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SAR EVALUATION REPORT

Applicant Name:
LG Electronics U.S.A., Inc.
111 Sylvan Avenue, North Building
Englewood Cliffs, NJ 07632
United States

Date of Testing:
06/15/20 - 07/30/20
Test Site/Location:
PCTEST, Columbia, MD, USA
Document Serial No.:
1M2005180086-01-R2.ZNF

FCC ID: **ZNFG900TM**

APPLICANT: **LG ELECTRONICS U.S.A., INC.**

DUT Type: Portable Handset
Application Type: Certification
FCC Rule Part(s): CFR §2.1093
Model: LM-G900TM
Additional Model(s): LMG900TM, G900TM

Equipment Class	Band & Mode	Tx Frequency	SAR			
			1g Head (W/kg)	1g Body-Worn (W/kg)	1g Hotspot (W/kg)	10g Phablet (W/kg)
PCE	CDMA/EVDO BC10 (§90S)	817.90 - 823.10 MHz	0.11	0.32	0.36	N/A
PCE	CDMA/EVDO BC0 (§22H)	824.70 - 848.31 MHz	0.11	0.36	0.40	N/A
PCE	PCS CDMA/EVDO	1851.25 - 1908.75 MHz	0.11	0.67	0.84	2.86
PCE	GSM/GPRS/EDGE 850	824.20 - 848.80 MHz	0.16	0.50	0.52	N/A
PCE	GSM/GPRS/EDGE 1900	1850.20 - 1909.80 MHz	< 0.1	0.31	0.51	N/A
PCE	UMTS 850	826.40 - 846.60 MHz	0.11	0.38	0.38	N/A
PCE	UMTS 1750	1712.4 - 1752.6 MHz	0.12	0.81	0.87	2.62
PCE	UMTS 1900	1852.4 - 1907.6 MHz	0.11	0.59	0.69	2.43
PCE	LTE Band 71	665.5 - 695.5 MHz	< 0.1	0.29	0.29	N/A
PCE	LTE Band 12	699.7 - 715.3 MHz	0.11	0.35	0.35	N/A
PCE	LTE Band 17	706.5 - 713.5 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 13	779.5 - 784.5 MHz	0.10	0.32	0.32	N/A
PCE	LTE Band 26 (Cell)	814.7 - 848.3 MHz	0.12	0.51	0.51	N/A
PCE	LTE Band 5 (Cell)	824.7 - 848.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 66 (AWS)	1710.7 - 1779.3 MHz	0.14	0.96	0.86	2.65
PCE	LTE Band 4 (AWS)	1710.7 - 1754.3 MHz	N/A	N/A	N/A	N/A
PCE	LTE Band 25 (PCS)	1850.7 - 1914.3 MHz	< 0.1	0.82	0.91	2.87
PCE	LTE Band 2 (PCS)	1850.7 - 1909.3 MHz	0.19	0.25	0.76	2.18
PCE	LTE Band 41	2498.5 - 2687.5 MHz	0.10	0.55	0.88	2.77
PCE	NR Band n71	665.5 - 695.5 MHz	< 0.1	0.24	0.24	N/A
PCE	NR Band n66 (AWS)	1712.5 - 1777.5 MHz	0.19	0.95	1.07	3.05
PCE	NR Band n25 (PCS)	1852.5 - 1912.5 MHz	0.22	0.61	0.88	2.67
PCE	NR Band n41	2501.01 - 2685.00 MHz	< 0.1	0.25	0.25	N/A
DTS	2.4 GHz WLAN	2412 - 2462 MHz	0.24	0.25	0.68	N/A
NII	U-NII-1	5180 - 5240 MHz	N/A	N/A	0.33	N/A
NII	U-NII-2A	5260 - 5320 MHz	0.20	0.31	N/A	1.10
NII	U-NII-2C	5500 - 5720 MHz	0.14	0.42	N/A	1.21
NII	U-NII-3	5745 - 5825 MHz	0.27	0.76	0.76	N/A
DSS/DTS	Bluetooth	2402 - 2480 MHz	< 0.1	< 0.1	< 0.1	N/A
Simultaneous SAR per KDB 690783 D01v01r03:			0.83	1.59	1.59	3.98

Note: This revised Test Report (S/N: 1M2005180086-01-R2.ZNF) supersedes and replaces the previously issued test report on the same subject device for the same type of testing as indicated. Please discard or destroy the previously issued test report(s) and dispose of it accordingly.
This wireless portable device has been shown to be capable of compliance for localized specific absorption rate (SAR) for uncontrolled environment/general population exposure limits specified in ANSI/IEEE C95.1-1992 and has been tested in accordance with the measurement procedures specified in Section 1.9 of this report; for North American frequency bands only.
I attest to the accuracy of data. All measurements reported herein were performed by me or were made under my supervision and are correct to the best of my knowledge and belief. I assume full responsibility for the completeness of these measurements and vouch for the qualifications of all persons taking them. Test results reported herein relate only to the item(s) tested.

Randy Ortanez
President

The SAR Tick is an initiative of the Mobile & Wireless Forum (MWF). While a product may be considered eligible, use of the SAR Tick logo requires an agreement with the MWF. Further details can be obtained by emailing: sartick@mwfai.info.

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1 DEVICE UNDER TEST

1.1 Device Overview

Band & Mode	Operating Modes	Tx Frequency
CDMA/EVDO BC10 (§90S)	Voice/Data	817.90 - 823.10 MHz
CDMA/EVDO BC0 (§22H)	Voice/Data	824.70 - 848.31 MHz
PCS CDMA/EVDO	Voice/Data	1851.25 - 1908.75 MHz
GSM/GPRS/EDGE 850	Voice/Data	824.20 - 848.80 MHz
GSM/GPRS/EDGE 1900	Voice/Data	1850.20 - 1909.80 MHz
UMTS 850	Voice/Data	826.40 - 846.60 MHz
UMTS 1750	Voice/Data	1712.4 - 1752.6 MHz
UMTS 1900	Voice/Data	1852.4 - 1907.6 MHz
LTE Band 71	Voice/Data	665.5 - 695.5 MHz
LTE Band 12	Voice/Data	699.7 - 715.3 MHz
LTE Band 17	Voice/Data	706.5 - 713.5 MHz
LTE Band 13	Voice/Data	779.5 - 784.5 MHz
LTE Band 26 (Cell)	Voice/Data	814.7 - 848.3 MHz
LTE Band 5 (Cell)	Voice/Data	824.7 - 848.3 MHz
LTE Band 66 (AWS)	Voice/Data	1710.7 - 1779.3 MHz
LTE Band 4 (AWS)	Voice/Data	1710.7 - 1754.3 MHz
LTE Band 25 (PCS)	Voice/Data	1850.7 - 1914.3 MHz
LTE Band 2 (PCS)	Voice/Data	1850.7 - 1909.3 MHz
LTE Band 41	Voice/Data	2498.5 - 2687.5 MHz
NR Band n71	Data	665.5 - 695.5 MHz
NR Band n66 (AWS)	Data	1712.5 - 1777.5 MHz
NR Band n25 (PCS)	Data	1852.5 - 1912.5 MHz
NR Band n41	Data	2501.01 - 2685.00 MHz
2.4 GHz WLAN	Voice/Data	2412 - 2462 MHz
U-NII-1	Voice/Data	5180 - 5240 MHz
U-NII-2A	Voice/Data	5260 - 5320 MHz
U-NII-2C	Voice/Data	5500 - 5720 MHz
U-NII-3	Voice/Data	5745 - 5825 MHz
Bluetooth	Data	2402 - 2480 MHz
NFC	Data	13.56 MHz
WMC	Data	500 Hz - 4 kHz

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1.2 Power Reduction for SAR

This device uses an independent fixed level power reduction mechanism for WLAN operations during voice or VoIP held to ear scenarios and in some simultaneous transmission conditions with 2.4 GHz + 5 GHz WLAN and/or EN-DC active. Per FCC Guidance, the held-to-ear exposure conditions were evaluated at reduced power according to the head SAR positions described in IEEE 1528-2013. Detailed descriptions of the power reduction mechanism are included in the operational description.

This device utilizes a power reduction mechanism for some wireless modes and bands for SAR compliance under portable hotspot conditions and under some conditions when the device is being used in close proximity to the user's hand. All hotspot SAR evaluations for this device were performed at the maximum allowed output power when hotspot is enabled. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device when being used in phablet use conditions. Detailed descriptions of the power reduction mechanism are included in the operational description.

1.3 Dual Display Cover

This device supports Dual Display (DD) Cover, which attaches to the device to provide a secondary display on the inside of the cover. The Dual Display Cover is free rotating from 0 to 360 degrees. Per FCC guidance, the use conditions of 0, 180 and 360 degrees were considered for SAR testing. SAR with the Dual Display Cover was measured for the overall worst case per each exposure condition (head, body-worn accessory, hotspot mode, etc.). Head SAR tests were performed with the accessory cover folded to 0 and 360 degrees to represent typical use conditions. Body-worn, Hotspot, and Phablet SAR tests were performed with accessory cover folded to 0, 180 and 360 degrees. When the output power for dual-display cover in a given exposure condition was higher than the power without the dual display cover, additional tests were performed at the higher output power level.

1.4 Nominal and Maximum Output Power Specifications

This device operates using the following maximum and nominal output power specifications. SAR values were scaled to the maximum allowed power to determine compliance per KDB Publication 447498 D01v06.

1.4.1 2G/3G/4G/5G Output Power

GSM/GPRS/EDGE 850										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
		1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Max or Dual Display	Max allowed power	33.7	33.7	31.2	30.2	29.2	27.2	26.7	25.7	24.7
	Nominal	33.2	33.2	30.7	29.7	28.7	26.7	26.2	25.2	24.2
GSM/GPRS/EDGE 1900										
Power Level		Voice (in dBm)	Data - Burst Average GMSK (in dBm)				Data - Burst Average 8-PSK (in dBm)			
		1 TX Slot	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots	1 TX Slots	2 TX Slots	3 TX Slots	4 TX Slots
Max or Dual Display	Max allowed power	30.7	30.7	29.2	27.2	25.7	26.2	25.7	24.7	23.7
	Nominal	30.2	30.2	28.7	26.7	25.2	25.7	25.2	24.2	23.2

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CDMA BC10 (815 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
Max or Dual Display	Max allowed power	24.7	24.7	24.7
	Nominal	24.2	24.2	24.2
CDMA BC0 (835 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
Max or Dual Display	Max allowed power	24.7	24.7	24.7
	Nominal	24.2	24.2	24.2
CDMA BC1 (1900 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		1x-RTT	EVDO Rev 0	EVDO Rev A
Max or Dual Display	Max allowed power	24.7	24.7	24.7
	Nominal	24.2	24.2	24.2
Hotspot Mode Active	Max allowed power	22.7	22.7	22.7
	Nominal	22.2	22.2	22.2
Proximity Sensor Active	Max allowed power	22.7	22.7	22.7
	Nominal	22.2	22.2	22.2

UMTS Band 5 (850 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6
Max or Dual Display	Max allowed power	24.7	24.7	24.7
	Nominal	24.2	24.2	24.2
UMTS Band 4 (1750 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6
Max or Dual Display	Max allowed power	24.7	24.7	24.7
	Nominal	24.2	24.2	24.2
Hotspot Mode Active	Max allowed power	22.7	22.7	22.7
	Nominal	22.2	22.2	22.2
Proximity Sensor Active	Max allowed power	22.7	22.7	22.7
	Nominal	22.2	22.2	22.2
UMTS Band 2 (1900 MHz)				
Power Level		Modulated Average Output Power (in dBm)		
		3GPP WCDMA Rel 99	3GPP HSDPA Rel 5	3GPP HSUPA Rel 6
Max or Dual Display	Max allowed power	24.7	24.7	24.7
	Nominal	24.2	24.2	24.2
Hotspot Mode Active	Max allowed power	22.7	22.7	22.7
	Nominal	22.2	22.2	22.2
Proximity Sensor Active	Max allowed power	22.7	22.7	22.7
	Nominal	22.2	22.2	22.2

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Mode / Band		Modulated Average Output Power (in dBm)		
		Max or Dual Display	Hotspot Mode Active	Proximity Sensor Active
LTE FDD Band 71	Max allowed power	25.5	25.5	25.5
	Nominal	25.0	25.0	25.0
LTE FDD Band 12	Max allowed power	25.5	25.5	25.5
	Nominal	25.0	25.0	25.0
LTE FDD Band 17	Max allowed power	25.5	25.5	25.5
	Nominal	25.0	25.0	25.0
LTE FDD Band 13	Max allowed power	25.5	25.5	25.5
	Nominal	25.0	25.0	25.0
LTE FDD Band 5	Max allowed power	25.5	25.5	25.5
	Nominal	25.0	25.0	25.0
LTE FDD Band 26	Max allowed power	25.5	25.5	25.5
	Nominal	25.0	25.0	25.0
LTE FDD Band 4	Max allowed power	25.2	23.2	23.2
	Nominal	24.7	22.7	22.7
LTE FDD Band 66	Max allowed power	25.2	23.2	23.2
	Nominal	24.7	22.7	22.7
LTE FDD Band 2	Max allowed power	25.2	23.2	23.2
	Nominal	24.7	22.7	22.7
LTE FDD Band 25	Max allowed power	25.2	23.2	23.2
	Nominal	24.7	22.7	22.7
LTE TDD Band 41 (PC3)	Max allowed power	25.2	24.2	24.2
	Nominal	24.7	23.7	23.7
LTE TDD Band 41 (PC2)	Max allowed power	27.7	26.7	26.7
	Nominal	27.2	26.2	26.2

Mode / Band		Modulated Average Output Power (in dBm)		
		Max or Dual Display	Hotspot Mode Active	Proximity Sensor Active
NR Band n71	Max allowed power	25.7	25.7	25.7
	Nominal	25.2	25.2	25.2
NR Band n66 (SA operation with Ant 2)	Max allowed power	25.2	23.2	23.2
	Nominal	24.7	22.7	22.7
NR Band n66 (NSA & SA operation with Ant 3)	Max allowed power	25.7	23.7	23.7
	Nominal	25.2	23.2	23.2
NR Band n25 (SA operation with Ant 2)	Max allowed power	25.2	23.2	23.2
	Nominal	24.7	22.7	22.7
NR Band n25 (NSA & SA operation with Ant 3)	Max allowed power	25.7	23.7	23.7
	Nominal	25.2	23.2	23.2
NR Band n41 (PC3) (NSA & SA)	Max allowed power	25.7	25.7	25.7
	Nominal	25.2	25.2	25.2
NR Band n41 (PC2) (SA only)	Max allowed power	27.7	27.7	27.7
	Nominal	27.2	27.2	27.2

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The below tables are applicable in the following condition:

- Inter-band ULCA Active for combos CA_12A-66A, CA_2A-12A

Mode / Band		Modulated Average Output Power (in dBm)		
		Max	Hotspot Mode Active	Proximity Sensor Active
LTE FDD Band 12 as PCC	Max allowed power	23.5	23.5	23.5
	Nominal	23.0	23.0	23.0
LTE FDD Band 66 Antenna 3 as PCC	Max allowed power	23.5	23.2	23.2
	Nominal	23.0	22.7	22.7
LTE FDD Band 2 Antenna 3 as PCC	Max allowed power	23.5	23.2	23.2
	Nominal	23.0	22.7	22.7

Mode / Band		Modulated Average Output Power (in dBm)		
		Max	Hotspot Mode Active	Proximity Sensor Active
LTE FDD Band 12 as SCC	Max allowed power	17.7	17.7	17.7
	Nominal	17.2	17.2	17.2
LTE FDD Band 66 Antenna 3 as SCC	Max allowed power	17.7	17.7	17.7
	Nominal	17.2	17.2	17.2
LTE FDD Band 2 Antenna 3 as SCC	Max allowed power	17.7	17.7	17.7
	Nominal	17.2	17.2	17.2

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1.4.2 Maximum Bluetooth and SISO/MIMO WLAN Output Power

Mode	Band	IEEE 802.11 (in dBm)											
		SISO						MIMO					
		Antenna 1/2											
		b		g		n		b		g (CDD + STBC)		n (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	21.0	20.0	19.5 ch. 1: 16.5 ch. 2: 16.5 ch. 10: 17.0 ch. 11: 17.0	18.5 15.5 15.5 16.0 16.0	18.5 ch. 1: 16.0 ch. 2: 16.0 ch. 10: 16.0 ch. 11: 16.0	17.5 15.0 15.0 15.0 15.0	24.0	23.0	22.5 ch. 1: 19.5 ch. 2: 19.5 ch. 10: 20.0 ch. 11: 20.0	21.5 18.5 18.5 19.0 19.0	21.5 ch. 1: 19.0 ch. 2: 19.0 ch. 10: 19.0 ch. 11: 19.0	20.5 18.0 18.0 18.0 18.0

Mode	Band	IEEE 802.11 (in dBm)											
		SISO						MIMO					
		Antenna 1/2											
		a		n		ac		a (CDD + STBC)		n (CDD+STBC, SDM)		ac (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	5200 MHz	19.5 ch. 36: 17.5 ch. 44: 17.5 ch. 48: 17.5	18.5 16.5 16.5 16.5	19.5 ch. 36: 17.3 ch. 44: 17.3 ch. 48: 17.4	18.5 16.3 16.3 16.4	19.5 ch. 36: 17.3 ch. 44: 17.3 ch. 48: 17.4	18.5 16.3 16.3 16.4	22.5 ch. 36: 20.5 ch. 44: 20.5 ch. 48: 20.5	21.5 19.5 19.5 19.5	22.5 ch. 36: 20.3 ch. 44: 20.3 ch. 48: 20.4	21.5 19.3 19.3 19.4	22.5 ch. 36: 20.3 ch. 44: 20.3 ch. 48: 20.4	21.5 19.3 19.3 19.4
	5300 MHz	19.5 ch. 52: 17.5 ch. 60: 17.6 ch. 64: 17.5	18.5 16.5 16.6 16.5	19.5 ch. 52: 17.4 ch. 60: 17.4 ch. 64: 17.4	18.5 16.4 16.4 16.4	19.5 ch. 52: 17.4 ch. 60: 17.4 ch. 64: 17.4	18.5 16.4 16.4 16.4	22.5 ch. 52: 20.5 ch. 60: 20.6 ch. 64: 20.5	21.5 19.5 19.6 19.5	22.5 ch. 52: 20.4 ch. 60: 20.4 ch. 64: 20.4	21.5 19.4 19.4 19.4	22.5 ch. 52: 20.4 ch. 60: 20.4 ch. 64: 20.4	21.5 19.4 19.4 19.4
	5500 MHz	17.8 ch. 100: 17.5 ch. 104: 17.4 ch. 108: 17.4 ch. 112: 17.4 ch. 116: 17.4 ch. 120: 17.3 ch. 124: 17.5 ch. 128: 17.5 ch. 132: 17.6 ch. 136: 17.6 ch. 144: 17.7	16.8 16.5 16.4 16.4 16.4 16.4 16.3 16.5 16.5 16.6 16.6 16.7	17.8 ch. 104: 17.5 ch. 108: 17.2 ch. 112: 17.2 ch. 116: 17.2 ch. 120: 17.3 ch. 124: 17.3 ch. 128: 17.3 ch. 132: 17.4 ch. 136: 17.5 ch. 140: 17.6 ch. 144: 17.6	16.8 16.5 16.2 16.2 16.2 16.3 16.3 16.3 16.4 16.5 16.6 16.6	17.8 ch. 104: 17.5 ch. 108: 17.2 ch. 112: 17.2 ch. 116: 17.2 ch. 120: 17.3 ch. 124: 17.3 ch. 128: 17.3 ch. 132: 17.4 ch. 136: 17.5 ch. 140: 17.6 ch. 144: 17.6	16.8 16.5 16.2 16.2 16.2 16.3 16.3 16.3 16.4 16.5 16.6 16.6	20.8 ch. 100: 20.5 ch. 104: 20.4 ch. 108: 20.4 ch. 112: 20.4 ch. 116: 20.4 ch. 120: 20.3 ch. 124: 20.5 ch. 128: 20.5 ch. 132: 20.6 ch. 136: 20.6 ch. 144: 20.7	19.8 19.5 19.4 19.4 19.4 19.4 19.3 19.5 19.5 19.6 19.6 19.7	20.8 ch. 104: 20.5 ch. 108: 20.2 ch. 112: 20.2 ch. 116: 20.2 ch. 120: 20.3 ch. 124: 20.3 ch. 128: 20.3 ch. 132: 20.4 ch. 136: 20.5 ch. 140: 20.6 ch. 144: 20.6	19.8 19.5 19.2 19.2 19.2 19.3 19.3 19.3 19.4 19.5 19.6 19.6	20.8 ch. 104: 20.5 ch. 108: 20.2 ch. 112: 20.2 ch. 116: 20.2 ch. 120: 20.3 ch. 124: 20.3 ch. 128: 20.3 ch. 132: 20.4 ch. 136: 20.5 ch. 140: 20.6 ch. 144: 20.6	19.8 19.5 19.2 19.2 19.2 19.3 19.3 19.3 19.4 19.5 19.6 19.6
	5800 MHz	19.9 ch. 149: 17.7 ch. 153: 17.6 ch. 161: 17.5 ch. 165: 19.8	18.9 16.7 16.6 16.5 18.8	19.9 ch. 149: 17.4 ch. 153: 17.4 ch. 161: 17.3 ch. 165: 19.6	18.9 16.4 16.4 16.3 18.6	19.9 ch. 149: 17.4 ch. 153: 17.4 ch. 161: 17.3 ch. 165: 19.6	18.9 16.4 16.4 16.3 18.6	22.9 ch. 149: 20.7 ch. 153: 20.6 ch. 161: 20.5 ch. 165: 22.8	21.9 19.7 19.6 19.5 21.8	22.9 ch. 149: 20.4 ch. 153: 20.4 ch. 161: 20.3 ch. 165: 22.6	21.9 19.4 19.4 19.3 21.6	22.9 ch. 149: 20.4 ch. 153: 20.4 ch. 161: 20.3 ch. 165: 22.6	21.9 19.4 19.4 19.3 21.6
5 GHz WIFI (40MHz BW)	5200 MHz			15.8 ch. 38: 15.5	14.8 14.5	15.8 ch. 38: 15.5	14.8 14.5			18.8 ch. 38: 18.5	17.8 17.5	18.8 ch. 38: 18.5	17.8 17.5
	5300 MHz			15.5 ch. 62: 15.0	14.5 14.0	15.5 ch. 62: 15.0	14.5 14.0			18.5 ch. 62: 18.0	17.5 17.0	18.5 ch. 62: 18.0	17.5 17.0
	5500 MHz			15.8 ch. 102: 14.0	14.8 13.0	15.8 ch. 102: 14.0	14.8 13.0			18.8 ch. 102: 17.0	17.8 16.0	18.8 ch. 102: 17.0	17.8 16.0
	5800 MHz			15.8	14.8	15.8	14.8			18.8	17.8	18.8	17.8
5 GHz WIFI (80MHz BW)	5200 MHz					13.8	12.8					16.8	15.8
	5300 MHz					14.0	13.0					17.0	16.0
	5500 MHz					14.0 ch. 106: 13.0 ch. 122: 13.8	13.0 12.0 12.8					17.0 ch. 106: 16.0 ch. 122: 16.8	16.0 15.0 15.8
	5800 MHz					13.6	12.6					16.6	15.6

Mode / Band		Modulated Average - Single Tx Chain (dBm)
Bluetooth	Maximum	**11.0**
	Nominal	**10.0**
Bluetooth LE	Maximum	**4.0**
	Nominal	**3.0**

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1.4.3 Reduced SISO/MIMO WLAN Output Power

The below tables are applicable in the following conditions:

- Head Conditions
- Simultaneous conditions with 2.4 GHz WLAN and 5 GHz WLAN
- Conditions with EN-DC Active

Mode	Band	IEEE 802.11 (in dBm)											
		SISO Antenna 1/2						MIMO					
		b		g		n		b		g (CDD + STBC)		n (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
2.4 GHz WIFI	2.45 GHz	15.0	14.0	15.0	14.0	15.0	14.0	18.0	17.0	18.0	17.0	18.0	17.0

Mode	Band	IEEE 802.11 (in dBm)											
		SISO Antenna 1/2						MIMO					
		a		n		ac		a (CDD + STBC)		n (CDD+STBC, SDM)		ac (CDD+STBC, SDM)	
Maximum / Nominal Power		Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.	Max	Nom.
5 GHz WIFI (20MHz BW)	5200 MHz	17.0	16.0	17.0	16.0	17.0	16.0	20.0	19.0	20.0	19.0	20.0	19.0
		ch. 36: 15.0	14.0	ch. 36: 15.0	14.0	ch. 36: 15.0	14.0	ch. 36: 18.0	17.0	ch. 36: 18.0	17.0	ch. 36: 18.0	17.0
		ch. 44: 15.0	14.0	ch. 44: 15.0	14.0	ch. 44: 15.0	14.0	ch. 44: 18.0	17.0	ch. 44: 18.0	17.0	ch. 44: 18.0	17.0
		ch. 48: 15.0	14.0	ch. 48: 15.0	14.0	ch. 48: 15.0	14.0	ch. 48: 18.0	17.0	ch. 48: 18.0	17.0	ch. 48: 18.0	17.0
	5300 MHz	17.0	16.0	17.0	16.0	17.0	16.0	20.0	19.0	20.0	19.0	20.0	19.0
		ch. 52: 15.0	14.0	ch. 52: 15.0	14.0	ch. 52: 15.0	14.0	ch. 52: 18.0	17.0	ch. 52: 18.0	17.0	ch. 52: 18.0	17.0
		ch. 60: 15.0	14.0	ch. 60: 15.0	14.0	ch. 60: 15.0	14.0	ch. 60: 18.0	17.0	ch. 60: 18.0	17.0	ch. 60: 18.0	17.0
		ch. 64: 15.0	14.0	ch. 64: 15.0	14.0	ch. 64: 15.0	14.0	ch. 64: 18.0	17.0	ch. 64: 18.0	17.0	ch. 64: 18.0	17.0
	5500 MHz	15.0	14.0	15.0	14.0	15.0	14.0	18.0	17.0	18.0	17.0	18.0	17.0
	5800 MHz	17.0	16.0	17.0	16.0	17.0	16.0	20.0	19.0	20.0	19.0	20.0	19.0
		ch. 149: 15.0	14.0	ch. 149: 15.0	14.0	ch. 149: 15.0	14.0	ch. 149: 18.0	17.0	ch. 149: 18.0	17.0	ch. 149: 18.0	17.0
		ch. 153: 15.0	14.0	ch. 153: 15.0	14.0	ch. 153: 15.0	14.0	ch. 153: 18.0	17.0	ch. 153: 18.0	17.0	ch. 153: 18.0	17.0
		ch. 161: 15.0	14.0	ch. 161: 15.0	14.0	ch. 161: 15.0	14.0	ch. 161: 18.0	17.0	ch. 161: 18.0	17.0	ch. 161: 18.0	17.0
5 GHz WIFI (40MHz BW)	5200 MHz			15.0	14.0	15.0	14.0			18.0	17.0	18.0	17.0
	5300 MHz			15.0	14.0	15.0	14.0			18.0	17.0	18.0	17.0
	5500 MHz			15.0	14.0	15.0	14.0			18.0	17.0	18.0	17.0
				ch. 102: 14.0	13.0	ch. 102: 14.0	13.0			ch. 102: 17.0	16.0	ch. 102: 17.0	16.0
	5800 MHz			15.0	14.0	15.0	14.0			18.0	17.0	18.0	17.0
5 GHz WIFI (80MHz BW)	5200 MHz					13.8	12.8					16.8	15.8
	5300 MHz					14.0	13.0					17.0	16.0
	5500 MHz					14.0	13.0					17.0	16.0
						ch. 106: 13.0	12.0					ch. 106: 16.0	15.0
						ch. 122: 13.8	12.8					ch. 122: 16.8	15.8
	5800 MHz					13.6	12.6					16.6	15.6

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1.5 DUT Antenna Locations

The overall dimensions of this device are > 9 x 5 cm. A diagram showing the location of the device antennas can be found in Appendix E. Since the diagonal dimension of this device is > 160 mm and <200 mm, it is considered a "phablet."

Table 1-1
Device Edges/Sides for SAR Testing

Mode	Back	Front	Top	Bottom	Right	Left
EVDO BC10 (§90S)	Yes	Yes	No	Yes	Yes	No
EVDO BC0 (§22H)	Yes	Yes	No	Yes	Yes	No
PCS EVDO	Yes	Yes	No	Yes	No	Yes
GPRS 850	Yes	Yes	No	Yes	Yes	No
GPRS 1900	Yes	Yes	No	Yes	No	Yes
UMTS 850	Yes	Yes	No	Yes	Yes	No
UMTS 1750	Yes	Yes	No	Yes	No	Yes
UMTS 1900	Yes	Yes	No	Yes	No	Yes
LTE Band 71	Yes	Yes	No	Yes	Yes	No
LTE Band 12	Yes	Yes	No	Yes	Yes	No
LTE Band 13	Yes	Yes	No	Yes	Yes	No
LTE Band 26 (Cell)	Yes	Yes	No	Yes	Yes	No
LTE Band 66 (AWS) Ant 2	Yes	Yes	No	Yes	No	Yes
LTE Band 66 (AWS) Ant 3	Yes	Yes	No	Yes	Yes	No
LTE Band 25 (PCS)	Yes	Yes	No	Yes	No	Yes
LTE Band 2 (PCS) Ant 3	Yes	Yes	No	Yes	Yes	No
LTE Band 41	Yes	Yes	No	Yes	No	Yes
NR Band n71	Yes	Yes	No	Yes	Yes	No
NR Band n66 SA	Yes	Yes	No	Yes	No	Yes
NR Band n66 NSA	Yes	Yes	No	Yes	Yes	No
NR Band n25 SA	Yes	Yes	No	Yes	No	Yes
NR Band n25 NSA	Yes	Yes	No	Yes	Yes	No
NR Band n41	Yes	Yes	No	No	Yes	No
2.4 GHz WLAN Ant 1	Yes	Yes	Yes	No	No	Yes
2.4 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN Ant 1	Yes	Yes	Yes	No	No	Yes
5 GHz WLAN Ant 2	Yes	Yes	Yes	No	No	Yes
Bluetooth	Yes	Yes	Yes	No	No	Yes

Note: Particular DUT edges were not required to be evaluated for wireless router SAR or phablet SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 941225 D06v02r01 Section III and FCC KDB Publication 648474 D04v01r03. The distances between the transmit antennas and the edges of the device are included in the filing. When wireless router mode is enabled, U-NII-2A, U-NII-2C operations are disabled.

1.6 Near Field Communications (NFC) Antenna

This DUT has NFC operations. The NFC antenna is integrated into the device for this model. Therefore, all SAR tests were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the NFC antenna can be found in Appendix E.

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1.7 Simultaneous Transmission Capabilities

According to FCC KDB Publication 447498 D01v06, transmitters are considered to be operating simultaneously when there is overlapping transmission, with the exception of transmissions during network hand-offs with maximum hand-off duration less than 30 seconds.

This device contains multiple transmitters that may operate simultaneously, and therefore requires a simultaneous transmission analysis according to FCC KDB Publication 447498 D01v06 4.3.2 procedures.

Table 1-2
Simultaneous Transmission Scenarios

No.	Capable Transmit Configuration	Head	Body-Worn Accessory	Wireless Router	Phablet	Notes
1	1x CDMA voice + 2.4 GHz WI-FI	Yes	Yes	N/A	Yes	
2	1x CDMA voice + 5 GHz WI-FI	Yes	Yes	N/A	Yes	
3	1x CDMA voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
4	1x CDMA voice + 2.4 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
5	1x CDMA voice + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
6	1x CDMA voice + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes	Yes	N/A	Yes	
7	1x CDMA voice + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
8	1x CDMA voice + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes	Yes	N/A	Yes	
9	1x CDMA voice + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
10	GSM voice + 2.4 GHz WI-FI	Yes	Yes	N/A	Yes	
11	GSM voice + 5 GHz WI-FI	Yes	Yes	N/A	Yes	
12	GSM voice + 2.4 GHz Bluetooth	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
13	GSM voice + 2.4 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
14	GSM voice + 5 GHz WI-FI MIMO	Yes	Yes	N/A	Yes	
15	GSM voice + + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes	Yes	N/A	Yes	
16	GSM voice + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
17	GSM voice + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes	Yes	N/A	Yes	
18	GSM voice + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	N/A	Yes	^ Bluetooth Tethering is considered
19	UMTS + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
20	UMTS + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
21	UMTS + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
22	UMTS + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
23	UMTS + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
24	UMTS + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes	Yes	Yes	Yes	
25	UMTS + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
26	UMTS + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes	Yes	Yes	Yes	
27	UMTS + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
28	LTE + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
29	LTE + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
30	LTE + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
31	LTE + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
32	LTE + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
33	LTE + + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes	Yes	Yes	Yes	
34	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
35	LTE + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes	Yes	Yes	Yes	
36	LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
37	CDMA/EVDO data + 2.4 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
38	CDMA/EVDO data + 5 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
39	CDMA/EVDO data + 2.4 GHz Bluetooth	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
40	CDMA/EVDO data + 2.4 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
41	CDMA/EVDO data + 5 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
42	CDMA/EVDO data + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
43	CDMA/EVDO data + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
44	CDMA/EVDO data + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
45	CDMA/EVDO data + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
46	GPRS/EDGE + 2.4 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
47	GPRS/EDGE + 5 GHz WI-FI	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
48	GPRS/EDGE + 2.4 GHz Bluetooth	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
49	GPRS/EDGE + 2.4 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
50	GPRS/EDGE + 5 GHz WI-FI MIMO	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
51	GPRS/EDGE + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
52	GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
53	GPRS/EDGE + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes*	Yes*	Yes	Yes	* Pre-installed VOIP applications are considered
54	GPRS/EDGE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes*^	Yes*	Yes^	Yes	* Pre-installed VOIP applications are considered ^ Bluetooth Tethering is considered
55	5G + LTE	Yes	Yes	Yes	Yes	
56	5G + LTE + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
57	5G + LTE + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
58	5G + LTE + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
59	5G + LTE + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
60	5G + LTE + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
61	5G + LTE + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes	Yes	Yes	Yes	
62	5G + LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
63	5G + LTE + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes	Yes	Yes	Yes	
64	5G + LTE + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
65	5G + 2.4 GHz WI-FI	Yes	Yes	Yes	Yes	
66	5G + 5 GHz WI-FI	Yes	Yes	Yes	Yes	
67	5G + 2.4 GHz Bluetooth	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
68	5G + 2.4 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
69	5G + 5 GHz WI-FI MIMO	Yes	Yes	Yes	Yes	
70	5G + 2.4 GHz WI-FI Ant 1 + 5 GHz WI-FI Ant 2	Yes	Yes	Yes	Yes	
71	5G + 2.4 GHz Bluetooth + 5 GHz WI-FI	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered
72	5G + 2.4 GHz WI-FI Ant 2 + 2.4 GHz Bluetooth	Yes	Yes	Yes	Yes	
73	5G + 2.4 GHz Bluetooth + 5 GHz WI-FI MIMO	Yes^	Yes	Yes^	Yes	^ Bluetooth Tethering is considered

1. 2.4 GHz WLAN antenna 1 and 2.4 GHz Bluetooth share the same antenna path and cannot transmit simultaneously.

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2. When the user utilizes multiple services in UMTS 3G mode it uses multi-Radio Access Bearer or multi-RAB. The power control is based on a physical control channel (Dedicated Physical Control Channel [DPCCH]) and power control will be adjusted to meet the needs of both services. Therefore, the UMTS+WLAN scenario also represents the UMTS Voice/DATA + WLAN Hotspot scenario.
3. Per the manufacturer, WIFI Direct is expected to be used in conjunction with a held-to-ear or body-worn accessory voice call. Therefore, there are no simultaneous transmission scenarios involving WIFI direct beyond that listed in the above table.
4. 5 GHz Wireless Router is only supported for the U-NII-1 and U-NII-3 by S/W, therefore U-NII-2A, and U-NII-2C were not evaluated for wireless router conditions.
5. This device supports 2x2 MIMO Tx for WLAN 802.11a/g/n/ac. 802.11a/g/n/ac supports CDD and STBC and 802.11n/ac additionally supports SDM. Each WLAN antenna can transmit independently or together when operating with MIMO.
6. This device supports VOLTE.
7. This device supports VOWIFI.
8. This device supports Bluetooth Tethering.
9. LTE + 5G NR FR1 Scenarios are limited to LTE Anchor Bands, B12/B2/B66
10. LTE operations in the table above include intra-band and inter-band ULCA operations with 2 carriers transmitting in the uplink.

1.8 Miscellaneous SAR Test Considerations

(A) WIFI/BT

Since U-NII-1 and U-NII-2A bands have the same maximum output power and the highest reported SAR for U-NII-2A is less than 1.2 W/kg, head and body-worn SAR is not required for U-NII-1 band according to FCC KDB Publication 248227 D01v02r02.

Since Wireless Router operations are not allowed by the chipset firmware using U-NII-2A and U-NII-2C WIFI, only 2.4 GHz, U-NII-1, and U-NII-3 WIFI Hotspot SAR tests and combinations are considered for SAR with respect to Wireless Router configurations according to FCC KDB 941225 D06v02r01.

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is greater than 160mm and less than 200mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-2A & U-NII-2C WLAN, phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WLAN, Bluetooth, U-NII-1, and U-NII-3 WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

This device supports IEEE 802.11ac with the following features:

a) Up to 80 MHz Bandwidth only for 5GHz
b) Up to 20 MHz Bandwidth only for 2.4 GHz
c) No aggregate channel configurations
d) 2 Tx antenna output
e) Up to 1024 QAM is supported
f) TDWR and Band gap channels are supported
g) MU-MIMO UL Operations are not supported

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(B) Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.
This device is only capable of QPSK HSUPA in the uplink. Therefore, no additional SAR tests are required beyond that described for devices with HSUPA in KDB 941225 D01v03r01.

LTE SAR for the higher modulations and lower bandwidths were not tested since the maximum average output power of all required channels and configurations was not more than 0.5 dB higher than the highest bandwidth; and the reported LTE SAR for the highest bandwidth was less than 1.45 W/kg for all configurations according to FCC KDB 941225 D05v02r04.

This device supports LTE Carrier Aggregation (CA) in the downlink. All uplink communications are identical to Release 8 specifications. Per FCC KDB Publication 941225 D05A v01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive. The downlink carrier aggregation exclusion analysis can be found in Appendix F.

Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is greater than 160mm and less than 200mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Additional SAR tests for phablet SAR were evaluated per KDB 616217 Section 6 (See Section 6.9 for more information).

This device supports LTE capabilities with overlapping transmission frequency ranges. When the supported frequency range of an LTE Band falls completely within an LTE band with a larger transmission frequency range, both LTE bands have the same target power (or the band with the larger transmission frequency range has a higher target power), and both LTE bands share the same transmission path and signal characteristics, SAR was only assessed for the band with the larger transmission frequency range.

This device supports intra-band LTE Carrier Aggregation (CA) for LTE Band 41 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per 2017 Fall TCB Workshop Notes.

This device supports uplink inter-band LTE Carrier Aggregation (CA) for LTE Bands 12, 2, 66 with two component carriers in the uplink. For 12A-66A and 2A-12A uplink conditions, LTE Band 2 and LTE Band 66 operate using Antenna 3. SAR tests were performed separately for antenna 3 for LTE Band 2 and LTE B66.

This device supports downlink 4x4 MIMO operations for some LTE Bands. Per May 2017 TCB Workshop Notes, SAR for 4x4 DL MIMO was not needed since the maximum average output power in 4x4 DL MIMO mode was not more than 0.25 dB higher than the maximum output power with 4x4 DL MIMO inactive. Additionally, SAR for 4x4 MIMO Downlink Carrier Aggregation was not needed since the maximum average output power in 4x4 MIMO Downlink Carrier Aggregation mode was not more than 0.25 dB higher than the maximum output power with 4x4 MIMO Downlink and downlink carrier aggregation inactive.

NR implementation of n71, n66, n25 and n41 is limited to EN-DC operations only, with LTE B2/B12/B66 acting as the anchor bands. Per FCC Guidance, SAR tests were performed separately for NR Bands and LTE Anchor Bands. Please see Section 11 for more details.

This device supports 64QAM on the uplink and 256QAM on the downlink for LTE Operations. Conducted powers for 64QAM uplink configurations were measured per Section 5.1 of FCC KDB Publication 941225 D05v02r05. SAR was not required for 64QAM since the highest maximum output power for 64QAM is ≤ ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45W/kg, per Section 5.2.4 of FCC KDB Publication 941225 D05v02r05.

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1.9 Guidance Applied

- IEEE 1528-2013
- FCC KDB Publication 941225 D01v03r01, D05v02r04, D05Av01r02, D06v02r01 (2G/3G/4G and Hotspot)
- FCC KDB Publication 248227 D01v02r02 (SAR Considerations for 802.11 Devices)
- FCC KDB Publication 447498 D01v06 (General SAR Guidance)
- FCC KDB Publication 865664 D01v01r04, D02v01r02 (SAR Measurements up to 6 GHz)
- FCC KDB Publication 648474 D04v01r03 (Phablet Procedures)
- FCC KDB Publication 616217 D04v01r02 (Proximity Sensor)
- October 2013 TCB Workshop Notes (GPRS Testing Considerations)
- May 2017 TCB Workshop Notes (LTE 4x4 Downlink MIMO)
- April 2018 TCB Workshop Notes (LTE Carrier Aggregation)

1.10 Device Serial Numbers

Several samples with identical hardware were used to support SAR testing. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units. The serial numbers used for each test are indicated alongside the results in Section 11.

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2 LTE AND NR INFORMATION

LTE Information					
Form Factor	Portable Handset				
Frequency Range of each LTE transmission band	LTE Band 71 (665.5 - 695.5 MHz)				
	LTE Band 12 (699.7 - 715.3 MHz)				
	LTE Band 17 (706.5 - 713.5 MHz)				
	LTE Band 13 (779.5 - 784.5 MHz)				
	LTE Band 26 (Cell) (814.7 - 848.3 MHz)				
	LTE Band 5 (Cell) (824.7 - 848.3 MHz)				
	LTE Band 66 (AWS) (1710.7 - 1779.3 MHz)				
	LTE Band 4 (AWS) (1710.7 - 1754.3 MHz)				
	LTE Band 25 (PCS) (1850.7 - 1914.3 MHz)				
	LTE Band 2 (PCS) (1850.7 - 1909.3 MHz)				
	LTE Band 41 (2498.5 - 2687.5 MHz)				
Channel Bandwidths	LTE Band 71: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 12: 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 17: 5 MHz, 10 MHz				
	LTE Band 13: 5 MHz, 10 MHz				
	LTE Band 26 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz				
	LTE Band 5 (Cell): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz				
	LTE Band 66 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 4 (AWS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 25 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 2 (PCS): 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
LTE Band 71: 5 MHz	665.5 (133147)		680.5 (133297)	695.5 (133447)	
LTE Band 71: 10 MHz	668 (133172)		680.5 (133297)	693 (133422)	
LTE Band 71: 15 MHz	670.5 (133197)		680.5 (133297)	690.5 (133397)	
LTE Band 71: 20 MHz	673 (133222)		680.5 (133297)	688 (133372)	
LTE Band 12: 1.4 MHz	699.7 (23017)		707.5 (23095)	715.3 (23173)	
LTE Band 12: 3 MHz	700.5 (23025)		707.5 (23095)	714.5 (23165)	
LTE Band 12: 5 MHz	701.5 (23035)		707.5 (23095)	713.5 (23155)	
LTE Band 12: 10 MHz	704 (23060)		707.5 (23095)	711 (23130)	
LTE Band 17: 5 MHz	706.5 (23755)		710 (23790)	713.5 (23825)	
LTE Band 17: 10 MHz	709 (23780)		710 (23790)	711 (23800)	
LTE Band 13: 5 MHz	779.5 (23205)		782 (23230)	784.5 (23255)	
LTE Band 13: 10 MHz	N/A		782 (23230)	N/A	
LTE Band 26 (Cell): 1.4 MHz	814.7 (26697)		831.5 (26865)	848.3 (27033)	
LTE Band 26 (Cell): 3 MHz	815.5 (26705)		831.5 (26865)	847.5 (27025)	
LTE Band 26 (Cell): 5 MHz	816.5 (26715)		831.5 (26865)	846.5 (27015)	
LTE Band 26 (Cell): 10 MHz	819 (26740)		831.5 (26865)	844 (26990)	
LTE Band 26 (Cell): 15 MHz	821.5 (26765)		831.5 (26865)	841.5 (26965)	
LTE Band 5 (Cell): 1.4 MHz	824.7 (20407)		836.5 (20525)	848.3 (20643)	
LTE Band 5 (Cell): 3 MHz	825.5 (20415)		836.5 (20525)	847.5 (20635)	
LTE Band 5 (Cell): 5 MHz	826.5 (20425)		836.5 (20525)	846.5 (20625)	
LTE Band 5 (Cell): 10 MHz	829 (20450)		836.5 (20525)	844 (20600)	
LTE Band 66 (AWS): 1.4 MHz	1710.7 (131979)		1745 (132322)	1779.3 (132665)	
LTE Band 66 (AWS): 3 MHz	1711.5 (131987)		1745 (132322)	1778.5 (132657)	
LTE Band 66 (AWS): 5 MHz	1712.5 (131997)		1745 (132322)	1777.5 (132647)	
LTE Band 66 (AWS): 10 MHz	1715 (132022)		1745 (132322)	1775 (132622)	
LTE Band 66 (AWS): 15 MHz	1717.5 (132047)		1745 (132322)	1772.5 (132597)	
LTE Band 66 (AWS): 20 MHz	1720 (132072)		1745 (132322)	1770 (132572)	
LTE Band 4 (AWS): 1.4 MHz	1710.7 (19957)		1732.5 (20175)	1754.3 (20393)	
LTE Band 4 (AWS): 3 MHz	1711.5 (19965)		1732.5 (20175)	1753.5 (20385)	
LTE Band 4 (AWS): 5 MHz	1712.5 (19975)		1732.5 (20175)	1752.5 (20375)	
LTE Band 4 (AWS): 10 MHz	1715 (20000)		1732.5 (20175)	1750 (20350)	
LTE Band 4 (AWS): 15 MHz	1717.5 (20025)		1732.5 (20175)	1747.5 (20325)	
LTE Band 4 (AWS): 20 MHz	1720 (20050)		1732.5 (20175)	1745 (20300)	
LTE Band 25 (PCS): 1.4 MHz	1850.7 (26047)		1882.5 (26365)	1914.3 (26683)	
LTE Band 25 (PCS): 3 MHz	1851.5 (26055)		1882.5 (26365)	1913.5 (26675)	
LTE Band 25 (PCS): 5 MHz	1852.5 (26065)		1882.5 (26365)	1912.5 (26665)	
LTE Band 25 (PCS): 10 MHz	1855 (26090)		1882.5 (26365)	1910 (26640)	
LTE Band 25 (PCS): 15 MHz	1857.5 (26115)		1882.5 (26365)	1907.5 (26615)	
LTE Band 25 (PCS): 20 MHz	1860 (26140)		1882.5 (26365)	1905 (26590)	
LTE Band 2 (PCS): 1.4 MHz	1850.7 (18607)		1880 (18900)	1909.3 (19193)	
LTE Band 2 (PCS): 3 MHz	1851.5 (18615)		1880 (18900)	1908.5 (19185)	
LTE Band 2 (PCS): 5 MHz	1852.5 (18625)		1880 (18900)	1907.5 (19175)	
LTE Band 2 (PCS): 10 MHz	1855 (18650)		1880 (18900)	1905 (19150)	
LTE Band 2 (PCS): 15 MHz	1857.5 (18675)		1880 (18900)	1902.5 (19125)	
LTE Band 2 (PCS): 20 MHz	1860 (18700)		1880 (18900)	1900 (19100)	
LTE Band 41: 5 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 10 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 15 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
LTE Band 41: 20 MHz	2506 (39750)	2549.5 (40185)	2593 (40620)	2636.5 (41055)	2680 (41490)
UE Category	DL UE Cat 18, UL UE Cat 13				
Modulations Supported in UL	QPSK, 16QAM, 64QAM				
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3~6.2.5? (manufacturer attestation to be provided)	YES				
A-MPR (Additional MPR) disabled for SAR Testing?	YES				
LTE Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations				
LTE Additional Information	This device does not support full CA features on 3GPP Release 15. It supports carrier aggregation, downlink MIMO features as shown in Section 9 and Appendix F. All other uplink communications are identical to the Release 8 specifications. Uplink communications are done on the PCC unless otherwise specified. The following LTE Release 15 Features are not supported: WIFI Offloading, Relay, HetNet, Enhanced eICIC, MDH, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA.				

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NR Information					
Form Factor	Portable Handset				
Frequency Range of each LTE transmission band	NR Band n71 (665.5 - 695.5 MHz)				
	NR Band n66 (AWS) (1712.5 - 1777.5 MHz)				
	NR Band n25 (PCS) (1852.5 - 1912.5 MHz)				
	NR Band n41 (2501.01 - 2685.00)				
Channel Bandwidths	NR Band n71: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
	NR Band n66 (AWS): 5 MHz, 10 MHz, 15 MHz, 20 MHz, 40 MHz				
	NR Band n25 (PCS): 5 MHz, 10 MHz, 15 MHz, 20 MHz, 25 MHz, 30 MHz, 40 MHz				
	NR Band n41: 10 MHz, 15 MHz, 20 MHz, 30 MHz, 40 MHz, 50 MHz, 60 MHz 80 MHz 90 MHz, 100 MHz				
Channel Numbers and Frequencies (MHz)	Low	Low-Mid	Mid	Mid-High	High
NR Band n71: 5 MHz	665.5 (133100)		680.5 (136100)	695.5 (139100)	
NR Band n71: 10 MHz	668 (133600)		680.5 (136100)	693 (138600)	
NR Band n71: 15 MHz	670.5 (134100)		680.5 (136100)	690.5 (138100)	
NR Band n71: 20 MHz	673 (134600)		680.5 (136100)	688 (137600)	
NR Band n66 (AWS): 5 MHz	1712.5 (342500)		1745 (349000)	1777.5 (355500)	
NR Band n66 (AWS): 10 MHz	1715 (343000)		1745 (349000)	1775 (355000)	
NR Band n66 (AWS): 15 MHz	1717.5 (343500)		1745 (349000)	1772.5 (354500)	
NR Band n66 (AWS): 20 MHz	1720 (344000)		1745 (349000)	1770 (354000)	
NR Band n66 (AWS): 40 MHz	1730 (346000)		1745 (349000)	1760 (352000)	
NR Band n25 (PCS): 5 MHz	1852.5 (370500)		1882.5 (376500)	1912.5 (382500)	
NR Band n25 (PCS): 10 MHz	1855 (371000)		1882.5 (376500)	1910 (382000)	
NR Band n25 (PCS): 15 MHz	1857.5 (371500)		1882.5 (376500)	1907.5 (381500)	
NR Band n25 (PCS): 20 MHz	1860 (372000)		1882.5 (376500)	1905 (381000)	
NR Band n25 (PCS): 25 MHz	1862.5 (372500)		1882.5 (376500)	1902.5 (380500)	
NR Band n25 (PCS): 30 MHz	1865 (373000)		1882.5 (376500)	1900 (380000)	
NR Band n25 (PCS): 40 MHz	1870 (374000)		1882.5 (376500)	1895 (379000)	
NR Band n41: 10 MHz	2501.01 (500202)	2547 (509400)	2592.99 (518598)	2639.01 (527802)	2685 (537000)
NR Band n41: 15 MHz	2503.5 (500700)	2548.26 (509652)	2592.99 (518598)	2637.75 (527550)	2682.51 (536502)
NR Band n41: 20 MHz	2506.02 (501204)	2549.49 (509898)	2592.99 (518598)	2636.49 (527298)	2679.99 (535998)
NR Band n41: 30 MHz	2511 (502200)	2552.01 (510402)	2592.99 (518598)	2634 (526800)	2674.98 (534996)
NR Band n41: 40 MHz	2516.01 (503202)	2567.34 (513468)	N/A	2618.67 (523734)	2670 (534000)
NR Band n41: 50 MHz	2521.02 (504204)		2592.99 (518598)	2664.99 (532998)	
NR Band n41: 60 MHz	2526 (505200)		2592.99 (518598)	2659.98 (531996)	
NR Band n41: 80 MHz	2536.02 (507204)		N/A	2649.99 (529998)	
NR Band n41: 90 MHz	2541 (508200)		N/A	2644.98 (528996)	
NR Band n41: 100 MHz	2546.01 (509202)		2592.99 (518598)	2640 (528000)	
SCS for NR Band n71/n66/n25	15 kHz				
SCS for NR Band n41	30 kHz				
Modulations Supported in UL	DFT-s-OFDM: QPSK, 16QAM, 64QAM CP-OFDM: QPSK, 16QAM, 64QAM				
A-MPR (Additional MPR) disabled for SAR Testing?	YES				
EN-DC Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations				
LTE Anchor Bands for NR Band n71	LTE Band 2/66				
LTE Anchor Bands for NR Band n66 (AWS)	LTE Band 2/12				
LTE Anchor Bands for NR Band n25 (PCS)	LTE Band 12/66				
LTE Anchor Bands for NR Band n41	LTE Band 2/66				

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3 INTRODUCTION

The FCC and Innovation, Science, and Economic Development Canada have adopted the guidelines for evaluating the environmental effects of radio frequency (RF) radiation in ET Docket 93-62 on Aug. 6, 1996 and Health Canada Safety Code 6 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. [1]

The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz [3] and Health Canada RF Exposure Guidelines Safety Code 6 [22]. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave [4] is used for guidance in measuring the Specific Absorption Rate (SAR) due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the International Committee for Non-Ionizing Radiation Protection (ICNIRP) in Biological Effects and Exposure Criteria for Radiofrequency Electromagnetic Fields," Report No. Vol 74. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

3.1 SAR Definition

Specific Absorption Rate is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ). It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Equation 3-1).

Equation 3-1
SAR Mathematical Equation

$$SAR = \frac{d}{dt}\left(\frac{dU}{dm}\right) = \frac{d}{dt}\left(\frac{dU}{\rho dv}\right)$$

SAR is expressed in units of Watts per Kilogram (W/kg).

$$SAR = \frac{\sigma \cdot E^2}{\rho}$$

where:

σ = conductivity of the tissue-simulating material (S/m)
ρ = mass density of the tissue-simulating material (kg/m^3)
E = Total RMS electric field strength (V/m)

NOTE: The primary factors that control rate of energy absorption were found to be the wavelength of the incident field in relation to the dimensions and geometry of the irradiated organism, the orientation of the organism in relation to the polarity of field vectors, the presence of reflecting surfaces, and whether conductive contact is made by the organism with a ground plane.[6]

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4 DOSIMETRIC ASSESSMENT

4.1 Measurement Procedure

The evaluation was performed using the following procedure compliant to FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013:

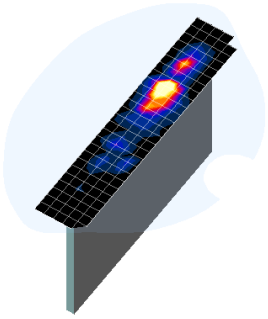

Figure 4-1
Sample SAR Area Scan

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013.
2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.
3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 4-1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):

   a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4-1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).

   b. After the maximum interpolated values were calculated between the points in the cube, the SAR was averaged over the spatial volume (1g or 10g) using a 3D-Spline interpolation algorithm. The 3D-spline is composed of three one-dimensional splines with the “Not a knot” condition (in x, y, and z directions). The volume was then integrated with the trapezoidal algorithm. One thousand points (10 x 10 x 10) were obtained through interpolation, in order to calculate the averaged SAR.

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.
4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

Table 4-1
Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

Frequency	Maximum Area Scan Resolution (mm) (Δx_{area}, Δy_{area})	Maximum Zoom Scan Resolution (mm) (Δx_{zoom}, Δy_{zoom})	Maximum Zoom Scan Spatial Resolution (mm)			Minimum Zoom Scan Volume (mm) (x,y,z)
			Uniform Grid	Graded Grid		
			$\Delta z_{zoom}(n)$	$\Delta z_{zoom}(1)$*	$\Delta z_{zoom}(n>1)$*	
≤ 2 GHz	≤ 15	≤ 8	≤ 5	≤ 4	≤ 1.5*Δz_{zoom}(n-1)	≥ 30
2-3 GHz	≤ 12	≤ 5	≤ 5	≤ 4	≤ 1.5*Δz_{zoom}(n-1)	≥ 30
3-4 GHz	≤ 12	≤ 5	≤ 4	≤ 3	≤ 1.5*Δz_{zoom}(n-1)	≥ 28
4-5 GHz	≤ 10	≤ 4	≤ 3	≤ 2.5	≤ 1.5*Δz_{zoom}(n-1)	≥ 25
5-6 GHz	≤ 10	≤ 4	≤ 2	≤ 2	≤ 1.5*Δz_{zoom}(n-1)	≥ 22

*Also compliant to IEEE 1528-2013 Table 6

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5 DEFINITION OF REFERENCE POINTS

5.1 EAR REFERENCE POINT

Figure 5-2 shows the front, back and side views of the SAM Twin Phantom. The point "M" is the reference point for the center of the mouth, "LE" is the left ear reference point (ERP), and "RE" is the right ERP. The ERP is 15mm posterior to the entrance to the ear canal (EEC) along the B-M line (Back-Mouth), as shown in Figure 5-1. The plane passing through the two ear canals and M is defined as the Reference Plane. The line N-F (Neck-Front), also called the Reference Pivoting Line, is not perpendicular to the reference plane (see Figure 5-1). Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning [5].

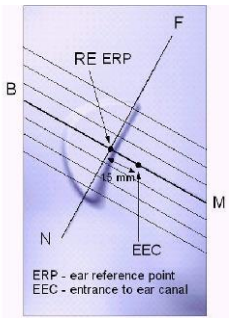

Figure 5-1
Close-Up Side view of ERP

5.2 HANDSET REFERENCE POINTS

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The test device was placed in a normal operating position with the acoustic output located along the "vertical centerline" on the front of the device aligned to the "ear reference point" (See Figure 5-3). The acoustic output was than located at the same level as the center of the ear reference point. The test device was positioned so that the "vertical centerline" was bisecting the front surface of the handset at its top and bottom edges, positioning the "ear reference point" on the outer surface of the both the left and right head phantoms on the ear reference point.

Figure 5-2
Front, back and side view of SAM Twin Phantom

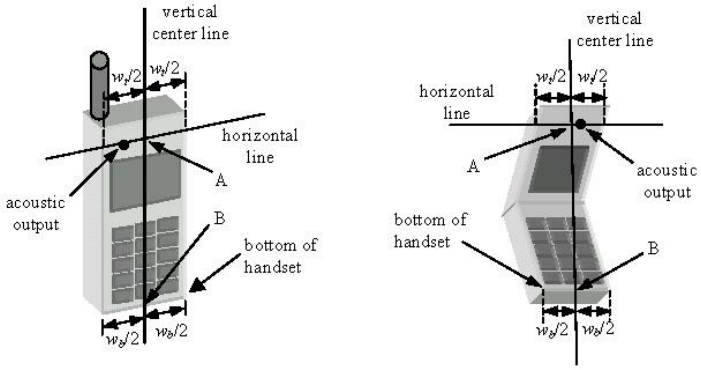

Figure 5-3
Handset Vertical Center & Horizontal Line Reference Points

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6 TEST CONFIGURATION POSITIONS

6.1 Device Holder

The device holder is made out of low-loss POM material having the following dielectric parameters: relative permittivity ε = 3 and loss tangent δ = 0.02.

6.2 Positioning for Cheek

1. The test device was positioned with the device close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 6-1), such that the plane defined by the vertical center line and the horizontal line of the phone is approximately parallel to the sagittal plane of the phantom.

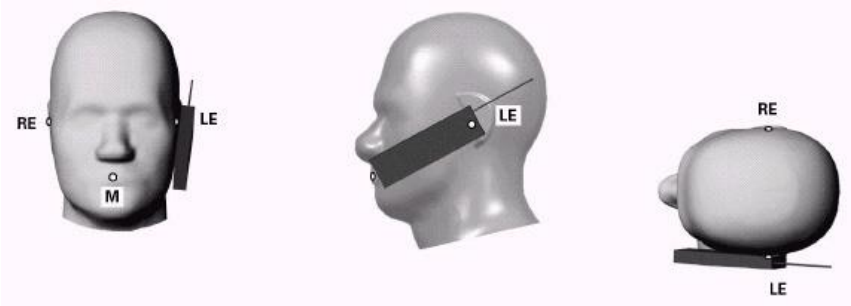

Figure 6-1 Front, Side and Top View of Cheek Position

2. The handset was translated towards the phantom along the line passing through RE & LE until the handset touches the pinna.
3. While maintaining the handset in this plane, the handset was rotated around the LE-RE line until the vertical centerline was in the reference plane.
4. The phone was then rotated around the vertical centerline until the phone (horizontal line) was symmetrical was respect to the line NF.
5. While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE, and maintaining the device contact with the ear, the device was rotated about the NF line until any point on the handset made contact with a phantom point below the ear (cheek) (See Figure 6-2).

6.3 Positioning for Ear / 15º Tilt

With the test device aligned in the “Cheek Position”:

1. While maintaining the orientation of the phone, the phone was retracted parallel to the reference plane far enough to enable a rotation of the phone by 15degrees.
2. The phone was then rotated around the horizontal line by 15 degrees.
3. While maintaining the orientation of the phone, the phone was moved parallel to the reference plane until any part of the handset touched the head. (In this position, point A was located on the line RE-LE). The tilted position is obtained when the contact is on the pinna. If the contact was at any location other than the pinna, the angle of the phone would then be reduced. In this situation, the tilted position was obtained when any part of the phone was in contact of the ear as well as a second part of the phone was in contact with the head (see Figure 6-2).

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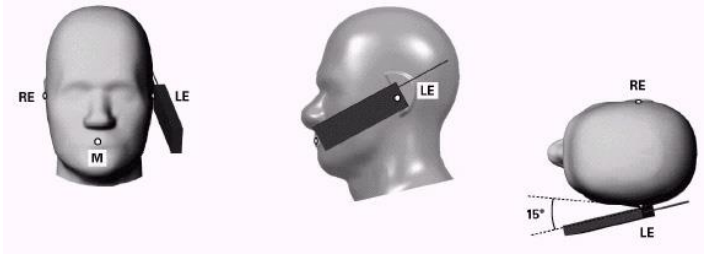

Figure 6-2 Front, Side and Top View of Ear/15º Tilt Position

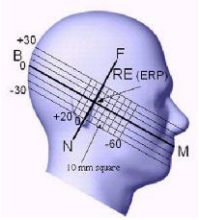

Figure 6-3
Side view w/ relevant markings

6.4 SAR Evaluations near the Mouth/Jaw Regions of the SAM Phantom

Antennas located near the bottom of a phone may require SAR measurements around the mouth and jaw regions of the SAM head phantom. This typically applies to clam-shell style phones that are generally longer in the unfolded normal use positions or to certain older style long rectangular phones. Per IEEE 1528-2013, a rotated SAM phantom is necessary to allow probe access to such regions. Both SAM heads of the TwinSAM-Chin20 are rotated 20 degrees around the NF line. Each head can be removed from the table for emptying and cleaning.

Under these circumstances, the following procedures apply, adopted from the FCC guidance on SAR handsets document FCC KDB Publication 648474 D04v01r03. The SAR required in these regions of SAM should be measured using a flat phantom. The phone should be positioned with a separation distance of 4 mm between the ear reference point (ERP) and the outer surface of the flat phantom shell. While maintaining this distance at the ERP location, the low (bottom) edge of the phone should be lowered from the phantom to establish the same separation distance between the peak SAR location identified by the truncated partial SAR distribution measured with the SAM phantom. The distance from the peak SAR location to the phone is determined by the straight line passing perpendicularly through the phantom surface. When it is not feasible to maintain 4 mm separation at the ERP while also establishing the required separation at the peak SAR location, the top edge of the phone will be allowed to touch the phantom with a separation < 4 mm at the ERP. The phone should not be tilted to the left or right while placed in this inclined position to the flat phantom.

6.5 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6-4). Per FCC KDB Publication 648474 D04v01r03, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

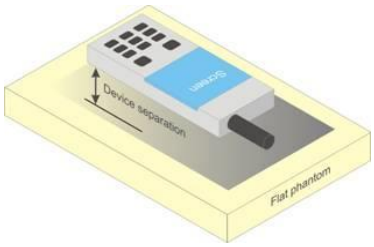

Figure 6-4
Sample Body-Worn Diagram

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that

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dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

Body-worn accessories may not always be supplied or available as options for some devices intended to be authorized for body-worn use. In this case, a test configuration with a separation distance between the back of the device and the flat phantom is used. Test position spacing was documented.
Transmitters that are designed to operate in front of a person's face, as in push-to-talk configurations, are tested for SAR compliance with the front of the device positioned to face the flat phantom in head fluid. For devices that are carried next to the body such as a shoulder, waist or chest-worn transmitters, SAR compliance is tested with the accessories, including headsets and microphones, attached to the device and positioned against a flat phantom in a normal use configuration.

6.6 Extremity Exposure Configurations

Devices that are designed or intended for use on extremities or mainly operated in extremity only exposure conditions; i.e., hands, wrists, feet and ankles, may require extremity SAR evaluation. When the device also operates in close proximity to the user's body, SAR compliance for the body is also required. The 1g body and 10g extremity SAR Exclusion Thresholds found in KDB Publication 447498 D01v06 should be applied to determine SAR test requirements.

Per KDB Publication 447498 D01v06, Cell phones (handsets) are not normally designed to be used on extremities or operated in extremity only exposure conditions. The maximum output power levels of handsets generally do not require extremity SAR testing to show compliance. Therefore, extremity SAR was not evaluated for this device.

6.7 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front, back and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

When the user enables the personal wireless router functions for the handset, actual operations include simultaneous transmission of both the WIFI transmitter and another licensed transmitter. Both transmitters often do not transmit at the same transmitting frequency and thus cannot be evaluated for SAR under actual use conditions due to the limitations of the SAR assessment probes. Therefore, SAR must be evaluated for each frequency transmission and mode separately and spatially summed with the WIFI transmitter according to FCC KDB Publication 447498 D01v06 procedures. The "Portable Hotspot" feature on the handset was NOT activated during SAR assessments, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

6.8 Phablet Configurations

For smart phones with a display diagonal dimension > 150 mm or an overall diagonal dimension > 160 mm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the phablets procedures outlined in KDB Publication 648474 D04v01r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance.

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6.9 Proximity Sensor Considerations

This device uses a power reduction mechanism to reduce output powers in certain use conditions when the device is used close the user's body.

When the device's antenna is within a certain distance of the user, the sensor activates and reduces the maximum allowed output power. However, the sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, additional evaluation is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a non-reduced output power level. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device at these additional test positions. Sensor triggering distance summary data is included in Appendix G.

The sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the sensor entirely covers the antennas.

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7 RF EXPOSURE LIMITS

7.1 Uncontrolled Environment

UNCONTROLLED ENVIRONMENTS are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure. The general population/uncontrolled exposure limits are applicable to situations in which the general public may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Members of the general public would come under this category when exposure is not employment-related; for example, in the case of a wireless transmitter that exposes persons in its vicinity.

7.2 Controlled Environment

CONTROLLED ENVIRONMENTS are defined as locations where there is exposure that may be incurred by persons who are aware of the potential for exposure, (i.e. as a result of employment or occupation). In general, occupational/controlled exposure limits are applicable to situations in which persons are exposed as a consequence of their employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 7-1
SAR Human Exposure Specified in ANSI/IEEE C95.1-1992 and Health Canada Safety Code 6

HUMAN EXPOSURE LIMITS		
	UNCONTROLLED ENVIRONMENT *General Population* (W/kg) or (mW/g)	CONTROLLED ENVIRONMENT *Occupational* (W/kg) or (mW/g)
Peak Spatial Average SAR Head	1.6	8.0
Whole Body SAR	0.08	0.4
Peak Spatial Average SAR Hands, Feet, Ankle, Wrists, etc.	4.0	20

1. The Spatial Peak value of the SAR averaged over any 1 gram of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.
2. The Spatial Average value of the SAR averaged over the whole body.
3. The Spatial Peak value of the SAR averaged over any 10 grams of tissue (defined as a tissue volume in the shape of a cube) and over the appropriate averaging time.

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8 FCC MEASUREMENT PROCEDURES

Power measurements for licensed transmitters are performed using a base station simulator under digital average power.

8.1 Measured and Reported SAR

Per FCC KDB Publication 447498 D01v06, when SAR is not measured at the maximum power level allowed for production units, the results must be scaled to the maximum tune-up tolerance limit according to the power applied to the individual channels tested to determine compliance. For simultaneous transmission, the measured aggregate SAR must be scaled according to the sum of the differences between the maximum tune-up tolerance and actual power used to test each transmitter. When SAR is measured at or scaled to the maximum tune-up tolerance limit, the results are referred to as *reported* SAR. The highest *reported* SAR results are identified on the grant of equipment authorization according to procedures in KDB 690783 D01v01r03.

8.2 3G SAR Test Reduction Procedure

In FCC KDB Publication 941225 D01v03r01, certain transmission modes within a frequency band and wireless mode evaluated for SAR are defined as primary modes. The equivalent modes considered for SAR test reduction are denoted as secondary modes. When the maximum output power including tune-up tolerance specified for production units in a secondary mode is ≤ 0.25 dB higher than the primary mode or when the highest reported SAR of the primary mode, scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode, is ≤ 1.2 W/kg, SAR measurements are not required for the secondary mode. These criteria are referred to as the 3G SAR test reduction procedure. When the 3G SAR test reduction procedure is not satisfied, SAR measurements are additionally required for the secondary mode.

8.3 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

The device is placed into a simulated call using a base station simulator in a RF shielded chamber. Establishing connections in this manner ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. Devices under test are evaluated prior to testing, with a fully charged battery and were configured to operate at maximum output power. In order to verify that the device is tested throughout the SAR test at maximum output power, the SAR measurement system measures a “point SAR” at an arbitrary reference point at the start and end of the 1 gram SAR evaluation, to assess for any power drifts during the evaluation. If the power drift deviates by more than 5%, the SAR test and drift measurements are repeated.

8.4 SAR Measurement Conditions for CDMA2000

The following procedures were performed according to FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.”

8.4.1 Output Power Verification

See 3GPP2 C.S0011/TIA-98-E as recommended by FCC KDB Publication 941225 D01v03r01 “3G SAR Measurement Procedures.” Maximum output power is verified on the High, Middle and Low channels according to procedures in section 4.4.5.2 of 3GPP2 C.S0011/TIA-98-E. SO55 tests were measured with power control bits in the “All Up” condition.

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1. If the mobile station (MS) supports Reverse TCH RC 1 and Forward TCH RC 1, set up a call using Fundamental Channel Test Mode 1 (RC=1/1) with 9600 bps data rate only.
2. Under RC1, C.S0011 Table 4.4.5.2-1, Table 8-1 parameters were applied.
3. If the MS supports the RC 3 Reverse FCH, RC3 Reverse SCH_0 and demodulation of RC 3,4, or 5, set up a call using Supplemental Channel Test Mode 3 (RC 3/3) with 9600 bps Fundamental Channel and 9600 bps SCH0 data rate.
4. Under RC3, C.S0011 Table 4.4.5.2-2, Table 8-2 was applied.

Table 8-1
Parameters for Max. Power for RC1

Parameter	Units	Value
$\hat{I}_{or}$	dBm/1.23 MHz	-104
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

Table 8-2
Parameters for Max. Power for RC3

Parameter	Units	Value
$\hat{I}_{or}$	dBm/1.23 MHz	-86
$\frac{\text{Pilot } E_c}{I_{or}}$	dB	-7
$\frac{\text{Traffic } E_c}{I_{or}}$	dB	-7.4

5. FCHs were configured at full rate for maximum SAR with “All Up” power control bits.

8.4.2 Head SAR Measurements

SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at fullrate in SO55. The 3G SAR test reduction procedure is applied to RC1 with RC3 as the primary mode; otherwise, SAR is required for the channel with maximum measured output in RC1 using the head exposure configuration that results in the highest reported SAR in RC3.

Head SAR is additionally evaluated using EVDO Rev. A to support compliance for VoIP operations. See Section 8.4.5 for EVDO Rev. A configuration parameters.

8.4.3 Body-worn SAR Measurements

SAR for body-worn exposure configurations is measured in RC3 with the DUT configured to transmit at full rate on FCH with all other code channels disabled using TDSO / SO32. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCHn), with FCH only as the primary mode. Otherwise, SAR is required for multiple code channel configuration (FCH + SCHn), with FCH at full rate and SCH0 enabled at 9600 bps, using the highest reported SAR configuration for FCH only. When multiple code channels are enabled, the transmitter output can shift by more than 0.5 dB and may lead to higher SAR drifts and SCH dropouts.

The 3G SAR test reduction procedure is applied to body-worn accessory SAR in RC1 with RC3 as the primary mode. Otherwise, SAR is required for RC1, with SO55 and full rate, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

8.4.4 Body-worn SAR Measurements for EVDO Devices

For handsets with EVDO capabilities, the 3G SAR test reduction procedure is applied to EVDO Rev. 0 with 1x RTT RC3 as the primary mode to determine body-worn accessory test requirements. Otherwise, body-worn accessory SAR is required for Rev. 0, at 153.6 kbps, using the highest reported SAR configuration for body-worn accessory exposure in RC3.

The 3G SAR test reduction procedure is applied to Rev. A, with Rev. 0 as the primary mode to determine body-worn accessory SAR test requirements. When SAR is not required for Rev. 0, the 3G SAR test reduction is applied with 1x RTT RC3 as the primary mode.

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When SAR is required for EVDO Rev. A, SAR is measured with a Reverse Data Channel payload size of 4096 bits and a Termination Target of 16 slots defined for Subtype 2 Physical Layer configurations, using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0 or 1x RTT RC3, as appropriate.

8.4.5 Body SAR Measurements for EVDO Hotspot

Hotspot Body SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0. The 3G SAR test reduction procedure is applied to Rev. A, Subtype 2 Physical layer configuration, with Rev. 0 as the primary mode; otherwise, SAR is measured for Rev. A using the highest reported SAR configuration for body-worn accessory exposure in Rev. 0. The AT is tested with a Reverse Data Channel rate of 153.6 kbps in Subtype 0/1 Physical Layer configurations; and a Reverse Data Channel payload size of 4096 bits and Termination Target of 16 slots in Subtype 2 Physical Layer configurations.

For EVDO data devices that also support 1x RTT voice and/or data operations, the 3G SAR test reduction procedure is applied to 1x RTT RC3 and RC1 with EVDO Rev. 0 and Rev. A as the respective primary modes. Otherwise, the 'Body-Worn Accessory SAR' procedures in the '3GPP2 CDMA 2000 1x Handsets' section are applied.

8.5 SAR Measurement Conditions for UMTS

8.5.1 Output Power Verification

Maximum output power is verified on the High, Middle and Low channels according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC with TPC (transmit power control) set to all "1s" or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

8.5.2 Head SAR Measurements

SAR for next to the ear head exposure is measured using a 12.2 kbps RMC with TPC bits configured to all "1's". The 3G SAR test reduction procedure is applied to AMR configurations with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured for 12.2 kbps AMR in 3.4 kbps SRB (signaling radio bearer) using the highest reported SAR configuration in 12.2 kbps RMC for head exposure.

8.5.3 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all "1s". The 3G SAR test reduction procedure is applied to other spreading codes and multiple $DPDCH_n$ configurations supported by the handset with 12.2 kbps RMC as the primary mode. Otherwise, SAR is measured using an applicable RMC configuration with the corresponding spreading code or $DPDCH_n$, for the highest reported SAR configuration in 12.2 kbps RMC.

8.5.4 SAR Measurements with Rel 5 HSDPA

The 3G SAR test reduction procedure is applied to HSDPA body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSDPA is measured using an FRC with H-Set 1 in Sub-test 1 and a 12.2 kbps RMC configured in Test Loop Mode 1, for the highest reported SAR configuration in 12.2 kbps RMC without HSDPA. Handsets with both HSDPA and HSUPA are tested according to Release 6 HSPA test procedures.

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8.5.5 SAR Measurements with Rel 6 HSUPA

The 3G SAR test reduction procedure is applied to HSPA (HSUPA/HSDPA with RMC) body configurations with 12.2 kbps RMC as the primary mode. Otherwise, Body SAR for HSPA is measured with E-DCH Sub-test 5, using H-Set 1 and QPSK for FRC and a 12.2 kbps RMC configured in Test Loop Mode 1 and power control algorithm 2, according to the highest reported body SAR configuration in 12.2 kbps RMC without HSPA.

When VOIP applies to head exposure, the 3G SAR test reduction procedure is applied with 12.2 kbps RMC as the primary mode; otherwise, the same HSPA configuration used for body SAR measurements are applied to head exposure testing.

8.6 SAR Measurement Conditions for LTE

LTE modes are tested according to FCC KDB 941225 D05v02r04 publication. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR [4]. The R&S CMW500 or Anritsu MT8820C simulators are used for LTE output power measurements and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

8.6.1 Spectrum Plots for RB Configurations

A properly configured base station simulator was used for SAR tests and power measurements. Therefore, spectrum plots for RB configurations were not required to be included in this report.

8.6.2 MPR

MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.

8.6.3 A-MPR

A-MPR (Additional MPR) has been disabled for all SAR tests by setting NS=01 on the base station simulator.

8.6.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r04:

a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
    i. The required channel and offset combination with the highest maximum output power is required for SAR.
    ii. When the reported SAR is ≤ 0.8 W/kg, testing of the remaining RB offset configurations and required test channels is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
    iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB

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and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 0.8 W/kg.

d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to ½ dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is <1.45 W/kg.

8.6.5 TDD

LTE TDD testing is performed using the SAR test guidance provided in FCC KDB 941225 D05v02r04. TDD is tested at the highest duty factor using UL-DL configuration 0 with special subframe configuration 6 and applying the FDD LTE procedures in KDB 941225 D05v02r04. SAR testing is performed using the extended cyclic prefix listed in 3GPP TS 36.211 Section 4.

8.6.6 Downlink Only Carrier Aggregation

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02. The RRC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. Additional conducted output powers are measured with the downlink carrier aggregation active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for downlink only carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

8.7 SAR Testing with 802.11 Transmitters

The normal network operating configurations of 802.11 transmitters are not suitable for SAR measurements. Unpredictable fluctuations in network traffic and antenna diversity conditions can introduce undesirable variations in SAR results. The SAR for these devices should be measured using chipset based test mode software to ensure the results are consistent and reliable. See KDB Publication 248227 D01v02r02 for more details.

8.7.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters.

A periodic duty factor is required for current generation SAR systems to measure SAR. When 802.11 frame gaps are accounted for in the transmission, a maximum transmission duty factor of 92 - 96% is typically achievable in most test mode configurations. A minimum transmission duty factor of 85% is required to avoid certain hardware and device implementation issues related to wide range SAR scaling. The reported SAR is scaled to 100% transmission duty factor to determine compliance at the maximum tune-up tolerance limit.

8.7.2 U-NII-1 and U-NII-2A

For devices that operate in both U-NII-1 and U-NII-2A bands, when the same maximum output power is specified for both bands, SAR measurement using OFDM SAR test procedures is not required for U-NII-1 unless the highest reported SAR for U-NII-2A is > 1.2 W/kg. When different maximum output powers are specified for the bands, SAR measurement for the U-NII band with the lower maximum output power is not

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required unless the highest reported SAR for the U-NII band with the higher maximum output power, adjusted by the ratio of lower to higher specified maximum output power for the two bands, is > 1.2 W/kg. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements. When Terminal Doppler Weather Radar (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification. Unless band gap channels are permanently disabled, SAR must be considered for these channels. Each band is tested independently according to the normally required OFDM SAR measurement and probe calibration frequency points requirements.

8.7.4 Initial Test Position Procedure

For exposure conditions with multiple test positions, such as handset operating next to the ear, devices with hotspot mode or UMPC mini-tablet, procedures for initial test position can be applied. Using the transmission mode determined by the DSSS procedure or initial test configuration, area scans are measured for all positions in an exposure condition. The test position with the highest extrapolated (peak) SAR is used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions is required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.5 2.4 GHz SAR Test Requirements

SAR is measured for 2.4 GHz 802.11b DSSS using either the fixed test position or, when applicable, the initial test position procedure. SAR test reduction is determined according to the following:

1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.

2) When the reported SAR is > 0.8 W/kg, SAR is required for that position using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

2.4 GHz 802.11 g/n OFDM are additionally evaluated for SAR if the highest reported SAR for 802.11b, adjusted by the ratio of the OFDM to DSSS specified maximum output power, is > 1.2 W/kg. When SAR is required for OFDM modes in 2.4 GHz band, the Initial Test Configuration Procedures should be followed. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.6 OFDM Transmission Mode and SAR Test Channel Selection

When the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a, 802.11n and 802.11ac or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 802.11n and 802.11ac or 802.11g then 802.11n, is used for SAR measurement. When the maximum output power are the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

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8.7.7 Initial Test Configuration Procedure

For OFDM, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output power is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order IEEE 802.11 mode. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required. Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured. When there are multiple untested channels having the same subsequent highest average RF output power, the channel with higher frequency from the lowest 802.11 mode is considered for SAR measurements (See Section 8.7.6). When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.8 Subsequent Test Configuration Procedures

For OFDM configurations in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure. When the highest reported SAR (for the initial test configuration), adjusted by the ratio of the specified maximum output power of the subsequent test configuration to initial test configuration, is ≤ 1.2 W/kg, no additional SAR tests for the subsequent test configurations are required. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

8.7.9 MIMO SAR Considerations

Per KDB Publication 248227 D01v02r02, the simultaneous SAR provisions in KDB Publication 447498 D01v06 should be applied to determine simultaneous transmission SAR test exclusion for WIFI MIMO. If the sum of 1g single transmission chain SAR measurements is <1.6 W/kg, no additional SAR measurements for MIMO are required. Alternatively, SAR for MIMO can be measured with all antennas transmitting simultaneously at the specified maximum output power of MIMO operation. When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

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9 RF CONDUCTED POWERS

9.1 GSM Conducted Powers

Table 9-1
Maximum Conducted Power

Maximum Burst-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	32.91	32.92	30.57	29.66	**28.64**	27.03	26.16	24.93	23.98
	190	32.93	33.00	30.64	29.74	**28.71**	26.96	26.10	24.87	23.88
	251	33.01	33.06	30.70	29.78	**28.78**	26.84	26.02	24.76	23.79
GSM 1900	512	30.18	30.24	28.88	**26.87**	25.34	26.03	24.79	23.75	22.46
	661	30.20	30.22	28.87	**26.85**	25.30	26.16	25.10	24.01	22.73
	810	30.06	30.09	28.79	**26.77**	25.25	26.11	24.97	23.95	22.59

Calculated Maximum Frame-Averaged Output Power										
		Voice	*GPRS/EDGE Data (GMSK)*				*EDGE Data (8-PSK)*			
Band	**Channel**	**GSM [dBm] CS (1 Slot)**	**GPRS [dBm] 1 Tx Slot**	**GPRS [dBm] 2 Tx Slot**	**GPRS [dBm] 3 Tx Slot**	**GPRS [dBm] 4 Tx Slot**	**EDGE [dBm] 1 Tx Slot**	**EDGE [dBm] 2 Tx Slot**	**EDGE [dBm] 3 Tx Slot**	**EDGE [dBm] 4 Tx Slot**
GSM 850	128	23.71	23.72	24.38	25.23	**25.46**	17.83	19.97	20.50	20.80
	190	23.73	23.80	24.45	25.31	**25.53**	17.76	19.91	20.44	20.70
	251	23.81	23.86	24.51	25.35	**25.60**	17.64	19.83	20.33	20.61
GSM 1900	512	20.98	21.04	22.69	**22.44**	22.16	16.83	18.60	19.32	19.28
	661	21.00	21.02	22.68	**22.42**	22.12	16.96	18.91	19.58	19.55
	810	20.86	20.89	22.60	**22.34**	22.07	16.91	18.78	19.52	19.41
GSM 850	**Frame Avg.Targets:**	24.00	24.00	24.51	25.27	**25.52**	17.50	20.01	20.77	21.02
GSM 1900		21.00	21.00	22.51	**22.27**	22.02	16.50	19.01	19.77	20.02

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Note:

1. Both burst-averaged and calculated frame-averaged powers are included. Frame-averaged power was calculated from the measured burst-averaged power by converting the slot powers into linear units and calculating the energy over 8 timeslots.
2. GPRS/EDGE (GMSK) output powers were measured with coding scheme setting of 1 (CS1) on the base station simulator. CS1 was configured to measure GPRS output power measurements and SAR to ensure GMSK modulation in the signal. Our Investigation has shown that CS1 - CS4 settings do not have any impact on the output levels or modulation in the GPRS modes.
3. EDGE (8-PSK) output powers were measured with MCS7 on the base station simulator. MCS7 coding scheme was used to measure the output powers for EDGE since investigation has shown that choosing MCS7 coding scheme will ensure 8-PSK modulation. It has been shown that MCS levels that produce 8-PSK modulation do not have an impact on output power.

GSM Class: B
GPRS Multislot class: 12 (Max 4 Tx uplink slots)
EDGE Multislot class: 12 (Max 4 Tx uplink slots)
DTM Multislot Class: N/A

Figure 9-1
Power Measurement Setup

9.2 CDMA Conducted Powers

Table 9-2
Maximum Conducted Power

Band	Channel	Rule Part	Frequency	SO55 [dBm]	SO55 [dBm]	TDSO SO32 [dBm]	TDSO SO32 [dBm]	1x EvDO Rev. 0 [dBm]	1x EvDO Rev. A [dBm]
	F-RC		MHz	RC1	RC3	FCH+SCH	FCH	(RTAP)	(RETAP)
Cellular	564	90S	820.1	24.69	24.70	24.67	24.64	24.63	24.66
Cellular	1013	22H	824.7	24.49	24.53	24.51	24.55	24.47	24.51
	384	22H	836.52	24.59	24.64	24.67	24.67	24.65	24.67
	777	22H	848.31	24.57	24.61	24.57	24.58	24.52	24.52
PCS	25	24E	1851.25	24.55	24.60	24.62	24.62	24.45	24.49
	600	24E	1880	24.63	24.69	24.64	24.65	24.54	24.57
	1175	24E	1908.75	24.54	24.59	24.56	24.61	24.56	24.58

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Table 9-3
Reduced Conducted Power

				Loopback		Data			
Band	**Channel**	**Rule Part**	**Frequency**	**SO55 [dBm]**	**SO55 [dBm]**	**TDSO SO32 [dBm]**	**TDSO SO32 [dBm]**	**1x EvDO Rev. 0 [dBm]**	**1x EvDO Rev. A [dBm]**
	F-RC		MHz	RC1	RC3	FCH+SCH	FCH	(RTAP)	(RETAP)
PCS	25	24E	1851.25	22.29	22.43	22.42	22.43	22.46	22.41
	600	24E	1880	22.30	22.43	22.37	22.38	22.46	22.43
	1175	24E	1908.75	22.23	22.40	22.37	22.42	22.43	22.40

Note: RC1 is only applicable for IS-95 compatibility. For FCC Rule Part 90S, Per FCC KDB Publication 447498 D01v06 4.1.g), only one channel is required since the device operates within the transmission range of 817.90 – 823.10 MHz**.**

Figure 9-2
Power Measurement Setup

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9.3 UMTS Conducted Powers

Table 9-4
Maximum Conducted Power

3GPP Release Version	Mode	3GPP 34.121 Subtest	Cellular Band [dBm]			AWS Band [dBm]			PCS Band [dBm]			MPR [dB]
			4132	4183	4233	1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	24.36	24.29	24.33	24.36	24.40	24.60	24.37	24.39	24.32	-
99		12.2 kbps AMR	24.41	24.35	24.37	24.31	24.35	24.35	24.47	24.41	24.31	-
6	HSDPA	Subtest 1	24.46	24.19	24.39	24.46	24.45	24.50	24.50	24.52	24.45	0
6		Subtest 2	24.33	24.12	24.33	24.33	24.18	24.20	24.43	24.40	24.31	0
6		Subtest 3	23.65	23.78	23.83	23.92	23.97	23.99	23.97	23.74	23.96	0.5
6		Subtest 4	23.88	23.63	23.85	23.95	23.83	23.94	23.98	23.51	23.58	0.5
6	HSUPA	Subtest 1	22.33	22.31	22.28	22.26	22.26	22.16	22.18	22.23	22.14	2
6		Subtest 2	22.36	22.27	22.27	22.16	22.17	22.23	22.17	22.22	22.13	2
6		Subtest 3	23.43	23.35	23.31	23.26	23.19	23.16	23.28	23.27	23.15	1
6		Subtest 4	21.88	21.83	21.82	21.77	21.69	21.65	21.74	21.73	21.66	2.5
6		Subtest 5	23.39	23.31	23.30	23.23	23.26	23.12	23.25	23.23	23.25	1

Table 9-5
Reduced Conducted Power

3GPP Release Version	Mode	3GPP 34.121 Subtest	AWS Band [dBm]			PCS Band [dBm]			MPR [dB]
			1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	22.48	22.51	22.47	22.41	22.39	22.46	-
99		12.2 kbps AMR	22.48	22.50	22.48	22.41	22.50	22.44	-
6	HSDPA	Subtest 1	22.06	22.04	22.00	22.08	22.10	22.09	0
6		Subtest 2	22.10	22.03	21.99	22.11	22.05	22.06	0
6		Subtest 3	21.64	21.58	21.54	21.61	21.59	21.61	0.5
6		Subtest 4	21.57	21.54	21.50	21.57	21.54	21.62	0.5
6	HSUPA	Subtest 1	20.08	20.01	20.00	20.04	20.03	19.99	2
6		Subtest 2	20.05	20.01	19.99	20.03	20.07	20.04	2
6		Subtest 3	21.09	21.07	21.04	21.08	21.05	21.03	1
6		Subtest 4	19.60	19.57	19.51	19.58	19.54	19.53	2.5
6		Subtest 5	21.06	21.03	21.00	21.07	21.03	21.01	1

This device does not support DC-HSDPA

Figure 9-3
Power Measurement Setup

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9.4 LTE Conducted Powers

9.4.1 LTE Band 71

Table 9-6
LTE Band 71 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 71 20 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	**25.11**	0	0
	1	50	25.10		0
	1	99	24.93		0
	50	0	24.10	0-1	1
	50	25	**24.18**		1
	50	50	24.15		1
	100	0	24.12		1
16QAM	1	0	24.06	0-1	1
	1	50	24.06		1
	1	99	23.86		1
	50	0	23.11	0-2	2
	50	25	23.10		2
	50	50	23.08		2
	100	0	23.08		2
64QAM	1	0	23.27	0-2	2
	1	50	23.24		2
	1	99	23.10		2
	50	0	22.05	0-3	3
	50	25	22.13		3
	50	50	22.13		3
	100	0	22.08		3

Note: LTE Band 71 at 20 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-7
LTE Band 71 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 71 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 133297 (680.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	25.02	0	0
	1	36	25.11		0
	1	74	25.06		0
	36	0	24.09	0-1	1
	36	18	24.13		1
	36	37	24.15		1
	75	0	24.14		1
16QAM	1	0	24.19	0-1	1
	1	36	24.03		1
	1	74	23.79		1
	36	0	23.16	0-2	2
	36	18	23.15		2
	36	37	23.02		2
	75	0	23.08		2
64QAM	1	0	23.29	0-2	2
	1	36	23.24		2
	1	74	23.21		2
	36	0	22.07	0-3	3
	36	18	22.27		3
	36	37	22.04		3
	75	0	22.14		3

Note: LTE Band 71 at 15 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-8
LTE Band 71 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 71 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 133172 (668.0 MHz)	Mid Channel 133297 (680.5 MHz)	High Channel 133422 (693.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.95	24.97	24.98	0	0
	1	25	24.96	25.09	25.27		0
	1	49	25.10	25.11	25.14		0
	25	0	24.04	24.09	24.09	0-1	1
	25	12	24.27	24.10	24.24		1
	25	25	24.26	24.20	24.05		1
	50	0	24.21	24.03	24.05		1
16QAM	1	0	24.04	24.27	24.19	0-1	1
	1	25	24.17	24.11	24.20		1
	1	49	23.87	23.76	23.72		1
	25	0	23.19	23.16	23.20	0-2	2
	25	12	23.16	23.14	23.26		2
	25	25	23.06	23.06	23.03		2
	50	0	23.09	22.99	23.14		2
64QAM	1	0	23.29	23.26	23.21	0-2	2
	1	25	23.35	23.15	23.28		2
	1	49	23.21	23.36	23.35		2
	25	0	22.11	22.13	22.12	0-3	3
	25	12	22.22	22.13	22.27		3
	25	25	21.98	22.17	21.95		3
	50	0	22.21	22.10	22.18		3

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Table 9-9
LTE Band 71 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 71 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 133147 (665.5 MHz)	Mid Channel 133297 (680.5 MHz)	High Channel 133447 (695.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.93	24.93	25.03	0	0
	1	12	25.22	25.05	25.10		0
	1	24	24.91	25.23	24.90		0
	12	0	23.96	24.17	24.19	0-1	1
	12	6	24.21	23.95	24.03		1
	12	13	24.15	24.12	24.04		1
	25	0	24.21	24.10	24.19		1
16QAM	1	0	24.14	24.09	24.13	0-1	1
	1	12	24.05	23.95	24.01		1
	1	24	23.89	23.85	23.81		1
	12	0	23.21	23.02	23.07	0-2	2
	12	6	23.10	23.05	23.15		2
	12	13	23.05	23.03	23.17		2
	25	0	23.20	23.03	23.05		2
64QAM	1	0	23.27	23.24	23.39	0-2	2
	1	12	23.20	23.27	23.40		2
	1	24	23.17	23.26	23.13		2
	12	0	22.09	22.05	22.08	0-3	3
	12	6	22.29	22.23	22.34		3
	12	13	22.04	22.09	21.96		3
	25	0	22.15	22.17	22.10		3

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9.4.2 LTE Band 12

Table 9-10
LTE Band 12 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 12 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23095 (707.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	25.17	0	0
	1	25	**25.22**		0
	1	49	25.13		0
	25	0	**24.30**	0-1	1
	25	12	24.18		1
	25	25	24.21		1
	50	0	24.23		1
16QAM	1	0	24.05	0-1	1
	1	25	24.21		1
	1	49	24.02		1
	25	0	23.35	0-2	2
	25	12	23.23		2
	25	25	23.44		2
	50	0	23.22		2
64QAM	1	0	23.30	0-2	2
	1	25	23.35		2
	1	49	23.44		2
	25	0	22.36	0-3	3
	25	12	22.24		3
	25	25	22.41		3
	50	0	22.34		3

Note: LTE Band 12 at 10 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-11
LTE Band 12 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 12 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 23035 (701.5 MHz)	Mid Channel 23095 (707.5 MHz)	High Channel 23155 (713.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.32	25.08	25.18	0	0
	1	12	25.31	25.29	25.04		0
	1	24	25.19	25.17	25.32		0
	12	0	24.26	24.13	24.38	0-1	1
	12	6	24.07	24.19	24.29		1
	12	13	24.13	24.19	24.19		1
	25	0	24.35	24.20	24.23		1
16QAM	1	0	24.10	24.00	24.19	0-1	1
	1	12	24.29	24.16	24.22		1
	1	24	24.01	24.13	23.99		1
	12	0	23.29	23.21	23.37	0-2	2
	12	6	23.31	23.36	23.12		2
	12	13	23.29	23.16	23.45		2
	25	0	23.28	23.25	23.31		2
64QAM	1	0	23.42	23.41	23.32	0-2	2
	1	12	23.49	23.41	23.23		2
	1	24	23.41	23.16	23.16		2
	12	0	22.13	22.42	22.40	0-3	3
	12	6	22.19	22.24	22.38		3
	12	13	22.32	22.33	22.26		3
	25	0	22.22	22.32	22.21		3

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Table 9-12
LTE Band 12 Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 12 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 23025 (700.5 MHz)	Mid Channel 23095 (707.5 MHz)	High Channel 23165 (714.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.31	25.19	25.30	0	0
	1	7	25.27	25.24	25.08		0
	1	14	25.02	25.15	25.15		0
	8	0	24.24	24.48	24.39	0-1	1
	8	4	24.11	24.20	24.16		1
	8	7	24.25	24.25	24.31		1
	15	0	24.11	24.24	24.12		1
16QAM	1	0	24.10	24.01	24.01	0-1	1
	1	7	24.21	24.15	24.22		1
	1	14	23.93	23.93	24.06		1
	8	0	23.36	23.46	23.47	0-2	2
	8	4	23.22	23.24	23.20		2
	8	7	23.16	23.39	23.36		2
	15	0	23.11	23.28	23.12		2
64QAM	1	0	23.19	23.32	23.20	0-2	2
	1	7	23.46	23.40	23.20		2
	1	14	23.39	23.38	23.43		2
	8	0	22.19	22.19	22.41	0-3	3
	8	4	22.25	22.27	22.25		3
	8	7	22.40	22.36	22.45		3
	15	0	22.40	22.23	22.27		3

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Table 9-13
LTE Band 12 Maximum Conducted Powers - 1.4 MHz Bandwidth

LTE Band 12 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 23017 (699.7 MHz)	Mid Channel 23095 (707.5 MHz)	High Channel 23173 (715.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.16	25.11	25.04	0	0
	1	2	25.10	25.17	25.20		0
	1	5	25.20	25.18	25.15		0
	3	0	25.39	25.41	25.38		0
	3	2	25.00	25.22	25.10		0
	3	3	25.07	25.29	25.22		0
	6	0	24.38	24.12	24.22	0-1	1
16QAM	1	0	24.24	24.13	24.21	0-1	1
	1	2	24.19	24.28	24.20		1
	1	5	23.93	23.97	23.94		1
	3	0	24.38	24.48	24.34		1
	3	2	24.22	24.13	24.36		1
	3	3	24.48	24.38	24.47		1
	6	0	23.19	23.20	23.24	0-2	2
64QAM	1	0	23.25	23.30	23.24	0-2	2
	1	2	23.44	23.24	23.15		2
	1	5	23.45	23.44	23.43		2
	3	0	23.40	23.20	23.34		2
	3	2	23.21	23.24	23.37		2
	3	3	23.46	23.41	23.22		2
	6	0	22.42	22.47	22.30	0-3	3

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9.4.3 LTE Band 13

Table 9-14
LTE Band 13 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 13 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	24.67	0	0
	1	25	**25.05**		0
	1	49	25.02		0
	25	0	24.09	0-1	1
	25	12	**24.14**		1
	25	25	24.02		1
	50	0	24.13		1
16QAM	1	0	24.08	0-1	1
	1	25	24.01		1
	1	49	23.94		1
	25	0	23.14	0-2	2
	25	12	23.16		2
	25	25	23.05		2
	50	0	23.15		2
64QAM	1	0	23.36	0-2	2
	1	25	23.27		2
	1	49	23.17		2
	25	0	22.09	0-3	3
	25	12	22.14		3
	25	25	22.04		3
	50	0	22.14		3

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Table 9-15
LTE Band 13 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 13 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	25.00	0	0
	1	12	25.09		0
	1	24	25.10		0
	12	0	24.21	0-1	1
	12	6	24.12		1
	12	13	24.03		1
	25	0	24.11		1
16QAM	1	0	24.16	0-1	1
	1	12	24.00		1
	1	24	23.95		1
	12	0	23.14	0-2	2
	12	6	23.28		2
	12	13	23.09		2
	25	0	23.28		2
64QAM	1	0	23.50	0-2	2
	1	12	23.36		2
	1	24	23.16		2
	12	0	22.05	0-3	3
	12	6	22.06		3
	12	13	22.02		3
	25	0	22.11		3

Note: LTE Band 13 at 5 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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9.4.4 LTE Band 26

Table 9-16
LTE Band 26 (Cell) Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 26 (Cell) 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 26865 (831.5 MHz) Conducted Power [dBm]	MPR Allowed per 3GPP [dB]	MPR [dB]
QPSK	1	0	25.05	0	0
	1	36	**25.15**		0
	1	74	24.99		0
	36	0	24.22	0-1	1
	36	18	24.20		1
	36	37	**24.28**		1
	75	0	24.22		1
16QAM	1	0	24.06	0-1	1
	1	36	24.13		1
	1	74	24.02		1
	36	0	23.19	0-2	2
	36	18	23.15		2
	36	37	23.17		2
	75	0	23.22		2
64QAM	1	0	23.32	0-2	2
	1	36	23.36		2
	1	74	23.21		2
	36	0	22.20	0-3	3
	36	18	22.21		3
	36	37	22.20		3
	75	0	22.19		3

Note: LTE Band 26 at 15 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-17
LTE Band 26 (Cell) Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 26 (Cell) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26740 (819.0 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 26990 (844.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.41	25.27	25.44	0	0
	1	25	25.37	25.33	25.47		0
	1	49	25.33	25.27	25.44		0
	25	0	24.45	24.40	24.46	0-1	1
	25	12	24.42	24.39	24.41		1
	25	25	24.36	24.42	24.36		1
	50	0	24.45	24.42	24.37		1
16QAM	1	0	24.41	24.49	24.16	0-1	1
	1	25	24.36	24.46	24.19		1
	1	49	24.35	24.38	24.19		1
	25	0	23.49	23.41	23.45	0-2	2
	25	12	23.48	23.40	23.49		2
	25	25	23.45	23.43	23.43		2
	50	0	23.49	23.42	23.44		2
64QAM	1	0	23.48	23.11	23.16	0-2	2
	1	25	23.49	23.13	23.24		2
	1	49	23.50	23.07	23.22		2
	25	0	22.25	22.27	22.33	0-3	3
	25	12	22.23	22.25	22.25		3
	25	25	22.18	22.26	22.17		3
	50	0	22.27	22.19	22.19		3

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Table 9-18
LTE Band 26 (Cell) Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 26 (Cell) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26715 (816.5 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27015 (846.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.24	25.37	25.20	0	0
	1	12	25.28	25.45	25.18		0
	1	24	25.21	25.41	25.20		0
	12	0	24.37	24.40	24.46	0-1	1
	12	6	24.39	24.39	24.37		1
	12	13	24.37	24.39	24.32		1
	25	0	24.43	24.42	24.40		1
16QAM	1	0	24.45	24.48	24.42	0-1	1
	1	12	24.43	24.39	24.39		1
	1	24	24.45	24.35	24.32		1
	12	0	23.37	23.45	23.42	0-2	2
	12	6	23.41	23.45	23.35		2
	12	13	23.39	23.47	23.30		2
	25	0	23.41	23.42	23.41		2
64QAM	1	0	23.29	23.32	23.50	0-2	2
	1	12	23.28	23.42	23.48		2
	1	24	23.24	23.32	23.43		2
	12	0	22.16	22.14	22.30	0-3	3
	12	6	22.20	22.16	22.23		3
	12	13	22.19	22.18	22.17		3
	25	0	22.19	22.20	22.26		3

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Table 9-19
LTE Band 26 (Cell) Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 26 (Cell) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26705 (815.5 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27025 (847.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.26	25.48	25.30	0	0
	1	7	25.35	25.49	25.33		0
	1	14	25.35	25.49	25.35		0
	8	0	24.37	24.37	24.42	0-1	1
	8	4	24.37	24.37	24.39		1
	8	7	24.35	24.38	24.37		1
	15	0	24.41	24.42	24.41		1
16QAM	1	0	24.45	24.32	24.49	0-1	1
	1	7	24.47	24.33	24.50		1
	1	14	24.45	24.30	24.48		1
	8	0	23.49	23.41	23.42	0-2	2
	8	4	23.48	23.39	23.46		2
	8	7	23.49	23.41	23.46		2
	15	0	23.44	23.28	23.45		2
64QAM	1	0	23.47	23.13	23.11	0-2	2
	1	7	23.49	23.13	23.12		2
	1	14	23.48	23.12	23.11		2
	8	0	22.20	22.23	22.21	0-3	3
	8	4	22.23	22.18	22.17		3
	8	7	22.22	22.25	22.26		3
	15	0	22.18	22.22	22.23		3

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Table 9-20
LTE Band 26 (Cell) Maximum Conducted Powers - 1.4 MHz Bandwidth

LTE Band 26 (Cell) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26697 (814.7 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27033 (848.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.10	25.31	25.46	0	0
	1	2	25.14	25.29	25.47		0
	1	5	25.11	25.28	25.49		0
	3	0	25.28	25.29	25.31		0
	3	2	25.26	25.30	25.33		0
	3	3	25.29	25.30	25.34		0
	6	0	24.41	24.40	24.47	0-1	1
16QAM	1	0	24.45	24.45	24.10	0-1	1
	1	2	24.48	24.48	24.11		1
	1	5	24.49	24.49	24.16		1
	3	0	24.34	24.06	24.07		1
	3	2	24.33	24.03	24.09		1
	3	3	24.37	24.04	24.12		1
	6	0	23.41	23.38	23.45	0-2	2
64QAM	1	0	23.12	23.13	23.27	0-2	2
	1	2	23.19	23.17	23.23		2
	1	5	23.15	23.07	23.34		2
	3	0	23.39	23.23	23.23		2
	3	2	23.38	23.24	23.28		2
	3	3	23.41	23.24	23.29		2
	6	0	22.09	22.42	22.38	0-3	3

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9.4.5 LTE Band 66

Table 9-21
LTE Band 66 (AWS) Antenna 2 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.95	25.18	25.15	0	0
	1	50	25.03	**25.20**	25.18		0
	1	99	24.90	25.17	25.10		0
	50	0	24.07	24.17	24.19	0-1	1
	50	25	24.19	**24.20**	24.19		1
	50	50	24.14	24.13	24.18		1
	100	0	24.12	24.16	24.19		1
16QAM	1	0	23.94	24.11	24.19	0-1	1
	1	50	23.93	24.19	24.20		1
	1	99	23.84	24.08	24.20		1
	50	0	23.05	23.16	23.18	0-2	2
	50	25	23.16	23.20	23.20		2
	50	50	23.13	23.12	23.08		2
	100	0	23.11	23.14	23.17		2
64QAM	1	0	23.19	23.16	23.10	0-2	2
	1	50	23.20	23.20	23.17		2
	1	99	23.18	23.13	23.06		2
	50	0	22.04	22.19	22.20	0-3	3
	50	25	22.15	22.20	22.20		3
	50	50	22.14	22.18	22.14		3
	100	0	22.08	22.19	22.18		3

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Table 9-22
LTE Band 66 (AWS) Antenna 2 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 66 (AWS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.02	25.19	25.16	0	0
	1	36	25.08	25.20	25.20		0
	1	74	25.00	25.20	25.14		0
	36	0	24.09	24.18	24.10	0-1	1
	36	18	24.17	24.13	24.09		1
	36	37	24.13	24.18	24.08		1
	75	0	24.14	24.17	24.09		1
16QAM	1	0	23.87	24.19	24.02	0-1	1
	1	36	23.85	24.20	24.10		1
	1	74	23.79	24.18	24.03		1
	36	0	23.10	23.20	23.10	0-2	2
	36	18	23.15	23.17	23.09		2
	36	37	23.12	23.15	23.08		2
	75	0	23.17	23.16	23.06		2
64QAM	1	0	23.01	23.13	23.18	0-2	2
	1	36	23.03	23.17	23.20		2
	1	74	22.94	23.08	23.13		2
	36	0	22.18	22.20	22.10	0-3	3
	36	18	22.20	22.15	22.09		3
	36	37	22.19	22.15	22.10		3
	75	0	22.12	22.16	22.06		3

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Table 9-23
LTE Band 66 (AWS) Antenna 2 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.09	25.19	25.01	0	0
	1	25	25.11	25.20	25.03		0
	1	49	25.05	25.19	24.99		0
	25	0	24.11	24.19	24.05	0-1	1
	25	12	24.14	24.17	24.04		1
	25	25	24.15	24.18	24.03		1
	50	0	24.16	24.20	24.04		1
16QAM	1	0	23.86	24.16	24.03	0-1	1
	1	25	23.85	24.16	24.04		1
	1	49	23.80	24.12	24.02		1
	25	0	23.11	23.20	23.19	0-2	2
	25	12	23.17	23.19	23.19		2
	25	25	23.20	23.20	23.16		2
	50	0	23.12	23.18	23.05		2
64QAM	1	0	23.01	23.15	23.19	0-2	2
	1	25	23.00	23.16	23.17		2
	1	49	22.99	23.10	23.19		2
	25	0	22.13	22.20	22.19	0-3	3
	25	12	22.19	22.19	22.11		3
	25	25	22.20	22.20	22.15		3
	50	0	22.18	22.18	22.09		3

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Table 9-24
LTE Band 66 (AWS) Antenna 2 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 66 (AWS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131997 (1712.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132647 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.20	25.11	25.13	0	0
	1	12	25.19	25.14	25.15		0
	1	24	25.20	25.08	25.15		0
	12	0	24.16	24.19	24.14	0-1	1
	12	6	24.17	24.17	24.12		1
	12	13	24.18	24.11	24.15		1
	25	0	24.15	24.16	24.14		1
16QAM	1	0	24.17	24.11	23.91	0-1	1
	1	12	24.19	24.12	23.95		1
	1	24	24.18	24.10	23.94		1
	12	0	23.15	23.19	23.14	0-2	2
	12	6	23.16	23.17	23.12		2
	12	13	23.18	23.10	23.12		2
	25	0	23.16	23.20	23.15		2
64QAM	1	0	23.20	23.19	23.14	0-2	2
	1	12	23.19	23.20	23.16		2
	1	24	23.20	23.19	23.18		2
	12	0	22.06	22.20	22.14	0-3	3
	12	6	22.08	22.20	22.15		3
	12	13	22.14	22.16	22.13		3
	25	0	22.13	22.14	22.14		3

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Table 9-25
LTE Band 66 (AWS) Antenna 2 Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 66 (AWS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131987 (1711.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132657 (1778.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.19	25.13	25.15	0	0
	1	7	25.15	25.11	25.15		0
	1	14	25.18	25.11	25.13		0
	8	0	24.02	24.13	24.15	0-1	1
	8	4	24.02	24.09	24.11		1
	8	7	24.07	24.04	24.11		1
	15	0	24.03	24.06	24.15		1
16QAM	1	0	23.86	24.14	23.79	0-1	1
	1	7	23.82	24.13	23.80		1
	1	14	23.87	24.12	23.76		1
	8	0	23.05	23.20	23.14	0-2	2
	8	4	23.06	23.18	23.11		2
	8	7	23.12	23.12	23.19		2
	15	0	23.05	23.19	23.15		2
64QAM	1	0	23.20	23.16	23.12	0-2	2
	1	7	23.20	23.16	23.15		2
	1	14	23.20	23.14	23.17		2
	8	0	21.99	22.09	22.20	0-3	3
	8	4	22.02	22.04	22.15		3
	8	7	22.04	21.99	22.16		3
	15	0	22.00	22.07	22.17		3

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Table 9-26
LTE Band 66 (AWS) Antenna 2 Maximum Conducted Powers - 1.4 MHz Bandwidth

LTE Band 66 (AWS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131979 (1710.7 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132665 (1779.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	25.16	25.01	25.10	0	0
	1	2	25.13	24.97	25.07		0
	1	5	25.16	25.01	25.11		0
	3	0	25.01	25.09	25.11		0
	3	2	25.03	25.07	25.14		0
	3	3	25.03	25.05	25.14		0
	6	0	24.07	24.09	24.10	0-1	1
16QAM	1	0	23.58	24.17	23.55	0-1	1
	1	2	23.56	24.15	23.52		1
	1	5	23.59	24.15	23.58		1
	3	0	23.90	24.09	23.91		1
	3	2	23.93	24.05	23.91		1
	3	3	23.93	24.05	23.91		1
	6	0	23.12	22.98	23.20	0-2	2
64QAM	1	0	23.14	22.95	23.12	0-2	2
	1	2	23.20	22.98	23.19		2
	1	5	23.11	22.92	23.16		2
	3	0	23.14	23.14	23.13		2
	3	2	23.15	23.10	23.15		2
	3	3	23.14	23.11	23.14		2
	6	0	22.00	22.18	22.11	0-3	3

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Table 9-27
LTE Band 66 (AWS) Antenna 2 Reduced Conducted Powers – 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.80	22.84	22.88	0	0
	1	50	22.85	22.92	**22.96**		0
	1	99	22.83	22.80	22.88		0
	50	0	22.77	22.90	23.00	0-1	0
	50	25	22.85	23.02	**23.03**		0
	50	50	22.88	22.94	22.97		0
	100	0	22.83	22.90	22.95		0
16QAM	1	0	22.95	22.98	23.15	0-1	0
	1	50	23.00	23.14	23.18		0
	1	99	22.96	23.02	23.11		0
	50	0	22.80	22.97	23.03	0-2	0
	50	25	22.94	23.04	23.00		0
	50	50	22.90	23.02	22.93		0
	100	0	22.85	22.93	23.02		0
64QAM	1	0	23.13	23.11	22.78	0-2	0
	1	50	23.16	23.15	22.77		0
	1	99	23.12	23.16	22.75		0
	50	0	21.85	22.06	21.98	0-3	1
	50	25	21.99	22.11	22.02		1
	50	50	21.90	22.05	21.97		1
	100	0	21.83	21.92	22.04		1

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Table 9-28
LTE Band 66 (AWS) Antenna 2 Reduced Conducted Powers - 15 MHz Bandwidth

LTE Band 66 (AWS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.90	22.72	22.75	0	0
	1	36	22.78	22.82	22.87		0
	1	74	22.73	22.97	22.93		0
	36	0	22.65	22.72	22.83	0-1	0
	36	18	22.77	22.89	22.78		0
	36	37	22.96	22.86	22.86		0
	75	0	22.94	22.91	22.86		0
16QAM	1	0	23.05	22.90	22.87	0-1	0
	1	36	22.99	22.89	22.87		0
	1	74	22.80	22.87	22.92		0
	36	0	22.81	22.78	22.76	0-2	0
	36	18	22.81	23.00	22.91		0
	36	37	22.86	22.90	22.90		0
	75	0	22.95	22.74	22.85		0
64QAM	1	0	23.06	23.00	23.12	0-2	0
	1	36	23.02	23.08	23.13		0
	1	74	23.07	23.10	23.13		0
	36	0	22.01	21.73	21.86	0-3	1
	36	18	21.80	21.89	21.80		1
	36	37	22.04	21.82	22.04		1
	75	0	21.76	21.70	21.80		1

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Table 9-29
LTE Band 66 (AWS) Antenna 2 Reduced Conducted Powers – 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.80	22.73	22.91	0	0
	1	25	22.81	22.87	22.87		0
	1	49	22.91	22.81	22.88		0
	25	0	22.62	22.88	22.70	0-1	0
	25	12	22.93	22.78	22.88		0
	25	25	22.80	22.98	22.76		0
	50	0	22.91	22.72	22.68		0
16QAM	1	0	22.97	22.87	23.10	0-1	0
	1	25	23.00	23.09	22.89		0
	1	49	22.91	22.78	22.91		0
	25	0	22.78	22.92	22.75	0-2	0
	25	12	23.01	22.91	22.91		0
	25	25	22.92	22.92	22.85		0
	50	0	22.79	22.75	22.72		0
64QAM	1	0	23.15	23.05	23.12	0-2	0
	1	25	23.19	23.06	23.18		0
	1	49	23.13	23.06	23.03		0
	25	0	21.83	21.72	21.78	0-3	1
	25	12	21.82	22.17	22.04		1
	25	25	21.78	21.78	22.02		1
	50	0	21.75	21.69	21.93		1

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Table 9-30
LTE Band 66 (AWS) Antenna 2 Reduced Conducted Powers – 5 MHz Bandwidth

LTE Band 66 (AWS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131997 (1712.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132647 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.68	22.82	22.69	0	0
	1	12	23.00	22.83	22.70		0
	1	24	22.92	22.93	22.92		0
	12	0	22.44	22.52	22.55	0-1	0
	12	6	22.98	23.10	22.90		0
	12	13	22.62	22.90	22.77		0
	25	0	22.96	22.91	22.83		0
16QAM	1	0	22.90	22.86	22.99	0-1	0
	1	12	22.99	23.07	23.04		0
	1	24	22.81	22.87	22.98		0
	12	0	22.83	22.65	22.64	0-2	0
	12	6	23.07	23.01	22.98		0
	12	13	22.83	22.88	22.92		0
	25	0	22.75	22.90	22.83		0
64QAM	1	0	23.17	23.18	23.07	0-2	0
	1	12	23.10	23.10	23.06		0
	1	24	23.12	23.07	23.12		0
	12	0	21.81	21.90	21.67	0-3	1
	12	6	21.80	21.70	21.82		1
	12	13	21.80	21.73	21.80		1
	25	0	21.75	21.67	21.84		1

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Table 9-31
LTE Band 66 (AWS) Antenna 2 Reduced Conducted Powers – 3 MHz Bandwidth

LTE Band 66 (AWS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131987 (1711.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132657 (1778.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.79	22.69	22.70	0	0
	1	7	22.66	23.00	22.77		0
	1	14	22.75	22.75	22.86		0
	8	0	22.56	22.73	22.60	0-1	0
	8	4	22.98	22.87	22.94		0
	8	7	22.70	22.78	22.79		0
	15	0	22.99	23.03	23.04		0
16QAM	1	0	22.80	22.95	22.91	0-1	0
	1	7	23.01	22.97	22.88		0
	1	14	22.76	22.76	22.89		0
	8	0	22.80	22.77	22.91	0-2	0
	8	4	22.89	22.88	22.96		0
	8	7	22.91	22.88	22.91		0
	15	0	22.81	22.97	22.70		0
64QAM	1	0	23.13	22.99	23.07	0-2	0
	1	7	23.06	23.06	23.18		0
	1	14	23.12	22.98	23.06		0
	8	0	21.92	21.73	21.81	0-3	1
	8	4	21.80	21.63	21.96		1
	8	7	21.84	21.74	21.77		1
	15	0	21.66	21.73	21.76		1

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Table 9-32
LTE Band 66 (AWS) Antenna 2 Reduced Conducted Powers – 1.4 MHz Bandwidth

LTE Band 66 (AWS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131979 (1710.7 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132665 (1779.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.81	22.82	22.65	0	0
	1	2	22.68	22.66	22.66		0
	1	5	22.81	22.72	22.67		0
	3	0	22.57	22.57	22.64		0
	3	2	23.04	22.96	22.97		0
	3	3	22.65	22.74	22.72		0
	6	0	22.99	22.86	23.08	0-1	0
16QAM	1	0	22.92	22.68	22.82	0-1	0
	1	2	23.02	23.01	22.92		0
	1	5	22.75	22.83	22.77		0
	3	0	22.82	22.78	22.80		0
	3	2	22.91	22.89	22.88		0
	3	3	22.82	22.90	22.88		0
	6	0	22.95	22.73	22.83	0-2	0
64QAM	1	0	23.12	23.10	23.10	0-2	0
	1	2	23.13	23.08	23.04		0
	1	5	22.98	23.09	23.04		0
	3	0	22.94	22.89	22.90		0
	3	2	22.77	22.69	22.82		0
	3	3	22.89	22.88	22.80		0
	6	0	21.66	21.74	21.69	0-3	1

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Table 9-33
LTE Band 66 (AWS) Antenna 3 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.31	23.33	23.35	0	0
	1	50	23.40	23.33	23.33		0
	1	99	**23.47**	23.29	23.37		0
	50	0	22.27	**22.37**	22.36	0-1	1
	50	25	22.32	22.33	22.29		1
	50	50	22.28	22.23	22.20		1
	100	0	22.29	22.28	22.30		1
16QAM	1	0	22.44	22.45	22.45	0-1	1
	1	50	22.40	22.46	22.47		1
	1	99	22.45	22.49	22.48		1
	50	0	21.28	21.36	21.35	0-2	2
	50	25	21.33	21.35	21.34		2
	50	50	21.22	21.19	21.18		2
	100	0	21.25	21.33	21.25		2
64QAM	1	0	21.43	21.44	21.41	0-2	2
	1	50	21.46	21.49	21.47		2
	1	99	21.33	21.44	21.50		2
	50	0	20.26	20.37	20.36	0-3	3
	50	25	20.34	20.33	20.34		3
	50	50	20.23	20.20	20.20		3
	100	0	20.20	20.30	20.24		3

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Table 9-34
LTE Band 66 (AWS) Antenna 3 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 66 (AWS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.36	23.29	23.31	0	0
	1	36	23.42	23.33	23.37		0
	1	74	23.31	23.32	23.26		0
	36	0	22.36	22.31	22.31	0-1	1
	36	18	22.34	22.26	22.28		1
	36	37	22.31	22.24	22.30		1
	75	0	22.39	22.26	22.31		1
16QAM	1	0	22.14	22.13	22.04	0-1	1
	1	36	22.22	22.15	22.17		1
	1	74	22.10	22.08	22.10		1
	36	0	21.30	21.34	21.30	0-2	2
	36	18	21.32	21.28	21.28		2
	36	37	21.33	21.29	21.31		2
	75	0	21.36	21.30	21.29		2
64QAM	1	0	21.48	21.47	21.42	0-2	2
	1	36	21.46	21.46	21.46		2
	1	74	21.38	21.42	21.40		2
	36	0	20.32	20.36	20.30	0-3	3
	36	18	20.31	20.27	20.27		3
	36	37	20.31	20.27	20.31		3
	75	0	20.36	20.28	20.28		3

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Table 9-35
LTE Band 66 (AWS) Antenna 3 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.41	23.38	23.25	0	0
	1	25	23.46	23.49	23.45		0
	1	49	23.38	23.36	23.32		0
	25	0	22.36	22.36	22.40	0-1	1
	25	12	22.36	22.35	22.36		1
	25	25	22.38	22.34	22.36		1
	50	0	22.44	22.36	22.36		1
16QAM	1	0	22.26	22.18	22.13	0-1	1
	1	25	22.20	22.12	22.24		1
	1	49	22.21	22.04	22.16		1
	25	0	21.36	21.34	21.36	0-2	2
	25	12	21.38	21.34	21.32		2
	25	25	21.41	21.29	21.34		2
	50	0	21.39	21.33	21.34		2
64QAM	1	0	21.50	21.48	21.43	0-2	2
	1	25	21.45	21.49	21.42		2
	1	49	21.47	21.47	21.48		2
	25	0	20.38	20.35	20.36	0-3	3
	25	12	20.40	20.32	20.33		3
	25	25	20.42	20.32	20.31		3
	50	0	20.37	20.31	20.31		3

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Table 9-36
LTE Band 66 (AWS) Antenna 3 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 66 (AWS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131997 (1712.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132647 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.48	23.37	23.40	0	0
	1	12	23.46	23.36	23.46		0
	1	24	23.45	23.41	23.28		0
	12	0	22.46	22.39	22.34	0-1	1
	12	6	22.46	22.33	22.41		1
	12	13	22.41	22.37	22.33		1
	25	0	22.46	22.32	22.32		1
16QAM	1	0	22.27	22.18	22.15	0-1	1
	1	12	22.24	22.17	22.19		1
	1	24	22.12	22.14	22.16		1
	12	0	21.42	21.35	21.31	0-2	2
	12	6	21.41	21.29	21.34		2
	12	13	21.37	21.28	21.27		2
	25	0	21.45	21.29	21.29		2
64QAM	1	0	21.50	21.43	21.45	0-2	2
	1	12	21.49	21.48	21.50		2
	1	24	21.50	21.49	21.46		2
	12	0	20.38	20.26	20.28	0-3	3
	12	6	20.39	20.27	20.30		3
	12	13	20.35	20.24	20.27		3
	25	0	20.41	20.29	20.34		3

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Table 9-37
LTE Band 66 (AWS) Antenna 3 Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 66 (AWS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131987 (1711.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132657 (1778.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.42	23.38	23.28	0	0
	1	7	23.43	23.31	23.33		0
	1	14	23.34	23.33	23.29		0
	8	0	22.38	22.30	22.32	0-1	1
	8	4	22.42	22.28	22.27		1
	8	7	22.41	22.29	22.31		1
	15	0	22.37	22.26	22.29		1
16QAM	1	0	22.24	22.14	22.14	0-1	1
	1	7	22.18	22.10	22.17		1
	1	14	22.19	22.14	22.08		1
	8	0	21.39	21.30	21.30	0-2	2
	8	4	21.41	21.24	21.29		2
	8	7	21.37	21.26	21.26		2
	15	0	21.36	21.25	21.27		2
64QAM	1	0	21.49	21.43	21.50	0-2	2
	1	7	21.47	21.45	21.47		2
	1	14	21.48	21.38	21.42		2
	8	0	20.38	20.29	20.30	0-3	3
	8	4	20.36	20.26	20.28		3
	8	7	20.40	20.23	20.26		3
	15	0	20.38	20.21	20.20		3

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Table 9-38
LTE Band 66 (AWS) Antenna 3 Maximum Conducted Powers - 1.4 MHz Bandwidth

LTE Band 66 (AWS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131979 (1710.7 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132665 (1779.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.42	23.38	23.27	0	0
	1	2	23.46	23.33	23.28		0
	1	5	23.48	23.35	23.34		0
	3	0	23.45	23.34	23.31		0
	3	2	23.43	23.28	23.34		0
	3	3	23.45	23.31	23.28		0
	6	0	22.43	22.30	22.31	0-1	1
16QAM	1	0	22.26	22.06	22.06	0-1	1
	1	2	22.25	22.13	22.15		1
	1	5	22.19	22.04	22.07		1
	3	0	22.01	21.95	21.94		1
	3	2	22.05	21.92	21.93		1
	3	3	22.04	21.90	21.89		1
	6	0	21.43	21.30	21.29	0-2	2
64QAM	1	0	21.49	21.43	21.49	0-2	2
	1	2	21.50	21.48	21.42		2
	1	5	21.48	21.47	21.47		2
	3	0	21.34	21.23	21.26		2
	3	2	21.36	21.26	21.21		2
	3	3	21.34	21.23	21.19		2
	6	0	20.36	20.23	20.22	0-3	3

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Table 9-39
LTE Band 66 (AWS) Antenna 3 Reduced Conducted Powers - 20 MHz Bandwidth

LTE Band 66 (AWS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.98	**23.09**	23.01	0	0
	1	50	22.97	23.01	23.07		0
	1	99	23.00	23.02	22.98		0
	50	0	22.24	22.34	**22.39**	0-1	0.7
	50	25	22.29	22.31	22.30		0.7
	50	50	22.25	22.22	22.19		0.7
	100	0	22.24	22.26	22.30		0.7
16QAM	1	0	22.37	22.46	22.48	0-1	0.7
	1	50	22.48	22.44	22.43		0.7
	1	99	22.46	22.43	22.46		0.7
	50	0	21.28	21.40	21.37	0-2	1.7
	50	25	21.32	21.37	21.35		1.7
	50	50	21.22	21.17	21.17		1.7
	100	0	21.26	21.30	21.29		1.7
64QAM	1	0	21.46	21.46	21.47	0-2	1.7
	1	50	21.47	21.47	21.43		1.7
	1	99	21.48	21.44	21.43		1.7
	50	0	20.29	20.36	20.34	0-3	2.7
	50	25	20.33	20.37	20.35		2.7
	50	50	20.24	20.18	20.20		2.7
	100	0	20.22	20.26	20.24		2.7

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Table 9-40
LTE Band 66 (AWS) Antenna 3 Reduced Conducted Powers - 15 MHz Bandwidth

LTE Band 66 (AWS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.95	22.95	23.00	0	0
	1	36	22.95	23.01	22.92		0
	1	74	23.04	22.89	22.92		0
	36	0	22.27	22.31	22.37	0-1	0.7
	36	18	22.30	22.34	22.26		0.7
	36	37	22.18	22.26	22.21		0.7
	75	0	22.30	22.31	22.31		0.7
16QAM	1	0	22.32	22.44	22.49	0-1	0.7
	1	36	22.38	22.39	22.30		0.7
	1	74	22.36	22.45	22.36		0.7
	36	0	21.23	21.34	21.33	0-2	1.7
	36	18	21.30	21.33	21.28		1.7
	36	37	21.29	21.24	21.29		1.7
	75	0	21.28	21.32	21.35		1.7
64QAM	1	0	21.47	21.50	21.48	0-2	1.7
	1	36	21.46	21.44	21.44		1.7
	1	74	21.49	21.43	21.39		1.7
	36	0	20.21	20.33	20.34	0-3	2.7
	36	18	20.28	20.32	20.31		2.7
	36	37	20.32	20.26	20.26		2.7
	75	0	20.26	20.29	20.33		2.7

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Table 9-41
LTE Band 66 (AWS) Antenna 3 Reduced Conducted Powers - 10 MHz Bandwidth

LTE Band 66 (AWS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.03	23.05	22.96	0	0
	1	25	23.01	23.07	23.07		0
	1	49	23.03	23.11	22.94		0
	25	0	22.28	22.40	22.31	0-1	0.7
	25	12	22.32	22.37	22.29		0.7
	25	25	22.31	22.35	22.34		0.7
	50	0	22.31	22.39	22.32		0.7
16QAM	1	0	22.13	22.15	22.11	0-1	0.7
	1	25	22.03	22.21	22.09		0.7
	1	49	22.06	22.28	22.04		0.7
	25	0	21.24	21.32	21.32	0-2	1.7
	25	12	21.30	21.38	21.25		1.7
	25	25	21.29	21.33	21.27		1.7
	50	0	21.28	21.33	21.31		1.7
64QAM	1	0	21.50	21.49	21.43	0-2	1.7
	1	25	21.41	21.46	21.50		1.7
	1	49	21.47	21.47	21.36		1.7
	25	0	20.30	20.37	20.34	0-3	2.7
	25	12	20.29	20.36	20.28		2.7
	25	25	20.33	20.33	20.29		2.7
	50	0	20.31	20.34	20.21		2.7

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Table 9-42
LTE Band 66 (AWS) Antenna 3 Reduced Conducted Powers - 5 MHz Bandwidth

LTE Band 66 (AWS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131997 (1712.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132647 (1777.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.11	23.02	23.07	0	0
	1	12	23.20	23.04	23.04		0
	1	24	23.08	23.10	22.97		0
	12	0	22.43	22.34	22.32	0-1	0.7
	12	6	22.48	22.34	22.31		0.7
	12	13	22.37	22.27	22.30		0.7
	25	0	22.45	22.30	22.32		0.7
16QAM	1	0	22.18	22.16	22.13	0-1	0.7
	1	12	22.24	22.19	22.14		0.7
	1	24	22.21	22.17	22.02		0.7
	12	0	21.40	21.38	21.32	0-2	1.7
	12	6	21.38	21.42	21.29		1.7
	12	13	21.32	21.33	21.24		1.7
	25	0	21.38	21.32	21.28		1.7
64QAM	1	0	21.48	21.47	21.46	0-2	1.7
	1	12	21.50	21.45	21.48		1.7
	1	24	21.41	21.44	21.42		1.7
	12	0	20.34	20.32	20.35	0-3	2.7
	12	6	20.38	20.28	20.29		2.7
	12	13	20.31	20.24	20.23		2.7
	25	0	20.41	20.29	20.31		2.7

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Table 9-43
LTE Band 66 (AWS) Antenna 3 Reduced Conducted Powers - 3 MHz Bandwidth

LTE Band 66 (AWS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131987 (1711.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132657 (1778.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.02	22.98	22.94	0	0
	1	7	23.04	22.92	23.01		0
	1	14	23.05	22.97	22.98		0
	8	0	22.32	22.21	22.28	0-1	0.7
	8	4	22.33	22.20	22.26		0.7
	8	7	22.31	22.17	22.25		0.7
	15	0	22.29	22.19	22.23		0.7
16QAM	1	0	22.06	22.02	22.09	0-1	0.7
	1	7	22.14	22.03	22.11		0.7
	1	14	22.02	22.08	22.09		0.7
	8	0	21.32	21.24	21.25	0-2	1.7
	8	4	21.37	21.18	21.24		1.7
	8	7	21.30	21.19	21.21		1.7
	15	0	21.31	21.17	21.23		1.7
64QAM	1	0	21.42	21.35	21.38	0-2	1.7
	1	7	21.48	21.38	21.48		1.7
	1	14	21.47	21.27	21.33		1.7
	8	0	20.39	20.23	20.27	0-3	2.7
	8	4	20.34	20.21	20.21		2.7
	8	7	20.33	20.20	20.26		2.7
	15	0	20.29	20.21	20.24		2.7

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Table 9-44
LTE Band 66 (AWS) Antenna 3 Reduced Conducted Powers - 1.4 MHz Bandwidth

LTE Band 66 (AWS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 131979 (1710.7 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132665 (1779.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	23.07	23.03	22.98	0	0
	1	2	23.08	23.09	23.05		0
	1	5	22.99	23.06	23.02		0
	3	0	23.01	23.09	22.99		0
	3	2	23.07	23.07	23.03		0
	3	3	23.08	23.06	22.95		0
	6	0	22.39	22.39	22.30	0-1	0.7
16QAM	1	0	22.23	22.22	22.08	0-1	0.7
	1	2	22.17	22.18	22.10		0.7
	1	5	22.15	22.16	22.12		0.7
	3	0	22.01	22.02	21.90		0.7
	3	2	22.00	22.03	21.98		0.7
	3	3	21.99	21.96	21.91		0.7
	6	0	21.36	21.39	21.29	0-2	1.7
64QAM	1	0	21.49	21.50	21.44	0-2	1.7
	1	2	21.49	21.41	21.47		1.7
	1	5	21.48	21.44	21.41		1.7
	3	0	21.34	21.29	21.23		1.7
	3	2	21.34	21.24	21.25		1.7
	3	3	21.29	21.24	21.21		1.7
	6	0	20.27	20.28	20.23	0-3	2.7

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9.4.6 LTE Band 2

Table 9-45
LTE Band 2 (PCS) Antenna 3 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 2 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18700 (1860.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19100 (1900.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.62	22.64	22.78	0	0
	1	50	22.63	22.66	22.82		0
	1	99	22.67	22.75	**22.94**		0
	50	0	21.59	21.73	21.81	0-1	1
	50	25	21.59	21.67	**22.00**		1
	50	50	21.55	21.58	21.62		1
	100	0	21.59	21.69	21.71		1
16QAM	1	0	21.70	21.84	21.99	0-1	1
	1	50	21.81	21.93	22.02		1
	1	99	21.76	21.89	22.06		1
	50	0	20.56	20.74	20.79	0-2	2
	50	25	20.57	20.71	20.82		2
	50	50	20.55	20.62	20.61		2
	100	0	20.56	20.69	20.72		2
64QAM	1	0	20.82	20.97	21.11	0-2	2
	1	50	20.93	21.03	21.19		2
	1	99	20.88	21.07	21.23		2
	50	0	19.56	19.71	19.81	0-3	3
	50	25	19.57	19.68	19.81		3
	50	50	19.52	19.59	19.61		3
	100	0	19.53	19.63	19.65		3

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Table 9-46
LTE Band 2 (PCS) Antenna 3 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 2 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18675 (1857.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19125 (1902.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.79	22.83	22.82	0	0
	1	36	22.82	22.80	22.89		0
	1	74	22.78	22.85	22.92		0
	36	0	21.77	21.77	21.82	0-1	1
	36	18	21.74	21.76	21.83		1
	36	37	21.77	21.72	21.80		1
	75	0	21.79	21.75	21.82		1
16QAM	1	0	21.56	21.56	21.61	0-1	1
	1	36	21.59	21.61	21.68		1
	1	74	21.58	21.64	21.76		1
	36	0	20.79	20.75	20.81	0-2	2
	36	18	20.77	20.76	20.80		2
	36	37	20.79	20.74	20.82		2
	75	0	20.77	20.73	20.81		2
64QAM	1	0	20.92	20.82	20.85	0-2	2
	1	36	20.85	20.85	20.87		2
	1	74	20.81	20.84	20.94		2
	36	0	19.81	19.76	19.79	0-3	3
	36	18	19.77	19.77	19.81		3
	36	37	19.78	19.75	19.80		3
	75	0	19.76	19.73	19.77		3

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Table 9-47
LTE Band 2 (PCS) Antenna 3 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 2 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18650 (1855.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19150 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.81	22.82	22.86	0	0
	1	25	22.79	22.83	22.95		0
	1	49	22.78	22.84	22.78		0
	25	0	21.81	21.80	21.84	0-1	1
	25	12	21.82	21.77	21.82		1
	25	25	21.73	21.70	21.79		1
	50	0	21.79	21.80	21.85		1
16QAM	1	0	21.56	21.57	21.56	0-1	1
	1	25	21.58	21.67	21.67		1
	1	49	21.60	21.58	21.77		1
	25	0	20.79	20.78	20.81	0-2	2
	25	12	20.76	20.74	20.83		2
	25	25	20.72	20.71	20.76		2
	50	0	20.77	20.76	20.83		2
64QAM	1	0	20.76	20.94	20.94	0-2	2
	1	25	20.87	20.83	20.95		2
	1	49	20.94	20.88	20.94		2
	25	0	19.81	19.79	19.83	0-3	3
	25	12	19.80	19.77	19.81		3
	25	25	19.74	19.72	19.80		3
	50	0	19.73	19.74	19.78		3

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Table 9-48
LTE Band 2 (PCS) Antenna 3 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 2 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18625 (1852.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19175 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.81	22.80	22.88	0	0
	1	12	22.78	22.82	22.91		0
	1	24	22.76	22.81	22.88		0
	12	0	21.78	21.77	21.86	0-1	1
	12	6	21.79	21.76	21.87		1
	12	13	21.75	21.77	21.83		1
	25	0	21.76	21.75	21.91		1
16QAM	1	0	21.49	21.59	21.68	0-1	1
	1	12	21.55	21.55	21.74		1
	1	24	21.53	21.63	21.70		1
	12	0	20.75	20.81	20.88	0-2	2
	12	6	20.72	20.77	20.82		2
	12	13	20.71	20.72	20.84		2
	25	0	20.75	20.77	20.83		2
64QAM	1	0	20.92	20.93	20.77	0-2	2
	1	12	20.85	20.85	20.89		2
	1	24	20.94	20.91	20.93		2
	12	0	19.72	19.75	19.85	0-3	3
	12	6	19.71	19.74	19.75		3
	12	13	19.64	19.72	19.78		3
	25	0	19.77	19.78	19.86		3

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Table 9-49
LTE Band 2 (PCS) Antenna 3 Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 2 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18615 (1851.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19185 (1908.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.73	22.78	22.91	0	0
	1	7	22.79	22.80	22.89		0
	1	14	22.74	22.77	22.80		0
	8	0	21.74	21.76	21.86	0-1	1
	8	4	21.76	21.74	21.86		1
	8	7	21.75	21.75	21.87		1
	15	0	21.73	21.72	21.87		1
16QAM	1	0	21.62	21.55	21.71	0-1	1
	1	7	21.58	21.64	21.72		1
	1	14	21.57	21.53	21.73		1
	8	0	20.76	20.76	20.84	0-2	2
	8	4	20.75	20.71	20.83		2
	8	7	20.72	20.73	20.81		2
	15	0	20.72	20.73	20.80		2
64QAM	1	0	20.77	20.78	20.89	0-2	2
	1	7	20.95	20.87	20.84		2
	1	14	20.93	20.93	20.95		2
	8	0	19.75	19.77	19.85	0-3	3
	8	4	19.74	19.72	19.86		3
	8	7	19.77	19.74	19.86		3
	15	0	19.75	19.68	19.84		3

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Table 9-50
LTE Band 2 (PCS) Antenna 3 Maximum Conducted Powers - 1.4 MHz Bandwidth

LTE Band 2 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18607 (1850.7 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19193 (1909.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.88	22.52	22.85	0	0
	1	2	22.76	22.64	22.91		0
	1	5	22.74	22.72	22.95		0
	3	0	22.73	22.77	22.84		0
	3	2	22.75	22.69	22.88		0
	3	3	22.70	22.73	22.89		0
	6	0	21.71	21.74	21.85	0-1	1
16QAM	1	0	21.51	21.53	21.71	0-1	1
	1	2	21.57	21.54	21.74		1
	1	5	21.56	21.52	21.72		1
	3	0	21.28	21.36	21.45		1
	3	2	21.30	21.32	21.46		1
	3	3	21.33	21.30	21.45		1
	6	0	20.69	20.72	20.86	0-2	2
64QAM	1	0	20.85	20.88	20.81	0-2	2
	1	2	20.82	20.89	20.89		2
	1	5	20.89	20.90	20.92		2
	3	0	20.65	20.69	20.77		2
	3	2	20.64	20.65	20.84		2
	3	3	20.68	20.66	20.85		2
	6	0	19.66	19.67	19.78	0-3	3

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Table 9-51
LTE Band 2 (PCS) Antenna 3 Reduced Conducted Powers - 20 MHz Bandwidth

LTE Band 2 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18700 (1860.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19100 (1900.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.27	22.39	22.77	0	0
	1	50	22.38	22.49	**22.84**		0
	1	99	22.31	22.42	22.83		0
	50	0	21.57	21.73	**22.00**	0-1	0.7
	50	25	21.60	21.68	21.86		0.7
	50	50	21.58	21.61	21.63		0.7
	100	0	21.60	21.65	21.66		0.7
16QAM	1	0	21.64	21.82	21.95	0-1	0.7
	1	50	21.73	21.95	21.98		0.7
	1	99	21.75	21.96	22.12		0.7
	50	0	20.56	20.75	20.81	0-2	1.7
	50	25	20.58	20.70	20.87		1.7
	50	50	20.54	20.62	20.63		1.7
	100	0	20.56	20.69	20.73		1.7
64QAM	1	0	20.81	20.97	21.12	0-2	1.7
	1	50	20.93	21.06	21.20		1.7
	1	99	20.96	21.07	21.27		1.7
	50	0	19.54	19.74	19.82	0-3	2.7
	50	25	19.56	19.69	19.83		2.7
	50	50	19.52	19.61	19.62		2.7
	100	0	19.52	19.65	19.69		2.7

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Table 9-52
LTE Band 2 (PCS) Antenna 3 Reduced Conducted Powers - 15 MHz Bandwidth

LTE Band 2 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18675 (1857.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19125 (1902.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.43	22.48	22.54	0	0
	1	36	22.46	22.56	22.62		0
	1	74	22.52	22.57	22.68		0
	36	0	21.78	21.81	21.85	0-1	0.7
	36	18	21.74	21.83	21.85		0.7
	36	37	21.76	21.80	21.83		0.7
	75	0	21.78	21.82	21.86		0.7
16QAM	1	0	21.52	21.68	21.65	0-1	0.7
	1	36	21.60	21.67	21.68		0.7
	1	74	21.56	21.72	21.73		0.7
	36	0	20.77	20.81	20.84	0-2	1.7
	36	18	20.74	20.83	20.81		1.7
	36	37	20.78	20.82	20.83		1.7
	75	0	20.77	20.83	20.85		1.7
64QAM	1	0	20.86	20.94	21.02	0-2	1.7
	1	36	20.96	21.06	21.06		1.7
	1	74	20.91	21.04	21.15		1.7
	36	0	19.78	19.86	19.85	0-3	2.7
	36	18	19.73	19.82	19.83		2.7
	36	37	19.79	19.83	19.81		2.7
	75	0	19.75	19.79	19.81		2.7

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Table 9-53
LTE Band 2 (PCS) Antenna 3 Reduced Conducted Powers - 10 MHz Bandwidth

LTE Band 2 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18650 (1855.0 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19150 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.50	22.52	22.56	0	0
	1	25	22.58	22.59	22.60		0
	1	49	22.54	22.58	22.67		0
	25	0	21.80	21.83	21.89	0-1	0.7
	25	12	21.82	21.78	21.84		0.7
	25	25	21.71	21.77	21.81		0.7
	50	0	21.77	21.85	21.88		0.7
16QAM	1	0	21.57	21.62	21.71	0-1	0.7
	1	25	21.54	21.71	21.76		0.7
	1	49	21.61	21.69	21.69		0.7
	25	0	20.79	20.85	20.84	0-2	1.7
	25	12	20.81	20.80	20.82		1.7
	25	25	20.72	20.78	20.78		1.7
	50	0	20.77	20.84	20.84		1.7
64QAM	1	0	20.92	20.94	20.97	0-2	1.7
	1	25	20.97	21.06	21.03		1.7
	1	49	21.06	21.01	21.11		1.7
	25	0	19.82	19.88	19.90	0-3	2.7
	25	12	19.80	19.90	19.87		2.7
	25	25	19.76	19.84	19.80		2.7
	50	0	19.75	19.87	19.83		2.7

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Table 9-54
LTE Band 2 (PCS) Antenna 3 Reduced Conducted Powers - 5 MHz Bandwidth

LTE Band 2 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18625 (1852.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19175 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.48	22.69	22.64	0	0
	1	12	22.47	22.67	22.71		0
	1	24	22.48	22.70	22.75		0
	12	0	21.91	21.93	22.00	0-1	0.7
	12	6	21.79	21.92	21.94		0.7
	12	13	21.76	21.97	21.91		0.7
	25	0	21.84	21.94	21.98		0.7
16QAM	1	0	21.56	21.61	21.76	0-1	0.7
	1	12	21.63	21.72	21.78		0.7
	1	24	21.53	21.77	21.82		0.7
	12	0	20.72	20.88	20.99	0-2	1.7
	12	6	20.82	20.91	20.92		1.7
	12	13	20.73	20.87	20.90		1.7
	25	0	20.79	20.90	20.93		1.7
64QAM	1	0	21.02	21.09	21.05	0-2	1.7
	1	12	20.89	21.11	21.12		1.7
	1	24	20.92	21.08	21.15		1.7
	12	0	19.77	19.89	19.92	0-3	2.7
	12	6	19.79	19.84	19.88		2.7
	12	13	19.67	19.77	19.85		2.7
	25	0	19.85	19.92	19.98		2.7

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Table 9-55
LTE Band 2 (PCS) Antenna 3 Reduced Conducted Powers - 3 MHz Bandwidth

LTE Band 2 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18615 (1851.5 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19185 (1908.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.44	22.55	22.62	0	0
	1	7	22.43	22.54	22.65		0
	1	14	22.41	22.63	22.66		0
	8	0	21.76	21.82	21.92	0-1	0.7
	8	4	21.73	21.80	21.91		0.7
	8	7	21.72	21.76	21.90		0.7
	15	0	21.74	21.79	21.91		0.7
16QAM	1	0	21.58	21.62	21.72	0-1	0.7
	1	7	21.61	21.69	21.78		0.7
	1	14	21.48	21.64	21.76		0.7
	8	0	20.73	20.81	20.87	0-2	1.7
	8	4	20.71	20.80	20.90		1.7
	8	7	20.72	20.76	20.89		1.7
	15	0	20.69	20.82	20.89		1.7
64QAM	1	0	20.95	20.98	21.12	0-2	1.7
	1	7	20.88	21.03	21.13		1.7
	1	14	20.91	21.01	21.15		1.7
	8	0	19.72	19.82	19.89	0-3	2.7
	8	4	19.76	19.78	19.88		2.7
	8	7	19.73	19.79	19.91		2.7
	15	0	19.74	19.77	19.89		2.7

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Table 9-56
LTE Band 2 (PCS) Antenna 3 Reduced Conducted Powers - 1.4 MHz Bandwidth

LTE Band 2 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 18607 (1850.7 MHz)	Mid Channel 18900 (1880.0 MHz)	High Channel 19193 (1909.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.46	22.57	22.62	0	0
	1	2	22.45	22.58	22.70		0
	1	5	22.44	22.62	22.74		0
	3	0	22.45	22.59	22.63		0
	3	2	22.43	22.52	22.61		0
	3	3	22.46	22.51	22.64		0
	6	0	21.74	21.83	21.95	0-1	0.7
16QAM	1	0	21.56	21.69	21.76	0-1	0.7
	1	2	21.58	21.71	21.83		0.7
	1	5	21.56	21.76	21.81		0.7
	3	0	21.38	21.46	21.52		0.7
	3	2	21.32	21.39	21.63		0.7
	3	3	21.35	21.45	21.52		0.7
	6	0	20.69	20.86	20.87	0-2	1.7
64QAM	1	0	20.89	20.97	21.06	0-2	1.7
	1	2	20.87	20.98	21.15		1.7
	1	5	20.88	21.02	21.17		1.7
	3	0	20.69	20.76	20.91		1.7
	3	2	20.68	20.73	20.89		1.7
	3	3	20.70	20.75	20.61		1.7
	6	0	19.71	19.77	19.86	0-3	2.7

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9.4.7 LTE Band 25

Table 9-57
LTE Band 25 (PCS) Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.63	24.66	24.66	0	0
	1	50	25.00	24.75	**25.01**		0
	1	99	24.72	24.61	24.71		0
	50	0	23.72	23.80	**23.88**	0-1	1
	50	25	23.73	23.81	23.78		1
	50	50	23.78	23.84	23.72		1
	100	0	23.72	23.68	23.73		1
16QAM	1	0	23.57	23.59	23.59	0-1	1
	1	50	23.74	23.79	23.57		1
	1	99	23.57	23.59	23.65		1
	50	0	22.73	22.79	22.88	0-2	2
	50	25	22.77	22.76	22.77		2
	50	50	22.81	22.81	22.76		2
	100	0	22.74	22.72	22.72		2
64QAM	1	0	22.72	22.77	22.75	0-2	2
	1	50	22.91	22.89	22.87		2
	1	99	22.73	22.96	22.86		2
	50	0	21.71	21.76	21.87	0-3	3
	50	25	21.72	21.69	21.75		3
	50	50	21.78	21.74	21.72		3
	100	0	21.70	21.72	21.71		3

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Table 9-58
LTE Band 25 (PCS) Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 25 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26115 (1857.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26615 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.59	24.75	24.74	0	0
	1	36	24.76	24.86	24.85		0
	1	74	24.70	24.73	24.81		0
	36	0	23.82	23.89	23.90	0-1	1
	36	18	23.85	23.91	23.88		1
	36	37	23.86	23.89	23.87		1
	75	0	23.84	23.90	23.86		1
16QAM	1	0	23.36	23.84	23.38	0-1	1
	1	36	23.49	24.01	23.54		1
	1	74	23.41	23.91	23.40		1
	36	0	22.90	22.91	22.90	0-2	2
	36	18	22.87	22.95	22.88		2
	36	37	22.86	22.94	22.87		2
	75	0	22.82	22.90	22.83		2
64QAM	1	0	22.94	22.72	22.67	0-2	2
	1	36	23.07	22.83	22.74		2
	1	74	23.01	22.68	23.00		2
	36	0	21.89	21.94	21.92	0-3	3
	36	18	21.89	22.00	21.92		3
	36	37	21.90	21.96	21.91		3
	75	0	21.78	21.91	21.92		3

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Table 9-59
LTE Band 25 (PCS) Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 25 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26090 (1855.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26640 (1910.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.71	24.71	24.70	0	0
	1	25	24.73	24.83	24.77		0
	1	49	24.76	24.83	24.73		0
	25	0	23.86	23.89	23.96	0-1	1
	25	12	23.83	23.90	23.86		1
	25	25	23.81	23.95	23.94		1
	50	0	23.85	23.90	23.92		1
16QAM	1	0	23.41	23.42	23.84	0-1	1
	1	25	23.43	23.50	23.90		1
	1	49	23.41	23.44	23.88		1
	25	0	22.92	22.96	23.02	0-2	2
	25	12	22.91	22.97	22.91		2
	25	25	22.92	22.99	23.03		2
	50	0	22.84	22.88	22.90		2
64QAM	1	0	22.97	23.02	22.68	0-2	2
	1	25	22.98	23.07	22.74		2
	1	49	23.01	23.04	22.78		2
	25	0	21.88	21.90	22.02	0-3	3
	25	12	21.85	21.90	21.94		3
	25	25	21.84	21.95	22.04		3
	50	0	21.84	21.90	21.93		3

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Table 9-60
LTE Band 25 (PCS) Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 25 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26065 (1852.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26665 (1912.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.97	24.90	24.87	0	0
	1	12	24.99	24.91	24.91		0
	1	24	24.91	24.92	24.87		0
	12	0	23.87	23.93	23.87	0-1	1
	12	6	23.84	23.87	23.90		1
	12	13	23.80	23.87	23.92		1
	25	0	23.84	23.89	23.90		1
16QAM	1	0	23.67	24.18	23.44	0-1	1
	1	12	23.65	24.17	23.48		1
	1	24	23.63	24.18	23.43		1
	12	0	22.91	22.99	22.99	0-2	2
	12	6	22.89	22.97	23.01		2
	12	13	22.85	22.94	23.02		2
	25	0	22.84	23.02	22.92		2
64QAM	1	0	23.02	23.12	23.18	0-2	2
	1	12	23.01	23.14	23.11		2
	1	24	22.99	23.14	23.13		2
	12	0	21.84	21.92	21.92	0-3	3
	12	6	21.80	21.85	21.94		3
	12	13	21.79	21.83	21.94		3
	25	0	21.80	21.91	21.93		3

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Table 9-61
LTE Band 25 (PCS) Maximum Conducted Powers - 3 MHz Bandwidth

LTE Band 25 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26055 (1851.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26675 (1913.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.73	24.72	24.76	0	0
	1	7	24.75	24.74	24.78		0
	1	14	24.80	24.80	24.76		0
	8	0	23.84	23.82	23.90	0-1	1
	8	4	23.83	23.81	23.88		1
	8	7	23.83	23.81	23.89		1
	15	0	23.82	23.80	23.89		1
16QAM	1	0	23.40	23.40	23.90	0-1	1
	1	7	23.43	23.41	23.92		1
	1	14	23.41	23.39	23.93		1
	8	0	22.86	22.86	23.03	0-2	2
	8	4	22.87	22.86	22.98		2
	8	7	22.85	22.82	22.99		2
	15	0	22.86	22.85	22.96		2
64QAM	1	0	22.97	22.95	22.73	0-2	2
	1	7	22.99	22.98	22.78		2
	1	14	23.02	23.00	22.85		2
	8	0	21.83	21.87	21.97	0-3	3
	8	4	21.82	21.83	21.95		3
	8	7	21.84	21.83	21.95		3
	15	0	21.80	21.83	21.91		3

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Table 9-62
LTE Band 25 (PCS) Maximum Conducted Powers - 1.4 MHz Bandwidth

LTE Band 25 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26047 (1850.7 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26683 (1914.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	24.93	24.77	24.79	0	0
	1	2	24.89	24.75	24.74		0
	1	5	24.91	24.75	24.80		0
	3	0	24.79	24.80	24.87		0
	3	2	24.80	24.86	24.89		0
	3	3	24.80	24.85	24.90		0
	6	0	23.82	23.83	23.86	0-1	1
16QAM	1	0	23.32	23.90	23.30	0-1	1
	1	2	23.30	23.89	23.25		1
	1	5	23.32	23.88	23.28		1
	3	0	23.64	23.84	23.64		1
	3	2	23.66	23.80	23.65		1
	3	3	23.68	23.81	23.64		1
	6	0	22.99	22.73	23.05	0-2	2
64QAM	1	0	23.01	22.72	22.99	0-2	2
	1	2	23.04	22.75	22.96		2
	1	5	23.01	22.67	22.98		2
	3	0	23.03	22.88	22.92		2
	3	2	23.03	22.88	22.93		2
	3	3	23.04	22.90	22.93		2
	6	0	21.78	22.09	22.02	0-3	3

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Table 9-63
LTE Band 25 (PCS) Reduced Conducted Powers – 20 MHz Bandwidth

LTE Band 25 (PCS) 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26140 (1860.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26590 (1905.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.86	22.90	22.86	0	0
	1	50	23.01	**23.03**	22.95		0
	1	99	22.92	22.92	22.93		0
	50	0	23.00	23.02	23.04	0-1	0
	50	25	23.03	23.01	23.03		0
	50	50	23.03	**23.05**	22.92		0
	100	0	22.93	23.01	23.00		0
16QAM	1	0	23.16	22.88	23.04	0-1	0
	1	50	23.20	23.00	23.19		0
	1	99	23.16	22.95	23.08		0
	50	0	22.96	22.95	23.14	0-2	0
	50	25	23.00	23.08	23.09		0
	50	50	23.01	23.05	23.03		0
	100	0	23.07	23.00	23.05		0
64QAM	1	0	23.18	23.20	23.17	0-2	0
	1	50	23.10	23.13	23.17		0
	1	99	23.05	23.18	23.02		0
	50	0	22.01	21.95	22.13	0-3	1
	50	25	21.96	21.96	22.14		1
	50	50	22.02	22.01	22.01		1
	100	0	22.01	22.00	21.99		1

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Table 9-64
LTE Band 25 (PCS) Reduced Conducted Powers – 15 MHz Bandwidth

LTE Band 25 (PCS) 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26115 (1857.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26615 (1907.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.71	22.92	22.98	0	0
	1	36	22.85	22.99	23.00		0
	1	74	23.11	22.92	22.84		0
	36	0	23.01	23.04	22.94	0-1	0
	36	18	23.12	23.08	23.01		0
	36	37	22.97	22.97	22.92		0
	75	0	22.76	22.95	22.93		0
16QAM	1	0	23.16	23.07	23.03	0-1	0
	1	36	23.19	23.15	23.15		0
	1	74	23.20	23.02	23.04		0
	36	0	22.83	23.01	23.04	0-2	0
	36	18	23.00	23.05	23.07		0
	36	37	22.97	23.17	22.99		0
	75	0	23.17	23.10	23.05		0
64QAM	1	0	23.12	23.06	23.15	0-2	0
	1	36	22.97	23.08	23.08		0
	1	74	23.07	22.98	23.03		0
	36	0	22.04	22.17	22.05	0-3	1
	36	18	21.90	21.84	21.94		1
	36	37	22.05	21.97	21.96		1
	75	0	21.92	22.07	21.95		1

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Table 9-65
LTE Band 25 (PCS) Reduced Conducted Powers – 10 MHz Bandwidth

LTE Band 25 (PCS) 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26090 (1855.0 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26640 (1910.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.90	22.92	22.93	0	0
	1	25	22.92	23.15	23.03		0
	1	49	22.86	22.93	22.94		0
	25	0	23.10	23.06	23.16	0-1	0
	25	12	22.93	22.96	23.11		0
	25	25	22.89	23.09	22.98		0
	50	0	22.87	22.87	22.96		0
16QAM	1	0	23.06	23.17	23.16	0-1	0
	1	25	23.06	23.18	23.08		0
	1	49	23.09	23.20	23.00		0
	25	0	23.06	23.01	23.08	0-2	0
	25	12	23.14	23.06	22.97		0
	25	25	22.92	22.99	23.06		0
	50	0	23.03	23.10	23.18		0
64QAM	1	0	23.16	23.18	23.00	0-2	0
	1	25	23.17	23.12	22.97		0
	1	49	23.15	23.02	22.90		0
	25	0	22.09	22.05	21.94	0-3	1
	25	12	21.97	21.85	21.90		1
	25	25	22.07	21.93	21.97		1
	50	0	22.11	22.09	21.87		1

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Table 9-66
LTE Band 25 (PCS) Reduced Conducted Powers – 5 MHz Bandwidth

LTE Band 25 (PCS) 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26065 (1852.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26665 (1912.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.94	22.80	22.72	0	0
	1	12	23.00	23.12	23.00		0
	1	24	22.86	22.91	22.92		0
	12	0	22.99	23.13	23.09	0-1	0
	12	6	22.86	22.98	23.06		0
	12	13	23.07	23.04	22.89		0
	25	0	22.89	22.97	23.04		0
16QAM	1	0	23.00	23.16	23.16	0-1	0
	1	12	23.06	23.08	23.06		0
	1	24	23.13	23.02	23.20		0
	12	0	22.95	22.83	22.97	0-2	0
	12	6	23.11	23.02	22.99		0
	12	13	22.88	22.94	23.02		0
	25	0	23.16	23.09	23.13		0
64QAM	1	0	23.19	23.05	23.11	0-2	0
	1	12	23.06	23.04	23.06		0
	1	24	23.12	22.95	23.16		0
	12	0	21.99	22.05	21.88	0-3	1
	12	6	21.94	22.04	21.98		1
	12	13	22.03	21.89	22.10		1
	25	0	22.03	22.05	21.87		1

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Table 9-67
LTE Band 25 (PCS) Reduced Conducted Powers – 3 MHz Bandwidth

LTE Band 25 (PCS) 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26055 (1851.5 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26675 (1913.5 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.88	22.95	22.94	0	0
	1	7	23.01	23.10	22.95		0
	1	14	22.95	22.76	22.96		0
	8	0	22.95	23.02	23.06	0-1	0
	8	4	23.00	22.90	22.98		0
	8	7	23.08	23.04	23.03		0
	15	0	23.02	22.96	23.03		0
16QAM	1	0	23.06	23.16	23.18	0-1	0
	1	7	23.10	23.07	23.08		0
	1	14	23.16	23.16	23.15		0
	8	0	22.91	22.93	22.83	0-2	0
	8	4	22.95	23.14	22.94		0
	8	7	22.97	23.09	22.90		0
	15	0	22.97	23.06	23.05		0
64QAM	1	0	23.20	23.16	23.18	0-2	0
	1	7	23.16	23.16	23.11		0
	1	14	23.09	22.99	22.95		0
	8	0	21.87	22.05	22.08	0-3	1
	8	4	22.02	21.88	22.08		1
	8	7	22.02	22.04	22.02		1
	15	0	22.04	21.86	21.93		1

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Table 9-68
LTE Band 25 (PCS) Reduced Conducted Powers – 1.4 MHz Bandwidth

LTE Band 25 (PCS) 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26047 (1850.7 MHz)	Mid Channel 26365 (1882.5 MHz)	High Channel 26683 (1914.3 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]				
QPSK	1	0	22.79	23.02	22.92	0	0
	1	2	23.06	22.91	22.97		0
	1	5	23.00	22.88	23.05		0
	3	0	22.93	22.95	22.89		0
	3	2	23.15	22.99	22.96		0
	3	3	23.08	23.10	22.87		0
	6	0	22.97	22.94	23.00	0-1	0
16QAM	1	0	23.00	23.17	23.12	0-1	0
	1	2	23.20	23.11	23.00		0
	1	5	23.15	23.00	23.16		0
	3	0	22.83	23.06	22.98		0
	3	2	23.10	23.09	23.19		0
	3	3	23.09	23.00	23.09		0
	6	0	22.96	23.01	23.09	0-2	0
64QAM	1	0	23.16	23.00	23.20	0-2	0
	1	2	23.07	23.13	23.06		0
	1	5	22.90	23.05	23.01		0
	3	0	22.99	23.02	23.01		0
	3	2	23.03	23.02	23.02		0
	3	3	23.02	23.06	22.89		0
	6	0	22.04	22.08	22.09	0-3	1

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9.4.8 LTE Band 41

Table 9-69
LTE Band 41 PC3 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	24.96	24.98	25.01	24.84	24.87	0	0
	1	50	25.10	25.12	**25.13**	24.96	25.11		0
	1	99	24.89	24.99	25.00	24.83	25.00		0
	50	0	23.98	24.11	24.07	24.00	24.01	0-1	1
	50	25	24.09	24.12	**24.13**	24.03	24.05		1
	50	50	24.11	24.10	24.07	23.96	24.07		1
	100	0	24.04	24.10	24.05	23.98	23.96		1
16QAM	1	0	23.41	23.82	23.67	23.38	23.69	0-1	1
	1	50	23.56	23.99	23.77	23.47	23.85		1
	1	99	23.42	23.83	23.63	23.35	23.82		1
	50	0	22.48	22.54	22.48	22.45	22.45	0-2	2
	50	25	22.57	22.53	22.50	22.49	22.48		2
	50	50	22.59	22.51	22.60	22.42	22.51		2
	100	0	22.53	22.50	22.51	22.47	22.42		2
64QAM	1	0	22.78	22.67	22.96	22.71	22.62	0-2	2
	1	50	22.94	22.83	23.10	22.83	22.77		2
	1	99	22.76	22.72	22.96	22.70	22.70		2
	50	0	21.43	21.47	21.47	21.49	21.40	0-3	3
	50	25	21.54	21.48	21.50	21.50	21.41		3
	50	50	21.74	21.47	21.44	21.43	21.43		3
	100	0	21.47	21.50	21.51	21.42	21.51		3

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Table 9-70
LTE Band 41 PC3 Maximum Conducted Powers - 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	24.94	24.75	24.70	24.76	24.72	0	0
	1	36	24.94	24.80	24.77	24.83	24.83		0
	1	74	24.83	24.71	24.64	24.77	24.77		0
	36	0	23.78	23.77	23.77	23.78	23.87	0-1	1
	36	18	23.83	23.78	23.78	23.80	23.83		1
	36	37	23.80	23.74	23.77	23.75	23.85		1
	75	0	23.84	23.73	23.77	23.80	23.85		1
16QAM	1	0	23.30	23.46	23.37	23.39	23.40	0-1	1
	1	36	23.31	23.51	23.43	23.43	23.45		1
	1	74	23.18	23.42	23.30	23.35	23.41		1
	36	0	22.75	22.78	22.75	22.75	22.81	0-2	2
	36	18	22.80	22.77	22.74	22.72	22.80		2
	36	37	22.80	22.75	22.75	22.71	22.81		2
	75	0	22.81	22.72	22.71	22.77	22.79		2
64QAM	1	0	23.02	22.58	22.22	22.95	22.25	0-2	2
	1	36	23.06	22.60	22.30	23.00	22.35		2
	1	74	23.02	22.52	22.18	22.94	22.27		2
	36	0	21.80	21.68	21.77	21.79	21.85	0-3	3
	36	18	21.85	21.69	21.78	21.82	21.83		3
	36	37	21.84	21.64	21.78	21.80	21.81		3
	75	0	21.82	21.67	21.70	21.75	21.75		3

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Table 9-71
LTE Band 41 PC3 Maximum Conducted Powers - 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	24.86	24.82	24.80	24.86	24.80	0	0
	1	25	24.84	24.80	24.86	24.87	24.85		0
	1	49	24.83	24.77	24.82	24.88	24.84		0
	25	0	23.78	23.84	23.85	23.82	23.87	0-1	1
	25	12	23.85	23.80	23.85	23.81	23.86		1
	25	25	23.88	23.79	23.84	23.82	23.88		1
	50	0	23.90	23.81	23.90	23.86	23.88		1
16QAM	1	0	23.50	23.65	23.47	23.43	23.62	0-1	1
	1	25	23.51	23.63	23.51	23.45	23.66		1
	1	49	23.45	23.62	23.44	23.41	23.63		1
	25	0	22.79	22.84	22.84	22.80	22.86	0-2	2
	25	12	22.84	22.80	22.82	22.82	22.85		2
	25	25	22.86	22.78	22.85	22.81	22.86		2
	50	0	22.86	22.86	22.80	22.84	22.85		2
64QAM	1	0	23.07	22.85	22.32	23.01	22.90	0-2	2
	1	25	23.09	22.89	22.34	23.05	22.92		2
	1	49	23.05	22.88	22.30	23.00	22.91		2
	25	0	21.69	21.70	21.83	21.75	21.73	0-3	3
	25	12	21.76	21.68	21.82	21.75	21.72		3
	25	25	21.81	21.67	21.86	21.71	21.71		3
	50	0	21.75	21.73	21.80	21.78	21.75		3

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Table 9-72
LTE Band 41 PC3 Maximum Conducted Powers - 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed per 3GPP [dB]	MPR [dB]
			Conducted Power [dBm]						
QPSK	1	0	25.05	24.90	24.99	24.79	24.87	0	0
	1	12	25.03	24.88	24.95	24.80	24.92		0
	1	24	25.00	24.86	24.92	24.76	24.93		0
	12	0	23.92	23.88	23.92	23.79	23.90	0-1	1
	12	6	23.90	23.81	23.86	23.79	23.86		1
	12	13	23.90	23.82	23.87	23.81	23.85		1
	25	0	23.91	23.84	23.91	23.88	23.88		1
16QAM	1	0	23.60	23.63	23.72	23.39	23.51	0-1	1
	1	12	23.59	23.60	23.70	23.37	23.56		1
	1	24	23.60	23.56	23.64	23.38	23.56		1
	12	0	22.84	22.89	22.94	22.81	22.80	0-2	2
	12	6	22.82	22.85	22.87	22.77	22.77		2
	12	13	22.80	22.80	22.88	22.78	22.75		2
	25	0	22.90	22.81	22.87	22.84	22.85		2
64QAM	1	0	23.20	22.99	23.06	22.49	23.20	0-2	2
	1	12	23.20	22.98	23.08	22.50	23.20		2
	1	24	23.19	22.92	23.06	22.47	23.19		2
	12	0	21.90	21.73	21.77	21.75	21.90	0-3	3
	12	6	21.89	21.72	21.75	21.74	21.86		3
	12	13	21.89	21.64	21.74	21.76	21.83		3
	25	0	21.80	21.70	21.75	21.85	21.70		3

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Table 9-73
LTE Band 41 PC3 Reduced Conducted Powers – 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	23.90	23.93	23.93	23.82	23.86	0	0
	1	50	24.04	24.04	**24.05**	23.92	24.00		0
	1	99	23.86	23.91	23.91	23.78	23.93		0
	50	0	23.92	24.08	24.08	23.96	23.98	0-1	0
	50	25	24.07	24.09	**24.10**	23.99	24.02		0
	50	50	24.06	24.06	24.03	23.92	24.02		0
	100	0	23.98	24.03	24.04	23.94	23.96		0
16QAM	1	0	23.41	23.64	23.65	23.34	23.69	0-1	0
	1	50	23.58	23.77	23.82	23.48	23.87		0
	1	99	23.47	23.64	23.63	23.34	23.81		0
	50	0	22.45	22.54	22.50	22.40	22.46	0-2	1
	50	25	22.53	22.53	22.53	22.49	22.49		1
	50	50	22.58	22.56	22.51	22.40	22.52		1
	100	0	22.50	22.51	22.49	22.45	22.43		1
64QAM	1	0	22.82	22.96	22.98	22.72	22.56	0-2	1
	1	50	22.93	23.16	23.13	22.85	22.78		1
	1	99	22.82	22.97	22.98	22.70	22.69		1
	50	0	21.47	21.51	21.44	21.46	21.37	0-3	2
	50	25	21.56	21.50	21.51	21.50	21.44		2
	50	50	21.70	21.49	21.47	21.47	21.46		2
	100	0	21.47	21.51	21.49	21.43	21.43		2

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Table 9-74
LTE Band 41 PC3 Reduced Conducted Powers – 15 MHz Bandwidth

LTE Band 41 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	24.00	24.08	24.11	24.07	24.11	0	0
	1	36	24.10	24.12	24.20	24.13	24.19		0
	1	74	24.05	24.04	24.12	24.11	24.20		0
	36	0	24.03	24.02	24.02	24.05	24.16	0-1	0
	36	18	24.09	23.98	24.03	24.07	24.15		0
	36	37	24.09	23.98	24.04	24.07	24.15		0
	75	0	24.07	24.00	24.04	24.10	24.20		0
16QAM	1	0	23.78	23.59	23.61	23.53	23.70	0-1	0
	1	36	23.84	23.63	23.69	23.68	23.83		0
	1	74	23.79	23.57	23.64	23.64	23.81		0
	36	0	22.49	22.60	22.52	22.57	22.81	0-2	1
	36	18	22.53	22.58	22.56	22.59	22.75		1
	36	37	22.53	22.57	22.52	22.55	22.78		1
	75	0	22.51	22.47	22.53	22.56	22.69		1
64QAM	1	0	23.19	23.17	22.96	22.97	23.20	0-2	1
	1	36	23.20	23.19	23.07	23.01	23.19		1
	1	74	23.17	23.20	23.00	23.01	23.18		1
	36	0	21.51	21.54	21.52	21.52	21.68	0-3	2
	36	18	21.56	21.46	21.55	21.55	21.66		2
	36	37	21.54	21.48	21.57	21.52	21.65		2
	75	0	21.54	21.45	21.49	21.52	21.66		2

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Table 9-75
LTE Band 41 PC3 Reduced Conducted Powers – 10 MHz Bandwidth

LTE Band 41 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	24.20	24.04	24.20	24.20	24.12	0	0
	1	25	24.19	24.07	24.19	24.19	24.17		0
	1	49	24.20	24.06	24.18	24.17	24.14		0
	25	0	24.06	24.04	24.14	24.12	24.19	0-1	0
	25	12	24.11	24.04	24.16	24.15	24.16		0
	25	25	24.13	24.05	24.18	24.12	24.18		0
	50	0	24.14	24.08	24.16	24.13	24.20		0
16QAM	1	0	23.69	23.73	23.41	23.39	23.86	0-1	0
	1	25	23.71	23.80	23.47	23.45	23.91		0
	1	49	23.68	23.78	23.41	23.40	23.92		0
	25	0	22.56	22.53	22.61	22.61	22.70	0-2	1
	25	12	22.64	22.51	22.64	22.63	22.66		1
	25	25	22.65	22.54	22.65	22.62	22.71		1
	50	0	22.56	22.48	22.66	22.65	22.64		1
64QAM	1	0	23.05	23.14	23.15	23.18	23.15	0-2	1
	1	25	23.10	23.20	23.20	23.17	23.20		1
	1	49	23.04	23.19	23.16	23.13	23.19		1
	25	0	21.51	21.54	21.52	21.50	21.66	0-3	2
	25	12	21.57	21.52	21.55	21.54	21.65		2
	25	25	21.61	21.52	21.55	21.50	21.70		2
	50	0	21.54	21.51	21.59	21.59	21.67		2

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Table 9-76
LTE Band 41 PC3 Reduced Conducted Powers – 5 MHz Bandwidth

LTE Band 41 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	24.18	24.04	24.20	24.05	24.20	0	0
	1	12	24.19	24.06	24.19	24.07	24.17		0
	1	24	24.20	24.05	24.20	24.06	24.20		0
	12	0	24.11	24.09	24.17	24.11	24.18	0-1	0
	12	6	24.11	24.08	24.14	24.13	24.18		0
	12	13	24.09	24.07	24.16	24.12	24.20		0
	25	0	24.12	24.08	24.17	24.12	24.19		0
16QAM	1	0	23.66	23.14	23.22	23.21	23.67	0-1	0
	1	12	23.65	23.20	23.25	23.21	23.69		0
	1	24	23.64	23.19	23.25	23.20	23.72		0
	12	0	22.70	22.55	22.72	22.50	22.73	0-2	1
	12	6	22.69	22.55	22.72	22.51	22.70		1
	12	13	22.67	22.54	22.70	22.48	22.69		1
	25	0	22.61	22.48	22.71	22.63	22.66		1
64QAM	1	0	23.18	22.88	23.19	23.20	23.05	0-2	1
	1	12	23.20	22.90	23.20	23.16	23.06		1
	1	24	23.19	22.90	23.17	23.20	23.05		1
	12	0	21.59	21.44	21.64	21.62	21.60	0-3	2
	12	6	21.54	21.44	21.58	21.63	21.55		2
	12	13	21.55	21.45	21.61	21.59	21.57		2
	25	0	21.56	21.52	21.60	21.57	21.66		2

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Table 9-77
LTE Band 41 PC2 Maximum Conducted Powers - 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	26.87	26.63	26.91	26.89	26.61	0	0
	1	50	26.99	26.80	**27.05**	27.02	26.83		0
	1	99	26.83	26.65	26.77	26.86	26.71		0
	50	0	25.96	25.95	26.03	25.95	25.92	0-1	1
	50	25	26.06	25.94	**26.07**	25.98	25.96		1
	50	50	26.04	25.92	26.05	25.92	26.01		1
	100	0	25.96	25.95	26.05	25.94	25.89		1

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Table 9-78
LTE Band 41 PC2 Reduced Conducted Powers – 20 MHz Bandwidth

LTE Band 41 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
			39750 (2506.0 MHz)	40185 (2549.5 MHz)	40620 (2593.0 MHz)	41055 (2636.5 MHz)	41490 (2680.0 MHz)		
			Conducted Power [dBm]						
QPSK	1	0	25.82	26.08	25.89	25.75	25.96	0	0
	1	50	26.00	**26.22**	26.01	25.84	26.12		0
	1	99	25.81	26.07	25.87	25.74	25.94		0
	50	0	25.95	26.06	26.07	25.97	25.96	0-1	0
	50	25	26.07	26.09	**26.10**	26.04	26.01		0
	50	50	26.06	26.04	25.95	25.92	26.03		0
	100	0	25.99	26.03	26.04	25.96	25.94		0

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9.4.9 LTE Uplink Carrier Aggregation Conducted Powers

Table 9-79
LTE B41 Uplink Carrier Aggregation Maximum Conducted Powers

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC3	20	40620	2593.0	QPSK	1	0	LTE B41	20	40422	2573.2	QPSK	1	99	24.15	25.01

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	40620	2593.0	QPSK	1	0	LTE B41 PC2	20	40422	2573.2	QPSK	1	99	26.11	26.91

Table 9-80
LTE B41 Uplink Carrier Aggregation Reduced Conducted Powers

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC3	20	41490	2680.0	QPSK	1	0	LTE B41	20	41292	2660.2	QPSK	1	99	23.27	23.86
CA_41C	LTE B41 PC3	20	41055	2636.5	QPSK	50	0	LTE B41	20	40857	2616.7	QPSK	50	50	23.12	23.96

	PCC							SCC							Power	
Combination	PCC Band	PCC Bandwidth [MHz]	PCC (UL/DL) Channel	PCC (UL/DL) Frequency [MHz]	Modulation	PCC UL# RB	PCC UL RB Offset	SCC Band	SCC Bandwidth [MHz]	SCC (UL/DL) Channel	SCC (UL/DL) Frequency [MHz]	Modulation	SCC UL# RB	SCC UL RB Offset	LTE Tx.Power with UL CA Enabled (dBm)	LTE Single Carrier Tx Power (dBm)
CA_41C	LTE B41 PC2	20	41490	2680.0	QPSK	1	0	LTE B41 PC2	20	41292	2660.2	QPSK	1	99	25.40	25.96
CA_41C	LTE B41 PC2	20	41055	2636.5	QPSK	50	0	LTE B41 PC2	20	40857	2616.7	QPSK	50	50	25.10	25.97

Notes:

1. This device supports uplink carrier aggregation for LTE CA_41C with a maximum of two component carriers. For intraband contiguous carrier aggregation scenarios, 3GPP 36.101 Table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when non-contiguous RB allocation is implemented. The conducted powers and MPR settings in this device are permanently implemented per the above 3GPP requirements.
2. Per FCC Guidance, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

Figure 9-4
Power Measurement Setup

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9.5 NR Conducted Powers

9.5.1 NR Band n71

Table 9-81
NR Band n71 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n71 20 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	25.11	0	0.0
	1	53	25.27		0.0
	1	104	25.05		0.0
	50	0	24.99	0-0.5	0.0
	50	28	25.22	0	0.0
	50	56	25.06	0-0.5	0.0
	100	0	25.20		0.0
DFT-s-OFDM QPSK	1	1	25.06	0	0.0
	1	53	**25.14**		0.0
	1	104	25.09		0.0
	50	0	24.98	0-1	0.0
	50	28	**25.14**	0	0.0
	50	56	25.06	0-1	0.0
	100	0	25.10		0.0
DFT-s-OFDM 16QAM	1	1	23.31	0-1	1.0
CP-OFDM QPSK	1	1	23.16	0-1.5	1.5

Note: NR Band n71 at 20 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-82
NR Band n71 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n71 15 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	136100 (680.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.94	0	0.0
	1	40	25.17		0.0
	1	77	24.98		0.0
	36	0	25.17	0-0.5	0.0
	36	22	25.21	0	0.0
	36	43	25.05	0-0.5	0.0
	75	0	25.18		0.0
DFT-s-OFDM QPSK	1	1	25.00	0	0.0
	1	40	25.14		0.0
	1	77	25.00		0.0
	36	0	25.19	0-1	0.0
	36	22	25.17	0	0.0
	36	43	25.12	0-1	0.0
	75	0	25.09		0.0
DFT-s-OFDM 16QAM	1	1	23.27	0-1	1.0
CP-OFDM QPSK	1	1	23.00	0-1.5	1.5

Note: NR Band n71 at 15 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-83
NR Band n71 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n71 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	133600 (668 MHz)	136100 (680.5 MHz)	138600 (693 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.18	25.19	25.02	0	0.0
	1	26	25.33	25.31	25.23		0.0
	1	50	25.16	25.13	25.16		0.0
	25	0	25.20	25.16	25.22	0-0.5	0.0
	25	14	25.24	25.20	25.23	0	0.0
	25	27	25.19	25.12	25.11	0-0.5	0.0
	50	0	25.25	25.24	25.22		0.0
DFT-s-OFDM QPSK	1	1	25.16	25.10	24.96	0	0.0
	1	26	25.23	25.23	25.16		0.0
	1	50	25.11	25.06	25.13		0.0
	25	0	25.16	25.12	25.19	0-1	0.0
	25	14	25.18	25.17	25.20	0	0.0
	25	27	25.13	25.08	25.09	0-1	0.0
	50	0	25.12	25.17	25.19		0.0
DFT-s-OFDM 16QAM	1	1	23.36	23.31	23.33	0-1	1.0
CP-OFDM QPSK	1	1	23.08	23.05	23.07	0-1.5	1.5

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Table 9-84
NR Band n71 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n71 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	133100 (665.5 MHz)	136100 (680.5 MHz)	139100 (695.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.27	25.14	25.05	0	0.0
	1	13	25.30	25.20	25.12		0.0
	1	23	25.23	25.17	25.22		0.0
	12	0	25.22	25.23	25.25	0-0.5	0.0
	12	7	25.25	25.26	25.18	0	0.0
	12	13	25.16	25.20	25.23	0-0.5	0.0
	25	0	25.20	25.21	25.19		0.0
DFT-s-OFDM QPSK	1	1	25.14	25.07	25.04	0	0.0
	1	13	25.21	25.20	25.08		0.0
	1	23	25.19	25.12	25.06		0.0
	12	0	25.20	25.17	25.21	0-1	0.0
	12	7	25.19	25.22	25.17	0	0.0
	12	13	25.16	25.18	25.19	0-1	0.0
	25	0	25.11	25.14	25.14		0.0
DFT-s-OFDM 16QAM	1	1	23.30	23.29	23.39	0-1	1.0
CP-OFDM QPSK	1	1	23.15	23.13	23.15	0-1.5	1.5

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9.5.2 NR Band n66 (AWS)

Table 9-85
NR Band n66 (AWS) SA Antenna 2 Maximum Conducted Powers - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.68	0	0.0
	1	108	25.12		0.0
	1	214	24.69		0.0
	108	0	25.02	0-0.5	0.0
	108	54	25.08	0	0.0
	108	108	25.11	0-0.5	0.0
	216	0	25.09		0.0
DFT-s-OFDM QPSK	1	1	24.68	0	0.0
	1	108	**25.14**		0.0
	1	214	24.69		0.0
	108	0	25.01	0-1	0.0
	108	54	25.07	0	0.0
	108	108	**25.12**	0-1	0.0
	216	0	25.07		0.0
DFT-s-OFDM 16QAM	1	1	23.50	0-1	1.0
CP-OFDM QPSK	1	1	23.38	0-1.5	1.5

Note: NR Band n66 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-86
NR Band n66 (AWS) SA Antenna 2 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.05	24.96	25.00	0	0.0
	1	53	25.20	25.20	25.20		0.0
	1	104	25.20	25.13	25.14		0.0
	50	0	25.05	25.11	25.15	0-0.5	0.0
	50	28	25.18	25.19	25.19	0	0.0
	50	56	25.17	25.15	25.16	0-0.5	0.0
	100	0	25.12	25.11	25.16		0.0
DFT-s-OFDM QPSK	1	1	25.06	25.06	25.04	0	0.0
	1	53	25.20	25.20	25.20		0.0
	1	104	25.12	25.12	25.11		0.0
	50	0	25.04	25.11	25.18	0-1	0.0
	50	28	25.14	25.19	25.19	0	0.0
	50	56	25.11	25.18	25.18	0-1	0.0
	100	0	25.07	25.11	25.14		0.0
DFT-s-OFDM 16QAM	1	1	23.74	23.78	23.82	0-1	1.0
CP-OFDM QPSK	1	1	23.47	23.43	23.42	0-1.5	1.5

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Table 9-87
NR Band n66 (AWS) SA Antenna 2 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	349000 (1745 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.98	25.03	25.03	0	0.0
	1	40	25.20	25.16	25.14		0.0
	1	77	25.14	25.18	25.12		0.0
	36	0	25.13	25.20	25.17	0-0.5	0.0
	36	22	25.19	25.18	25.20	0	0.0
	36	43	25.20	25.11	25.19	0-0.5	0.0
	75	0	25.16	25.17	25.20		0.0
DFT-s-OFDM QPSK	1	1	24.97	25.03	24.99	0	0.0
	1	40	25.19	25.14	25.14		0.0
	1	77	25.10	25.09	25.06		0.0
	36	0	25.07	25.18	25.15	0-1	0.0
	36	22	25.20	25.19	25.20	0	0.0
	36	43	25.19	25.16	25.19	0-1	0.0
	75	0	25.18	25.15	25.19		0.0
DFT-s-OFDM 16QAM	1	1	23.66	23.83	23.73	0-1	1.0
CP-OFDM QPSK	1	1	23.43	23.54	23.39	0-1.5	1.5

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Table 9-88
NR Band n66 (AWS) SA Antenna 2 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343000 (1715 MHz)	349000 (1745 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.04	25.13	25.07	0	0.0
	1	26	25.20	25.20	25.20		0.0
	1	50	25.19	25.12	25.14		0.0
	25	0	25.09	25.20	25.19	0-0.5	0.0
	25	14	25.20	25.20	25.20	0	0.0
	25	27	25.19	25.17	25.19	0-0.5	0.0
	50	0	25.11	25.18	25.20		0.0
DFT-s-OFDM QPSK	1	1	25.02	25.10	25.06	0	0.0
	1	26	25.19	25.18	25.16		0.0
	1	50	25.20	25.16	25.13		0.0
	25	0	25.06	25.18	25.20	0-1	0.0
	25	14	25.20	25.19	25.19	0	0.0
	25	27	25.19	25.17	25.18	0-1	0.0
	50	0	25.08	25.18	25.20		0.0
DFT-s-OFDM 16QAM	1	1	23.77	23.86	23.81	0-1	1.0
CP-OFDM QPSK	1	1	23.50	23.56	23.59	0-1.5	1.5

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Table 9-89
NR Band n66 (AWS) SA Antenna 2 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	349000 (1745 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.07	25.12	25.13	0	0.0
	1	13	25.16	25.18	25.19		0.0
	1	23	25.13	25.15	25.17		0.0
	12	0	25.17	25.20	25.20	0-0.5	0.0
	12	7	25.20	25.20	25.19	0	0.0
	12	13	25.19	25.12	25.20	0-0.5	0.0
	25	0	25.20	25.17	25.19		0.0
DFT-s-OFDM QPSK	1	1	25.14	25.18	25.14	0	0.0
	1	13	25.16	25.15	25.18		0.0
	1	23	25.20	25.09	25.13		0.0
	12	0	25.17	25.20	25.19	0-1	0.0
	12	7	25.20	25.19	25.20	0	0.0
	12	13	25.19	25.13	25.18	0-1	0.0
	25	0	25.16	25.15	25.20		0.0
DFT-s-OFDM 16QAM	1	1	23.89	23.91	23.97	0-1	1.0
CP-OFDM QPSK	1	1	23.58	23.57	23.62	0-1.5	1.5

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Table 9-90
NR Band n66 (AWS) SA Antenna 2 Reduced Conducted Powers - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.87	0	0.0
	1	108	23.14		0.0
	1	214	22.92		0.0
	108	0	23.11	0-0.5	0.0
	108	54	23.19	0	0.0
	108	108	23.20	0-0.5	0.0
	216	0	23.13		0.0
DFT-s-OFDM QPSK	1	1	22.86	0	0.0
	1	108	**23.20**		0.0
	1	214	23.05		0.0
	108	0	23.14	0-1	0.0
	108	54	**23.19**	0	0.0
	108	108	23.18	0-1	0.0
	216	0	23.16		0.0
DFT-s-OFDM 16QAM	1	1	22.66	0-1	0.0
CP-OFDM QPSK	1	1	22.95	0-1.5	0.0

Note: NR Band n66 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-91
NR Band n66 (AWS) SA Antenna 2 Reduced Conducted Powers - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.38	22.36	22.39	0	0.0
	1	53	22.60	22.52	22.47		0.0
	1	104	22.49	22.37	22.48		0.0
	50	0	22.45	22.51	22.56	0-0.5	0.0
	50	28	22.59	22.56	22.59	0	0.0
	50	56	22.54	22.54	22.58	0-0.5	0.0
	100	0	22.56	22.53	22.55		0.0
DFT-s-OFDM QPSK	1	1	22.53	22.50	22.49	0	0.0
	1	53	22.76	22.68	22.58		0.0
	1	104	22.70	22.56	22.61		0.0
	50	0	22.54	22.55	22.60	0-1	0.0
	50	28	22.57	22.64	22.63	0	0.0
	50	56	22.57	22.61	22.62	0-1	0.0
	100	0	22.51	22.57	22.63		0.0
DFT-s-OFDM 16QAM	1	1	22.30	22.33	22.29	0-1	0.0
CP-OFDM QPSK	1	1	22.49	22.49	22.48	0-1.5	0.0

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Table 9-92
NR Band n66 (AWS) SA Antenna 2 Reduced Conducted Powers - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	349000 (1745 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.30	22.39	22.30	0	0.0
	1	40	22.52	22.52	22.48		0.0
	1	77	22.45	22.48	22.49		0.0
	36	0	22.49	22.57	22.65	0-0.5	0.0
	36	22	22.59	22.66	22.61	0	0.0
	36	43	22.60	22.52	22.64	0-0.5	0.0
	75	0	22.55	22.63	22.58		0.0
DFT-s-OFDM QPSK	1	1	22.37	22.53	22.41	0	0.0
	1	40	22.66	22.57	22.59		0.0
	1	77	22.61	22.55	22.56		0.0
	36	0	22.53	22.64	22.61	0-1	0.0
	36	22	22.62	22.63	22.64	0	0.0
	36	43	22.59	22.60	22.66	0-1	0.0
	75	0	22.60	22.59	22.62		0.0
DFT-s-OFDM 16QAM	1	1	22.18	22.29	22.22	0-1	0.0
CP-OFDM QPSK	1	1	22.41	22.44	22.45	0-1.5	0.0

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Table 9-93
NR Band n66 (AWS) SA Antenna 2 Reduced Conducted Powers - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343000 (1715 MHz)	349000 (1745 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.39	22.44	22.43	0	0.0
	1	26	22.53	22.59	22.54		0.0
	1	50	22.59	22.52	22.55		0.0
	25	0	22.49	22.61	22.67	0-0.5	0.0
	25	14	22.65	22.64	22.66	0	0.0
	25	27	22.63	22.59	22.62	0-0.5	0.0
	50	0	22.54	22.62	22.66		0.0
DFT-s-OFDM QPSK	1	1	22.50	22.59	22.58	0	0.0
	1	26	22.68	22.70	22.69		0.0
	1	50	22.73	22.61	22.58		0.0
	25	0	22.57	22.66	22.65	0-1	0.0
	25	14	22.68	22.67	22.65	0	0.0
	25	27	22.71	22.70	22.68	0-1	0.0
	50	0	22.59	22.64	22.69		0.0
DFT-s-OFDM 16QAM	1	1	22.22	22.33	22.33	0-1	0.0
CP-OFDM QPSK	1	1	22.53	22.57	22.52	0-1.5	0.0

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Table 9-94
NR Band n66 (AWS) SA Antenna 2 Reduced Conducted Powers - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	349000 (1745 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.40	22.49	22.41	0	0.0
	1	13	22.48	22.55	22.44		0.0
	1	23	22.47	22.49	22.46		0.0
	12	0	22.44	22.55	22.55	0-0.5	0.0
	12	7	22.55	22.56	22.50	0	0.0
	12	13	22.50	22.52	22.51	0-0.5	0.0
	25	0	22.52	22.58	22.57		0.0
DFT-s-OFDM QPSK	1	1	22.51	22.59	22.53	0	0.0
	1	13	22.58	22.70	22.57		0.0
	1	23	22.63	22.61	22.62		0.0
	12	0	22.61	22.72	22.69	0-1	0.0
	12	7	22.66	22.65	22.68	0	0.0
	12	13	22.67	22.64	22.64	0-1	0.0
	25	0	22.62	22.61	22.65		0.0
DFT-s-OFDM 16QAM	1	1	22.35	22.37	22.36	0-1	0.0
CP-OFDM QPSK	1	1	22.60	22.59	22.57	0-1.5	0.0

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Table 9-95
NR Band n66 (AWS) NSA & SA Antenna 3 Maximum Conducted Powers - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	25.10	0	0.0
	1	108	25.53		0.0
	1	214	25.14		0.0
	108	0	25.57	0-0.5	0.0
	108	54	25.56	0	0.0
	108	108	25.53	0-0.5	0.0
	216	0	25.51		0.0
DFT-s-OFDM QPSK	1	1	25.08	0	0.0
	1	108	**25.60**		0.0
	1	214	25.13		0.0
	108	0	25.53	0-1	0.0
	108	54	**25.55**	0	0.0
	108	108	25.49	0-1	0.0
	216	0	25.43		0.0
DFT-s-OFDM 16QAM	1	1	23.88	0-1	1.0
CP-OFDM QPSK	1	1	23.70	0-1.5	1.5

Note: NR Band n66 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-96
NR Band n66 (AWS) NSA & SA Antenna 3 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.56	25.21	25.48	0	0.0
	1	53	25.57	25.58	25.59		0.0
	1	104	25.55	25.64	25.61		0.0
	50	0	25.54	25.67	25.66	0-0.5	0.0
	50	28	25.62	25.68	25.60	0	0.0
	50	56	25.56	25.53	25.63	0-0.5	0.0
	100	0	25.63	25.62	25.62		0.0
DFT-s-OFDM QPSK	1	1	25.49	25.57	25.49	0	0.0
	1	53	25.53	25.60	25.56		0.0
	1	104	25.55	25.59	25.61		0.0
	50	0	25.50	25.65	25.66	0-1	0.0
	50	28	25.60	25.64	25.59	0	0.0
	50	56	25.56	25.53	25.51	0-1	0.0
	100	0	25.61	25.57	25.58		0.0
DFT-s-OFDM 16QAM	1	1	24.22	24.22	24.27	0-1	1.0
CP-OFDM QPSK	1	1	23.99	24.10	24.02	0-1.5	1.5

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Table 9-97
NR Band n66 (AWS) NSA & SA Antenna 3 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	349000 (1745 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.52	25.51	25.44	0	0.0
	1	40	25.51	25.55	25.50		0.0
	1	77	25.61	25.56	25.56		0.0
	36	0	25.59	25.67	25.63	0-0.5	0.0
	36	22	25.64	25.66	25.64	0	0.0
	36	43	25.58	25.60	25.61	0-0.5	0.0
	75	0	25.62	25.61	25.59		0.0
DFT-s-OFDM QPSK	1	1	25.48	25.46	25.40	0	0.0
	1	40	25.46	25.50	25.52		0.0
	1	77	25.54	25.47	25.53		0.0
	36	0	25.60	25.67	25.66	0-1	0.0
	36	22	25.62	25.63	25.60	0	0.0
	36	43	25.57	25.58	25.62	0-1	0.0
	75	0	25.59	25.60	25.61		0.0
DFT-s-OFDM 16QAM	1	1	24.22	24.21	24.11	0-1	1.0
CP-OFDM QPSK	1	1	23.99	24.02	23.89	0-1.5	1.5

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Table 9-98
NR Band n66 (AWS) NSA & SA Antenna 3 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343000 (1715 MHz)	349000 (1745 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.49	25.49	25.48	0	0.0
	1	26	25.59	25.61	25.51		0.0
	1	50	25.53	25.57	25.59		0.0
	25	0	25.58	25.64	25.64	0-0.5	0.0
	25	14	25.61	25.64	25.60	0	0.0
	25	27	25.54	25.55	25.60	0-0.5	0.0
	50	0	25.63	25.66	25.62		0.0
DFT-s-OFDM QPSK	1	1	25.52	25.51	25.50	0	0.0
	1	26	25.58	25.59	25.53		0.0
	1	50	25.49	25.53	25.60		0.0
	25	0	25.54	25.61	25.64	0-1	0.0
	25	14	25.60	25.65	25.61	0	0.0
	25	27	25.49	25.48	25.57	0-1	0.0
	50	0	25.60	25.62	25.62		0.0
DFT-s-OFDM 16QAM	1	1	24.21	24.16	24.23	0-1	1.0
CP-OFDM QPSK	1	1	24.04	24.08	24.00	0-1.5	1.5

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Table 9-99
NR Band n66 (AWS) NSA & SA Antenna 3 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	349000 (1745 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.51	25.51	25.49	0	0.0
	1	13	25.56	25.53	25.53		0.0
	1	23	25.52	25.56	25.51		0.0
	12	0	25.61	25.59	25.56	0-0.5	0.0
	12	7	25.64	25.55	25.54	0	0.0
	12	13	25.65	25.52	25.61	0-0.5	0.0
	25	0	25.60	25.60	25.59		0.0
DFT-s-OFDM QPSK	1	1	25.46	25.49	25.54	0	0.0
	1	13	25.50	25.50	25.59		0.0
	1	23	25.41	25.43	25.53		0.0
	12	0	25.59	25.59	25.55	0-1	0.0
	12	7	25.61	25.56	25.57	0	0.0
	12	13	25.58	25.52	25.60	0-1	0.0
	25	0	25.56	25.54	25.56		0.0
DFT-s-OFDM 16QAM	1	1	24.29	24.29	24.21	0-1	1.0
CP-OFDM QPSK	1	1	24.12	24.11	24.09	0-1.5	1.5

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Table 9-100
NR Band n66 (AWS) NSA & SA Antenna 3 Reduced Conducted Powers - 40 MHz Bandwidth

NR Band n66 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	349000 (1745 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.87	0	0.0
	1	108	23.35		0.0
	1	214	22.88		0.0
	108	0	23.30	0-0.5	0.0
	108	54	23.30	0	0.0
	108	108	23.29	0-0.5	0.0
	216	0	23.25		0.0
DFT-s-OFDM QPSK	1	1	22.78	0	0.0
	1	108	**23.24**		0.0
	1	214	22.80		0.0
	108	0	23.29	0-1	0.0
	108	54	**23.34**	0	0.0
	108	108	23.28	0-1	0.0
	216	0	23.23		0.0
DFT-s-OFDM 16QAM	1	1	22.60	0-1	0.0
CP-OFDM QPSK	1	1	22.89	0-1.5	0.0

Note: NR Band n66 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-101
NR Band n66 (AWS) NSA & SA Antenna 3 Reduced Conducted Powers - 20 MHz Bandwidth

NR Band n66 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	344000 (1720 MHz)	349000 (1745 MHz)	354000 (1770 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	23.36	23.30	23.28	0	0.0
	1	53	23.35	23.37	23.37		0.0
	1	104	23.34	23.31	23.39		0.0
	50	0	23.30	23.38	23.36	0-0.5	0.0
	50	28	23.38	23.39	23.34	0	0.0
	50	56	23.28	23.25	23.25	0-0.5	0.0
	100	0	23.37	23.34	23.35		0.0
DFT-s-OFDM QPSK	1	1	23.21	23.22	23.17	0	0.0
	1	53	23.28	23.25	23.24		0.0
	1	104	23.29	23.38	23.33		0.0
	50	0	23.30	23.39	23.41	0-1	0.0
	50	28	23.37	23.40	23.37	0	0.0
	50	56	23.31	23.26	23.22	0-1	0.0
	100	0	23.40	23.36	23.35		0.0
DFT-s-OFDM 16QAM	1	1	22.96	23.01	22.99	0-1	0.0
CP-OFDM QPSK	1	1	23.31	23.35	23.28	0-1.5	0.0

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Table 9-102
NR Band n66 (AWS) NSA & SA Antenna 3 Reduced Conducted Powers - 15 MHz Bandwidth

NR Band n66 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343500 (1717.5 MHz)	349000 (1745 MHz)	354500 (1772.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	23.33	23.29	23.28	0	0.0
	1	40	23.30	23.44	23.39		0.0
	1	77	23.34	23.36	23.32		0.0
	36	0	23.41	23.43	23.44	0-0.5	0.0
	36	22	23.38	23.42	23.39	0	0.0
	36	43	23.35	23.33	23.29	0-0.5	0.0
	75	0	23.34	23.38	23.33		0.0
DFT-s-OFDM QPSK	1	1	23.21	23.18	23.12	0	0.0
	1	40	23.23	23.30	23.30		0.0
	1	77	23.25	23.26	23.27		0.0
	36	0	23.38	23.42	23.41	0-1	0.0
	36	22	23.35	23.41	23.30	0	0.0
	36	43	23.36	23.33	23.34	0-1	0.0
	75	0	23.37	23.37	23.35		0.0
DFT-s-OFDM 16QAM	1	1	22.97	22.94	22.89	0-1	0.0
CP-OFDM QPSK	1	1	23.22	23.30	23.20	0-1.5	0.0

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Table 9-103
NR Band n66 (AWS) NSA & SA Antenna 3 Reduced Conducted Powers - 10 MHz Bandwidth

NR Band n66 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	343000 (1715 MHz)	349000 (1745 MHz)	355000 (1775 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	23.30	23.33	23.26	0	0.0
	1	26	23.39	23.41	23.34		0.0
	1	50	23.34	23.38	23.35		0.0
	25	0	23.33	23.38	23.36	0-0.5	0.0
	25	14	23.35	23.40	23.34	0	0.0
	25	27	23.29	23.29	23.27	0-0.5	0.0
	50	0	23.36	23.42	23.34		0.0
DFT-s-OFDM QPSK	1	1	23.19	23.22	23.16	0	0.0
	1	26	23.29	23.29	23.33		0.0
	1	50	23.22	23.33	23.30		0.0
	25	0	23.33	23.38	23.38	0-1	0.0
	25	14	23.37	23.41	23.36	0	0.0
	25	27	23.20	23.29	23.35	0-1	0.0
	50	0	23.34	23.39	23.37		0.0
DFT-s-OFDM 16QAM	1	1	22.96	23.00	22.96	0-1	0.0
CP-OFDM QPSK	1	1	23.34	23.26	23.31	0-1.5	0.0

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Table 9-104
NR Band n66 (AWS) NSA & SA Antenna 3 Reduced Conducted Powers - 5 MHz Bandwidth

NR Band n66 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	342500 (1712.5 MHz)	349000 (1745 MHz)	355500 (1777.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	23.41	23.39	23.26	0	0.0
	1	13	23.31	23.40	23.40		0.0
	1	23	23.34	23.44	23.39		0.0
	12	0	23.43	23.43	23.37	0-0.5	0.0
	12	7	23.38	23.38	23.36	0	0.0
	12	13	23.40	23.32	23.43	0-0.5	0.0
	25	0	23.39	23.34	23.35		0.0
DFT-s-OFDM QPSK	1	1	23.23	23.26	23.30	0	0.0
	1	13	23.20	23.27	23.36		0.0
	1	23	23.24	23.24	23.27		0.0
	12	0	23.34	23.40	23.33	0-1	0.0
	12	7	23.36	23.35	23.34	0	0.0
	12	13	23.37	23.31	23.41	0-1	0.0
	25	0	23.38	23.35	23.35		0.0
DFT-s-OFDM 16QAM	1	1	23.05	23.02	23.00	0-1	0.0
CP-OFDM QPSK	1	1	23.37	23.35	23.33	0-1.5	0.0

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9.5.3 NR Band n25 (PCS)

Table 9-105
NR Band n25 (PCS) SA Antenna 2 Maximum Conducted Powers - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM $\pi/2$ BPSK	1	1	24.45	0	0.0
	1	108	25.05		0.0
	1	214	24.58		0.0
	108	0	24.78	0-0.5	0.0
	108	54	24.95	0	0.0
	108	108	24.93	0-0.5	0.0
	216	0	24.85		0.0
DFT-s-OFDM QPSK	1	1	24.37	0	0.0
	1	108	**24.96**		0.0
	1	214	24.57		0.0
	108	0	24.81	0-1	0.0
	108	54	**24.93**	0	0.0
	108	108	24.87	0-1	0.0
	216	0	24.82		0.0
DFT-s-OFDM 16QAM	1	1	23.25	0-1	1.0
CP-OFDM QPSK	1	1	23.03	0-1.5	1.5

Note: NR Band n25 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-106
NR Band n25 (PCS) SA Maximum Conducted Powers - 30 MHz Bandwidth

NR Band n25 30 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.55	0	0.0
	1	80	24.94		0.0
	1	158	24.60		0.0
	80	0	24.88	0-0.5	0.0
	80	40	24.95	0	0.0
	80	80	24.97	0-0.5	0.0
	160	0	24.94		0.0
DFT-s-OFDM QPSK	1	1	24.53	0	0.0
	1	80	24.97		0.0
	1	158	24.56		0.0
	80	0	24.83	0-1	0.0
	80	40	24.93	0	0.0
	80	80	24.94	0-1	0.0
	160	0	24.90		0.0
DFT-s-OFDM 16QAM	1	1	23.33	0-1	1.0
CP-OFDM QPSK	1	1	23.01	0-1.5	1.5

Note: NR Band n25 at 30 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-107
NR Band n25 (PCS) SA Antenna 2 Maximum Conducted Powers - 25 MHz Bandwidth

NR Band n25 25 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.77	0	0.0
	1	67	24.94		0.0
	1	131	24.85		0.0
	64	0	24.89	0-0.5	0.0
	64	35	24.93	0	0.0
	64	69	24.94	0-0.5	0.0
	128	0	24.94		0.0
DFT-s-OFDM QPSK	1	1	24.72	0	0.0
	1	67	24.93		0.0
	1	131	24.81		0.0
	64	0	24.87	0-1	0.0
	64	35	24.92	0	0.0
	64	69	24.93	0-1	0.0
	128	0	24.88		0.0
DFT-s-OFDM 16QAM	1	1	23.49	0-1	1.0
CP-OFDM QPSK	1	1	23.22	0-1.5	1.5

Note: NR Band n25 at 25 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-108
NR Band n25 (PCS) SA Antenna 2 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n25 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376500 (1882.5 MHz)	381000 (1905 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.83	24.89	24.83	0	0.0
	1	53	24.94	24.99	25.04		0.0
	1	104	24.92	24.88	24.95		0.0
	50	0	24.94	24.95	25.00	0-0.5	0.0
	50	28	24.92	24.94	25.01	0	0.0
	50	56	24.96	25.00	24.90	0-0.5	0.0
	100	0	24.91	24.97	25.05		0.0
DFT-s-OFDM QPSK	1	1	24.82	24.82	24.83	0	0.0
	1	53	24.90	24.93	24.99		0.0
	1	104	24.92	24.80	24.95		0.0
	50	0	24.89	24.96	25.04	0-1	0.0
	50	28	24.92	24.94	25.03	0	0.0
	50	56	25.00	24.98	24.90	0-1	0.0
	100	0	24.91	24.94	25.02		0.0
DFT-s-OFDM 16QAM	1	1	23.61	23.54	23.52	0-1	1.0
CP-OFDM QPSK	1	1	23.24	23.29	23.23	0-1.5	1.5

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Table 9-109
NR Band n25 (PCS) SA Antenna 2 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n25 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376500 (1882.5 MHz)	381500 (1907.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.75	24.80	24.84	0	0.0
	1	40	24.88	24.89	24.95		0.0
	1	77	24.83	24.81	24.91		0.0
	36	0	24.96	24.92	25.06	0-0.5	0.0
	36	22	24.91	24.95	24.97	0	0.0
	36	43	24.95	24.96	25.08	0-0.5	0.0
	75	0	24.97	24.88	25.10		0.0
DFT-s-OFDM QPSK	1	1	24.77	24.80	24.80	0	0.0
	1	40	24.82	24.91	24.99		0.0
	1	77	24.86	24.80	24.92		0.0
	36	0	24.94	24.86	25.07	0-1	0.0
	36	22	24.96	24.93	24.98	0	0.0
	36	43	24.90	24.89	24.95	0-1	0.0
	75	0	24.92	24.98	25.06		0.0
DFT-s-OFDM 16QAM	1	1	23.57	23.57	23.60	0-1	1.0
CP-OFDM QPSK	1	1	23.29	23.26	23.31	0-1.5	1.5

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Table 9-110
NR Band n25 (PCS) SA Antenna 2 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n25 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376500 (1882.5 MHz)	382000 (1910 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.89	24.77	24.85	0	0.0
	1	26	25.08	24.96	25.06		0.0
	1	50	24.99	24.91	24.98		0.0
	25	0	25.01	24.92	25.10	0-0.5	0.0
	25	14	24.97	25.04	25.05	0	0.0
	25	27	25.00	24.99	25.11	0-0.5	0.0
	50	0	24.98	25.02	25.08		0.0
DFT-s-OFDM QPSK	1	1	24.85	24.78	24.84	0	0.0
	1	26	25.00	25.00	25.01		0.0
	1	50	24.91	24.93	24.92		0.0
	25	0	24.95	24.92	25.01	0-1	0.0
	25	14	24.99	24.99	25.03	0	0.0
	25	27	25.02	24.96	25.12	0-1	0.0
	50	0	24.97	24.97	25.06		0.0
DFT-s-OFDM 16QAM	1	1	23.57	23.47	23.52	0-1	1.0
CP-OFDM QPSK	1	1	23.30	23.29	23.41	0-1.5	1.5

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Table 9-111
NR Band n25 (PCS) SA Antenna 2 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n25 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376500 (1882.5 MHz)	382500 (1912.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	24.87	24.91	24.92	0	0.0
	1	13	24.96	24.94	24.99		0.0
	1	23	24.99	24.95	24.91		0.0
	12	0	25.02	25.01	25.02	0-0.5	0.0
	12	7	24.96	24.97	25.03	0	0.0
	12	13	24.99	24.96	25.09	0-0.5	0.0
	25	0	24.96	24.98	25.00		0.0
DFT-s-OFDM QPSK	1	1	24.88	24.90	24.96	0	0.0
	1	13	24.90	24.93	25.00		0.0
	1	23	24.96	24.91	24.99		0.0
	12	0	24.99	24.98	24.97	0-1	0.0
	12	7	24.97	24.96	25.06	0	0.0
	12	13	24.94	24.93	25.04	0-1	0.0
	25	0	24.93	24.95	24.98		0.0
DFT-s-OFDM 16QAM	1	1	23.68	23.67	23.65	0-1	1.0
CP-OFDM QPSK	1	1	23.37	23.33	23.44	0-1.5	1.5

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Table 9-112
NR Band n25 (PCS) SA Antenna 2 Reduced Conducted Powers - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.33	0	0.0
	1	108	22.90		0.0
	1	214	22.49		0.0
	108	0	22.86	0-0.5	0.0
	108	54	22.93	0	0.0
	108	108	22.96	0-0.5	0.0
	216	0	22.92		0.0
DFT-s-OFDM QPSK	1	1	22.28	0	0.0
	1	108	**22.91**		0.0
	1	214	22.48		0.0
	108	0	22.84	0-1	0.0
	108	54	**23.00**	0	0.0
	108	108	22.89	0-1	0.0
	216	0	22.90		0.0
DFT-s-OFDM 16QAM	1	1	22.19	0-1	0.0
CP-OFDM QPSK	1	1	22.43	0-1.5	0.0

Note: NR Band n25 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-113
NR Band n25 (PCS) SA Antenna 2 Reduced Conducted Powers - 30 MHz Bandwidth

NR Band n25 30 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.41	0	0.0
	1	80	22.74		0.0
	1	158	22.47		0.0
	80	0	22.77	0-0.5	0.0
	80	40	22.83	0	0.0
	80	80	22.83	0-0.5	0.0
	160	0	22.80		0.0
DFT-s-OFDM QPSK	1	1	22.37	0	0.0
	1	80	22.73		0.0
	1	158	22.42		0.0
	80	0	22.77	0-1	0.0
	80	40	22.84	0	0.0
	80	80	22.85	0-1	0.0
	160	0	22.77		0.0
DFT-s-OFDM 16QAM	1	1	22.25	0-1	0.0
CP-OFDM QPSK	1	1	22.56	0-1.5	0.0

Note: NR Band n25 at 30 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-114
NR Band n25 (PCS) SA Antenna 2 Reduced Conducted Powers - 25 MHz Bandwidth

NR Band n25 25 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.61	0	0.0
	1	67	22.82		0.0
	1	131	22.75		0.0
	64	0	22.77	0-0.5	0.0
	64	35	22.86	0	0.0
	64	69	22.83	0-0.5	0.0
	128	0	22.85		0.0
DFT-s-OFDM QPSK	1	1	22.51	0	0.0
	1	67	22.83		0.0
	1	131	22.69		0.0
	64	0	22.77	0-1	0.0
	64	35	22.86	0	0.0
	64	69	22.82	0-1	0.0
	128	0	22.84		0.0
DFT-s-OFDM 16QAM	1	1	22.60	0-1	0.0
CP-OFDM QPSK	1	1	22.74	0-1.5	0.0

Note: NR Band n25 at 25 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-115
NR Band n25 (PCS) SA Antenna 2 Reduced Conducted Powers - 20 MHz Bandwidth

NR Band n25 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376500 (1882.5 MHz)	381000 (1905 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.69	22.66	22.63	0	0.0
	1	53	22.76	22.80	22.78		0.0
	1	104	22.78	22.76	22.85		0.0
	50	0	22.79	22.81	22.94	0-0.5	0.0
	50	28	22.83	22.85	22.90	0	0.0
	50	56	22.80	22.91	22.83	0-0.5	0.0
	100	0	22.81	22.89	22.94		0.0
DFT-s-OFDM QPSK	1	1	22.66	22.67	22.66	0	0.0
	1	53	22.69	22.79	22.76		0.0
	1	104	22.76	22.71	22.75		0.0
	50	0	22.80	22.78	22.89	0-1	0.0
	50	28	22.82	22.85	22.89	0	0.0
	50	56	22.81	22.87	22.80	0-1	0.0
	100	0	22.79	22.88	22.78		0.0
DFT-s-OFDM 16QAM	1	1	22.57	22.53	22.55	0-1	0.0
CP-OFDM QPSK	1	1	22.82	22.75	22.80	0-1.5	0.0

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Table 9-116
NR Band n25 (PCS) SA Antenna 2 Reduced Conducted Powers - 15 MHz Bandwidth

NR Band n25 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376500 (1882.5 MHz)	381500 (1907.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.62	22.59	22.69	0	0.0
	1	40	22.73	22.72	22.78		0.0
	1	77	22.61	22.68	22.77		0.0
	36	0	22.83	22.73	22.91	0-0.5	0.0
	36	22	22.86	22.83	22.89	0	0.0
	36	43	22.75	22.78	22.92	0-0.5	0.0
	75	0	22.87	22.80	22.98		0.0
DFT-s-OFDM QPSK	1	1	22.62	22.63	22.66	0	0.0
	1	40	22.69	22.74	22.77		0.0
	1	77	22.63	22.70	22.71		0.0
	36	0	22.84	22.74	22.94	0-1	0.0
	36	22	22.80	22.75	22.85	0	0.0
	36	43	22.84	22.84	22.85	0-1	0.0
	75	0	22.85	22.80	22.97		0.0
DFT-s-OFDM 16QAM	1	1	22.53	22.51	22.53	0-1	0.0
CP-OFDM QPSK	1	1	22.71	22.71	22.75	0-1.5	0.0

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Table 9-117
NR Band n25 (PCS) SA Antenna 2 Reduced Conducted Powers - 10 MHz Bandwidth

NR Band n25 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376500 (1882.5 MHz)	382000 (1910 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.66	22.64	22.72	0	0.0
	1	26	22.76	22.78	22.85		0.0
	1	50	22.71	22.75	22.83		0.0
	25	0	22.82	22.77	22.94	0-0.5	0.0
	25	14	22.84	22.86	22.95	0	0.0
	25	27	22.82	22.83	22.93	0-0.5	0.0
	50	0	22.83	22.82	22.91		0.0
DFT-s-OFDM QPSK	1	1	22.71	22.64	22.72	0	0.0
	1	26	22.72	22.75	22.80		0.0
	1	50	22.72	22.70	22.79		0.0
	25	0	22.86	22.77	22.96	0-1	0.0
	25	14	22.82	22.83	22.93	0	0.0
	25	27	22.88	22.86	22.92	0-1	0.0
	50	0	22.81	22.87	22.91		0.0
DFT-s-OFDM 16QAM	1	1	22.52	22.50	22.59	0-1	0.0
CP-OFDM QPSK	1	1	22.81	22.76	22.92	0-1.5	0.0

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Table 9-118
NR Band n25 (PCS) SA Antenna 2 Reduced Conducted Powers - 5 MHz Bandwidth

NR Band n25 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376500 (1882.5 MHz)	382500 (1912.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.76	22.77	22.75	0	0.0
	1	13	22.77	22.69	22.82		0.0
	1	23	22.84	22.70	22.93		0.0
	12	0	22.82	22.80	22.88	0-0.5	0.0
	12	7	22.85	22.83	22.90	0	0.0
	12	13	22.86	22.81	22.95	0-0.5	0.0
	25	0	22.82	22.84	22.88		0.0
DFT-s-OFDM QPSK	1	1	22.76	22.75	22.74	0	0.0
	1	13	22.75	22.73	22.78		0.0
	1	23	22.72	22.74	22.81		0.0
	12	0	22.86	22.79	22.89	0-1	0.0
	12	7	22.84	22.77	22.91	0	0.0
	12	13	22.81	22.79	22.93	0-1	0.0
	25	0	22.80	22.84	22.88		0.0
DFT-s-OFDM 16QAM	1	1	22.64	22.66	22.72	0-1	0.0
CP-OFDM QPSK	1	1	22.92	22.90	22.88	0-1.5	0.0

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Table 9-119
NR Band n25 (PCS) NSA & SA Antenna 3 Maximum Conducted Powers - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	24.99	0	0.0
	1	108	25.58		0.0
	1	214	25.02		0.0
	108	0	25.44	0-0.5	0.0
	108	54	25.54	0	0.0
	108	108	25.37	0-0.5	0.0
	216	0	25.37		0.0
DFT-s-OFDM QPSK	1	1	24.99	0	0.0
	1	108	**25.63**		0.0
	1	214	25.09		0.0
	108	0	25.42	0-1	0.0
	108	54	**25.58**	0	0.0
	108	108	25.41	0-1	0.0
	216	0	25.38		0.0
DFT-s-OFDM 16QAM	1	1	23.85	0-1	1.0
CP-OFDM QPSK	1	1	23.66	0-1.5	1.5

Note: NR Band n25 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-120
NR Band n25 (PCS) NSA & SA Antenna 3 Maximum Conducted Powers - 30 MHz Bandwidth

NR Band n25 30 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	25.22	0	0.0
	1	80	25.50		0.0
	1	158	25.33		0.0
	80	0	25.55	0-0.5	0.0
	80	40	25.57	0	0.0
	80	80	25.46	0-0.5	0.0
	160	0	25.50		0.0
DFT-s-OFDM QPSK	1	1	25.17	0	0.0
	1	80	25.49		0.0
	1	158	25.31		0.0
	80	0	25.54	0-1	0.0
	80	40	25.55	0	0.0
	80	80	25.44	0-1	0.0
	160	0	25.49		0.0
DFT-s-OFDM 16QAM	1	1	23.96	0-1	1.0
CP-OFDM QPSK	1	1	23.77	0-1.5	1.5

Note: NR Band n25 at 30 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-121
NR Band n25 (PCS) NSA & SA Antenna 3 Maximum Conducted Powers - 25 MHz Bandwidth

NR Band n25 25 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	25.49	0	0.0
	1	67	25.57		0.0
	1	131	25.53		0.0
	64	0	25.57	0-0.5	0.0
	64	35	25.58	0	0.0
	64	69	25.51	0-0.5	0.0
	128	0	25.58		0.0
DFT-s-OFDM QPSK	1	1	25.42	0	0.0
	1	67	25.56		0.0
	1	131	25.51		0.0
	64	0	25.55	0-1	0.0
	64	35	25.57	0	0.0
	64	69	25.50	0-1	0.0
	128	0	25.56		0.0
DFT-s-OFDM 16QAM	1	1	24.14	0-1	1.0
CP-OFDM QPSK	1	1	23.98	0-1.5	1.5

Note: NR Band n25 at 25 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-122
NR Band n25 (PCS) NSA & SA Antenna 3 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n25 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376500 (1882.5 MHz)	381000 (1905 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.55	25.50	25.58	0	0.0
	1	53	25.58	25.56	25.67		0.0
	1	104	25.61	25.54	25.62		0.0
	50	0	25.60	25.59	25.70	0-0.5	0.0
	50	28	25.61	25.60	25.69	0	0.0
	50	56	25.46	25.48	25.50	0-0.5	0.0
	100	0	25.62	25.60	25.69		0.0
DFT-s-OFDM QPSK	1	1	25.53	25.53	25.58	0	0.0
	1	53	25.49	25.55	25.65		0.0
	1	104	25.54	25.53	25.56		0.0
	50	0	25.58	25.57	25.70	0-1	0.0
	50	28	25.57	25.63	25.67	0	0.0
	50	56	25.46	25.48	25.48	0-1	0.0
	100	0	25.56	25.56	25.64		0.0
DFT-s-OFDM 16QAM	1	1	24.32	24.21	24.32	0-1	1.0
CP-OFDM QPSK	1	1	24.01	23.99	24.12	0-1.5	1.5

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Table 9-123
NR Band n25 (PCS) NSA & SA Antenna 3 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n25 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376500 (1882.5 MHz)	381500 (1907.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.44	25.41	25.47	0	0.0
	1	40	25.48	25.55	25.33		0.0
	1	77	25.46	25.44	25.49		0.0
	36	0	25.59	25.62	25.62	0-0.5	0.0
	36	22	25.57	25.64	25.61	0	0.0
	36	43	25.51	25.58	25.55	0-0.5	0.0
	75	0	25.58	25.59	25.68		0.0
DFT-s-OFDM QPSK	1	1	25.39	25.21	25.44	0	0.0
	1	40	25.47	25.50	25.51		0.0
	1	77	25.40	25.37	25.53		0.0
	36	0	25.57	25.56	25.68	0-1	0.0
	36	22	25.59	25.58	25.67	0	0.0
	36	43	25.54	25.54	25.53	0-1	0.0
	75	0	25.55	25.51	25.61		0.0
DFT-s-OFDM 16QAM	1	1	24.14	24.07	24.20	0-1	1.0
CP-OFDM QPSK	1	1	24.00	23.95	23.99	0-1.5	1.5

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Table 9-124
NR Band n25 (PCS) NSA & SA Antenna 3 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n25 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376500 (1882.5 MHz)	382000 (1910 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.46	25.42	25.52	0	0.0
	1	26	25.55	25.51	25.66		0.0
	1	50	25.51	25.56	25.57		0.0
	25	0	25.58	25.59	25.64	0-0.5	0.0
	25	14	25.59	25.62	25.70	0	0.0
	25	27	25.46	25.47	25.50	0-0.5	0.0
	50	0	25.62	25.63	25.69		0.0
DFT-s-OFDM QPSK	1	1	25.40	25.48	25.54	0	0.0
	1	26	25.47	25.51	25.67		0.0
	1	50	25.49	25.53	25.49		0.0
	25	0	25.56	25.55	25.65	0-1	0.0
	25	14	25.57	25.61	25.68	0	0.0
	25	27	25.40	25.53	25.49	0-1	0.0
	50	0	25.57	25.59	25.66		0.0
DFT-s-OFDM 16QAM	1	1	24.21	24.19	24.27	0-1	1.0
CP-OFDM QPSK	1	1	24.01	23.94	24.02	0-1.5	1.5

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Table 9-125
NR Band n25 (PCS) NSA & SA Antenna 3 Maximum Conducted Powers - 5 MHz Bandwidth

NR Band n25 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376500 (1882.5 MHz)	382500 (1912.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	25.51	25.48	25.48	0	0.0
	1	13	25.55	25.49	25.47		0.0
	1	23	25.46	25.57	25.56		0.0
	12	0	25.61	25.60	25.67	0-0.5	0.0
	12	7	25.60	25.53	25.58	0	0.0
	12	13	25.55	25.58	25.55	0-0.5	0.0
	25	0	25.64	25.63	25.67		0.0
DFT-s-OFDM QPSK	1	1	25.53	25.54	25.59	0	0.0
	1	13	25.45	25.51	25.58		0.0
	1	23	25.44	25.52	25.52		0.0
	12	0	25.63	25.62	25.70	0-1	0.0
	12	7	25.60	25.57	25.61	0	0.0
	12	13	25.53	25.56	25.59	0-1	0.0
	25	0	25.58	25.57	25.66		0.0
DFT-s-OFDM 16QAM	1	1	24.29	24.24	24.40	0-1	1.0
CP-OFDM QPSK	1	1	24.13	24.10	24.20	0-1.5	1.5

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Table 9-126
NR Band n25 (PCS) NSA & SA Antenna 3 Reduced Conducted Powers - 40 MHz Bandwidth

NR Band n25 40 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz)		
			Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.81	0	0.0
	1	108	23.27		0.0
	1	214	22.94		0.0
	108	0	23.34	0-0.5	0.0
	108	54	23.33	0	0.0
	108	108	23.13	0-0.5	0.0
	216	0	23.26		0.0
DFT-s-OFDM QPSK	1	1	22.76	0	0.0
	1	108	**23.23**		0.0
	1	214	22.86		0.0
	108	0	**23.35**	0-1	0.0
	108	54	23.33	0	0.0
	108	108	23.16	0-1	0.0
	216	0	23.22		0.0
DFT-s-OFDM 16QAM	1	1	22.56	0-1	0.0
CP-OFDM QPSK	1	1	22.91	0-1.5	0.0

Note: NR Band n25 at 40 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-127
NR Band n25 (PCS) NSA & SA Antenna 3 Reduced Conducted Powers - 30 MHz Bandwidth

NR Band n25 30 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.49	0	0.0
	1	80	22.81		0.0
	1	158	22.53		0.0
	80	0	22.80	0-0.5	0.0
	80	40	22.82	0	0.0
	80	80	22.74	0-0.5	0.0
	160	0	22.75		0.0
DFT-s-OFDM QPSK	1	1	22.44	0	0.0
	1	80	22.77		0.0
	1	158	22.52		0.0
	80	0	22.81	0-1	0.0
	80	40	22.83	0	0.0
	80	80	22.74	0-1	0.0
	160	0	22.76		0.0
DFT-s-OFDM 16QAM	1	1	22.28	0-1	0.0
CP-OFDM QPSK	1	1	22.54	0-1.5	0.0

Note: NR Band n25 at 30 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-128
NR Band n25 (PCS) NSA & SA Antenna 3 Reduced Conducted Powers - 25 MHz Bandwidth

NR Band n25 25 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	376500 (1882.5 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	22.71	0	0.0
	1	67	22.84		0.0
	1	131	22.79		0.0
	64	0	22.78	0-0.5	0.0
	64	35	22.82	0	0.0
	64	69	22.73	0-0.5	0.0
	128	0	22.81		0.0
DFT-s-OFDM QPSK	1	1	22.63	0	0.0
	1	67	22.77		0.0
	1	131	22.75		0.0
	64	0	22.81	0-1	0.0
	64	35	22.84	0	0.0
	64	69	22.79	0-1	0.0
	128	0	22.78		0.0
DFT-s-OFDM 16QAM	1	1	22.33	0-1	0.0
CP-OFDM QPSK	1	1	22.71	0-1.5	0.0

Note: NR Band n25 at 25 MHz bandwidth does not support three non-overlapping channels. Per KDB Publication 941225 D05v02, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-129
NR Band n25 (PCS) NSA & SA Antenna 3 Reduced Conducted Powers - 20 MHz Bandwidth

NR Band n25 20 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	372000 (1860 MHz)	376500 (1882.5 MHz)	381000 (1905 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.83	22.70	22.84	0	0.0
	1	53	22.79	22.83	22.93		0.0
	1	104	22.85	22.80	22.82		0.0
	50	0	22.84	22.83	22.96	0-0.5	0.0
	50	28	22.82	22.89	22.92	0	0.0
	50	56	22.71	22.69	22.74	0-0.5	0.0
	100	0	22.84	22.82	22.88		0.0
DFT-s-OFDM QPSK	1	1	22.69	22.63	22.77	0	0.0
	1	53	22.73	22.76	22.90		0.0
	1	104	22.81	22.70	22.83		0.0
	50	0	22.82	22.83	22.97	0-1	0.0
	50	28	22.81	22.86	22.93	0	0.0
	50	56	22.70	22.75	22.76	0-1	0.0
	100	0	22.85	22.84	22.92		0.0
DFT-s-OFDM 16QAM	1	1	22.53	22.52	22.54	0-1	0.0
CP-OFDM QPSK	1	1	22.88	22.79	22.92	0-1.5	0.0

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Table 9-130
NR Band n25 (PCS) NSA & SA Antenna 3 Reduced Conducted Powers - 15 MHz Bandwidth

NR Band n25 15 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371500 (1857.5 MHz)	376500 (1882.5 MHz)	381500 (1907.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.68	22.64	22.78	0	0.0
	1	40	22.77	22.72	22.79		0.0
	1	77	22.71	22.69	22.81		0.0
	36	0	22.81	22.86	22.88	0-0.5	0.0
	36	22	22.82	22.86	22.94	0	0.0
	36	43	22.77	22.81	22.86	0-0.5	0.0
	75	0	22.80	22.77	22.88		0.0
DFT-s-OFDM QPSK	1	1	22.72	22.68	22.74	0	0.0
	1	40	22.76	22.83	22.79		0.0
	1	77	22.66	22.66	22.77		0.0
	36	0	22.80	22.86	22.96	0-1	0.0
	36	22	22.85	22.91	22.97	0	0.0
	36	43	22.78	22.84	22.77	0-1	0.0
	75	0	22.85	22.82	22.90		0.0
DFT-s-OFDM 16QAM	1	1	22.43	22.37	22.55	0-1	0.0
CP-OFDM QPSK	1	1	22.78	22.70	22.80	0-1.5	0.0

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Table 9-131
NR Band n25 (PCS) NSA & SA Antenna 3 Reduced Conducted Powers - 10 MHz Bandwidth

NR Band n25 10 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	371000 (1855 MHz)	376500 (1882.5 MHz)	382000 (1910 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.72	22.69	22.79	0	0.0
	1	26	22.80	22.86	22.90		0.0
	1	50	22.73	22.74	22.84		0.0
	25	0	22.80	22.80	22.89	0-0.5	0.0
	25	14	22.82	22.82	22.93	0	0.0
	25	27	22.71	22.72	22.77	0-0.5	0.0
	50	0	22.82	22.84	22.91		0.0
DFT-s-OFDM QPSK	1	1	22.71	22.70	22.78	0	0.0
	1	26	22.69	22.77	22.91		0.0
	1	50	22.76	22.83	22.93		0.0
	25	0	22.81	22.85	22.95	0-1	0.0
	25	14	22.83	22.84	22.91	0	0.0
	25	27	22.69	22.75	22.80	0-1	0.0
	50	0	22.83	22.86	22.94		0.0
DFT-s-OFDM 16QAM	1	1	22.54	22.45	22.52	0-1	0.0
CP-OFDM QPSK	1	1	22.78	22.66	22.86	0-1.5	0.0

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Table 9-132
NR Band n25 (PCS) NSA & SA Antenna 3 Reduced Conducted Powers - 5 MHz Bandwidth

NR Band n25 5 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	370500 (1852.5 MHz)	376500 (1882.5 MHz)	382500 (1912.5 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	22.77	22.81	22.83	0	0.0
	1	13	22.78	22.84	22.76		0.0
	1	23	22.76	22.79	22.86		0.0
	12	0	22.84	22.83	22.97	0-0.5	0.0
	12	7	22.86	22.84	22.88	0	0.0
	12	13	22.81	22.86	22.83	0-0.5	0.0
	25	0	22.84	22.84	22.89		0.0
DFT-s-OFDM QPSK	1	1	22.74	22.73	22.80	0	0.0
	1	13	22.75	22.73	22.79		0.0
	1	23	22.65	22.70	22.85		0.0
	12	0	22.86	22.82	22.91	0-1	0.0
	12	7	22.81	22.78	22.85	0	0.0
	12	13	22.77	22.80	22.80	0-1	0.0
	25	0	22.84	22.84	22.89		0.0
DFT-s-OFDM 16QAM	1	1	22.58	22.45	22.63	0-1	0.0
CP-OFDM QPSK	1	1	22.87	22.86	22.93	0-1.5	0.0

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9.5.4 NR Band n41

Table 9-133
NR Band n41 PC2 Maximum Conducted Powers - 100 MHz Bandwidth

NR Band n41 100 MHz Bandwidth					
			Channel	MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	518598 (2592.99 MHz) Conducted Power [dBm]		
DFT-s-OFDM π/2 BPSK	1	1	26.09	0	0.0
	1	137	26.92		0.0
	1	271	25.98		0.0
	135	0	26.35	0-0.5	0.5
	135	69	27.13	0	0.0
	135	138	26.27	0-0.5	0.5
	270	0	26.39		0.5
DFT-s-OFDM QPSK	1	1	26.32	0	0.0
	1	137	**27.19**		0.0
	1	271	26.23		0.0
	135	0	25.37	0-1	1.0
	135	69	**27.10**	0	0.0
	135	138	25.22	0-1	1.0
	270	0	25.34		1.0
DFT-s-OFDM 16QAM	1	1	24.95	0-1	1.0
CP-OFDM QPSK	1	1	24.83	0-1.5	1.5

Note: NR Band n41 at 100 MHz bandwidth does not support non-overlapping channels. Per FCC Guidance, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

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Table 9-134
NR Band n41 PC2 Maximum Conducted Powers - 90 MHz Bandwidth

NR Band n41 90 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	508200 (2541 MHz)	528996 (2644.98 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM π/2 BPSK	1	1	26.27	26.16	0	0.0
	1	123	26.82	26.53		0.0
	1	243	26.37	26.65		0.0
	120	0	26.34	26.33	0-0.5	0.5
	120	63	26.94	26.88	0	0.0
	120	125	26.36	26.25	0-0.5	0.5
	243	0	26.33	26.31		0.5
DFT-s-OFDM QPSK	1	1	26.34	26.38	0	0.0
	1	123	27.13	26.67		0.0
	1	243	26.51	26.69		0.0
	120	0	25.24	25.35	0-1	1.0
	120	63	26.97	26.82	0	0.0
	120	125	25.25	25.13	0-1	1.0
	243	0	25.24	25.24		1.0
DFT-s-OFDM 16QAM	1	1	25.07	24.98	0-1	1.0
CP-OFDM QPSK	1	1	24.96	24.80	0-1.5	1.5

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Table 9-135
NR Band n41 PC2 Maximum Conducted Powers - 80 MHz Bandwidth

NR Band n41 80 MHz Bandwidth						
			Channel		MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	507204 (2536.02 MHz)	529998 (2649.99 MHz)		
			Conducted Power [dBm]			
DFT-s-OFDM π/2 BPSK	1	1	26.47	26.46	0	0.0
	1	109	26.64	26.63		0.0
	1	215	26.28	26.51		0.0
	108	0	26.43	26.44	0-0.5	0.5
	108	55	26.95	26.80	0	0.0
	108	109	26.35	26.25	0-0.5	0.5
	216	0	26.47	26.46		0.5
DFT-s-OFDM QPSK	1	1	26.62	26.50	0	0.0
	1	109	26.99	26.68		0.0
	1	215	26.72	26.95		0.0
	108	0	25.36	25.37	0-1	1.0
	108	55	27.02	26.81	0	0.0
	108	109	25.42	25.25	0-1	1.0
	216	0	25.39	25.38		1.0
DFT-s-OFDM 16QAM	1	1	25.18	25.32	0-1	1.0
CP-OFDM QPSK	1	1	24.99	25.13	0-1.5	1.5

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Table 9-136
NR Band n41 PC2 Maximum Conducted Powers - 60 MHz Bandwidth

NR Band n41 60 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	505200 (2526 MHz)	518598 (2592.99 MHz)	531996 (2659.98 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	26.43	26.59	26.55	0	0.0
	1	81	26.91	27.16	26.94		0.0
	1	160	26.75	26.70	26.70		0.0
	81	0	26.59	26.57	26.30	0-0.5	0.5
	81	41	27.14	27.17	26.84	0	0.0
	81	81	26.58	26.54	26.38	0-0.5	0.5
	162	0	26.58	26.51	26.32		0.5
DFT-s-OFDM QPSK	1	1	26.82	26.68	26.74	0	0.0
	1	81	27.22	27.14	27.03		0.0
	1	160	26.78	26.93	26.96		0.0
	81	0	25.52	25.64	25.45	0-1	1.0
	81	41	27.17	27.20	26.76	0	0.0
	81	81	25.54	25.63	25.41	0-1	1.0
	162	0	25.42	25.58	25.35		1.0
DFT-s-OFDM 16QAM	1	1	25.60	25.68	25.50	0-1	1.0
CP-OFDM QPSK	1	1	25.42	25.49	25.29	0-1.5	1.5

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Table 9-137
NR Band n41 PC2 Maximum Conducted Powers - 50 MHz Bandwidth

NR Band n41 50 MHz Bandwidth							
			Channel			MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	504204 (2521.02 MHz)	518598 (2592.99 MHz)	532998 (2664.99 MHz)		
			Conducted Power [dBm]				
DFT-s-OFDM π/2 BPSK	1	1	27.17	26.87	26.81	0	0.0
	1	67	26.92	26.91	27.08		0.0
	1	131	26.79	27.00	27.13		0.0
	64	0	26.67	26.64	26.27	0-0.5	0.5
	64	35	27.13	27.26	26.99	0	0.0
	64	69	26.62	26.48	26.48	0-0.5	0.5
	128	0	26.69	26.63	26.42		0.5
DFT-s-OFDM QPSK	1	1	27.33	26.95	26.85	0	0.0
	1	67	27.25	27.27	27.00		0.0
	1	131	27.02	27.23	27.29		0.0
	64	0	25.56	25.61	25.32	0-1	1.0
	64	35	26.97	27.16	26.85	0	0.0
	64	69	25.58	25.59	25.46	0-1	1.0
	128	0	25.62	25.66	25.38		1.0
DFT-s-OFDM 16QAM	1	1	25.68	25.72	25.80	0-1	1.0
CP-OFDM QPSK	1	1	25.22	25.43	25.34	0-1.5	1.5

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Table 9-138
NR Band n41 PC2 Maximum Conducted Powers - 40 MHz Bandwidth

NR Band n41 40 MHz Bandwidth								
			Channel				MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	503202 (2516.01 MHz)	513468 (2567.34 MHz)	523734 (2618.67 MHz)	534000 (2670 MHz)		
			Conducted Power [dBm]					
DFT-s-OFDM π/2 BPSK	1	1	26.88	26.65	26.83	26.54	0	0.0
	1	53	27.18	26.92	26.97	27.05		0.0
	1	104	26.44	26.97	26.90	26.89		0.0
	50	0	26.59	26.47	26.54	26.22	0-0.5	0.5
	50	28	27.08	27.15	27.13	26.86	0	0.0
	50	56	26.41	26.45	26.54	26.44	0-0.5	0.5
	100	0	26.48	26.48	26.59	26.32		0.5
DFT-s-OFDM QPSK	1	1	26.92	26.77	26.94	26.53	0	0.0
	1	53	27.31	27.31	27.33	27.23		0.0
	1	104	26.81	26.94	26.78	26.93		0.0
	50	0	25.55	25.50	25.55	25.33	0-1	1.0
	50	28	27.04	27.10	27.16	26.93	0	0.0
	50	56	25.35	25.38	25.44	25.39	0-1	1.0
	100	0	25.51	25.46	25.62	25.39		1.0
DFT-s-OFDM 16QAM	1	1	25.67	25.44	25.55	25.36	0-1	1.0
CP-OFDM QPSK	1	1	25.02	25.16	25.29	24.84	0-1.5	1.5

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Table 9-139
NR Band n41 PC2 Maximum Conducted Powers - 30 MHz Bandwidth

NR Band n41 30 MHz Bandwidth									
			Channel					MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	502200 (2511 MHz)	510402 (2552.01 MHz)	518598 (2592.99 MHz)	526800 (2634 MHz)	534996 (2674.98 MHz)		
			Conducted Power [dBm]						
DFT-s-OFDM π/2 BPSK	1	1	26.77	26.73	26.94	27.09	26.73	0	0.0
	1	39	27.16	26.97	26.95	26.89	26.82		0.0
	1	76	26.98	26.93	26.92	26.87	27.25		0.0
	36	0	26.69	26.60	26.44	26.63	26.28	0-0.5	0.5
	36	21	27.15	27.18	26.98	27.22	27.04	0	0.0
	36	42	26.55	26.46	26.49	26.43	26.59	0-0.5	0.5
	75	0	26.46	26.38	26.42	26.65	26.48		0.5
DFT-s-OFDM QPSK	1	1	27.11	26.93	27.02	26.98	26.66	0	0.0
	1	39	27.40	27.29	27.28	27.24	27.13		0.0
	1	76	26.94	26.98	27.07	26.69	27.12		0.0
	36	0	25.59	25.55	25.67	25.63	25.40	0-1	1.0
	36	21	27.18	27.05	27.11	27.15	26.97	0	0.0
	36	42	25.52	25.42	25.51	25.45	25.51	0-1	1.0
	75	0	25.54	25.59	25.62	25.57	25.44		1.0
DFT-s-OFDM 16QAM	1	1	25.75	25.84	25.90	25.82	25.45	0-1	1.0
CP-OFDM QPSK	1	1	25.43	25.51	25.39	25.55	25.06	0-1.5	1.5

Table 9-140
NR Band n41 PC2 Maximum Conducted Powers - 20 MHz Bandwidth

NR Band n41 20 MHz Bandwidth									
			Channel					MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	501204 (2506.02 MHz)	509898 (2549.49 MHz)	518598 (2592.99 MHz)	527298 (2636.49 MHz)	535998 (2679.99 MHz)		
			Conducted Power [dBm]						
DFT-s-OFDM π/2 BPSK	1	1	27.12	26.98	27.27	26.80	27.01	0	0.0
	1	26	27.27	26.84	26.85	26.87	27.04		0.0
	1	49	26.86	26.91	26.84	26.78	26.92		0.0
	25	0	26.68	26.57	26.58	26.63	26.47	0-0.5	0.5
	25	13	27.12	27.01	27.12	27.05	27.15	0	0.0
	25	26	26.52	26.47	26.68	26.61	26.57	0-0.5	0.5
	50	0	26.68	26.57	26.67	26.59	26.60		0.5
DFT-s-OFDM QPSK	1	1	27.06	26.94	27.00	26.96	26.84	0	0.0
	1	26	27.25	27.11	27.38	27.26	27.14		0.0
	1	49	27.04	26.93	27.07	26.86	27.33		0.0
	25	0	25.69	25.57	25.63	25.51	25.45	0-1	1.0
	25	13	26.98	26.90	27.15	27.09	27.11	0	0.0
	25	26	25.52	25.57	25.68	25.51	25.58	0-1	1.0
	50	0	25.65	25.51	25.72	25.69	25.56		1.0
DFT-s-OFDM 16QAM	1	1	25.86	25.82	25.97	25.96	25.91	0-1	1.0
CP-OFDM QPSK	1	1	25.41	25.45	25.64	25.59	25.62	0-1.5	1.5

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Table 9-141
NR Band n41 PC2 Maximum Conducted Powers - 15 MHz Bandwidth

NR Band n41 15 MHz Bandwidth									
			Channel					MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	500700 (2503.5 MHz)	509652 (2548.26 MHz)	518598 (2592.99 MHz)	527550 (2637.75 MHz)	536502 (2682.51 MHz)		
			Conducted Power [dBm]						
DFT-s-OFDM π/2 BPSK	1	1	26.82	27.09	27.01	27.15	27.12	0	0.0
	1	19	26.88	26.95	27.13	26.87	26.91		0.0
	1	36	27.09	26.89	26.94	26.89	27.18		0.0
	18	0	26.89	26.69	26.74	26.74	26.82	0-0.5	0.5
	18	10	27.28	27.09	27.09	27.23	27.38	0	0.0
	18	20	26.78	26.57	26.73	26.59	26.86	0-0.5	0.5
	36	0	26.57	26.76	26.63	26.66	26.75		0.5
DFT-s-OFDM QPSK	1	1	27.42	27.04	27.25	27.15	27.04	0	0.0
	1	19	27.15	27.07	27.19	27.23	27.34		0.0
	1	36	27.37	27.20	27.33	27.03	27.15		0.0
	18	0	25.65	25.59	25.70	25.68	25.64	0-1	1.0
	18	10	27.23	27.11	27.27	27.18	27.22	0	0.0
	18	20	25.72	25.58	25.68	25.60	25.76	0-1	1.0
	36	0	25.67	25.62	25.73	25.67	25.63		1.0
DFT-s-OFDM 16QAM	1	1	25.78	25.94	25.86	26.08	25.89	0-1	1.0
CP-OFDM QPSK	1	1	25.65	25.52	25.62	25.70	25.59	0-1.5	1.5

Table 9-142
NR Band n41 PC2 Maximum Conducted Powers - 10 MHz Bandwidth

NR Band n41 10 MHz Bandwidth									
			Channel					MPR Allowed per 3GPP [dB]	MPR [dB]
Modulation	RB Size	RB Offset	500202 (2501.01 MHz)	509400 (2547 MHz)	518598 (2592.99 MHz)	527802 (2639.01 MHz)	537000 (2685 MHz)		
			Conducted Power [dBm]						
DFT-s-OFDM π/2 BPSK	1	1	26.99	26.85	27.21	26.93	27.14	0	0.0
	1	12	27.08	27.05	26.96	27.03	27.02		0.0
	1	22	27.05	26.97	26.85	26.98	26.83		0.0
	12	0	26.70	26.64	26.76	26.58	26.91	0-0.5	0.5
	12	6	27.29	27.10	27.25	27.11	27.36	0	0.0
	12	12	26.81	26.55	26.79	26.54	26.82	0-0.5	0.5
	24	0	26.61	26.57	26.69	26.60	26.74		0.5
DFT-s-OFDM QPSK	1	1	27.16	26.83	26.94	26.96	26.88	0	0.0
	1	12	27.11	26.94	27.19	26.87	26.97		0.0
	1	22	27.23	27.07	27.08	27.15	26.84		0.0
	12	0	25.91	25.83	25.64	25.67	25.77	0-1	1.0
	12	6	27.13	27.10	27.02	26.96	27.26	0	0.0
	12	12	25.69	25.54	25.74	25.77	25.82	0-1	1.0
	24	0	25.61	25.52	25.69	25.63	25.79		1.0
DFT-s-OFDM 16QAM	1	1	25.52	25.80	25.72	26.12	26.10	0-1	1.0
CP-OFDM QPSK	1	1	25.40	25.72	25.61	25.82	25.78	0-1.5	1.5

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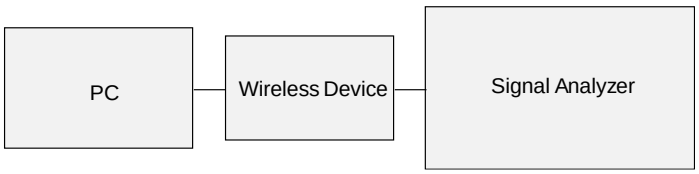

Figure 9-5
Power Measurement Setup

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9.6 WLAN Conducted Powers

Table 9-143
2.4 GHz WLAN Maximum Average RF Power – Ant 1

2.4GHz Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11b	802.11g	802.11n
		Average	Average	Average
2412	1	20.87	16.41	15.63
2422	3	N/A	19.43	18.30
2437	6	20.90	19.44	18.19
2452	9	N/A	19.40	18.25
2462	11	20.90	16.84	15.67

Table 9-144
2.4 GHz WLAN Maximum Average RF Power – Ant 2

2.4GHz Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11b	802.11g	802.11n
		Average	Average	Average
2412	1	20.74	16.38	15.82
2422	3	N/A	19.28	18.20
2437	6	20.90	19.11	18.05
2452	9	N/A	19.14	18.11
2462	11	20.86	16.68	15.55

Table 9-145
2.4 GHz WLAN Reduced Average RF Power– Ant 1

2.4GHz Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11b	802.11g	802.11n
		Average	Average	Average
2412	1	14.78	14.85	14.64
2437	6	14.55	14.62	14.68
2462	11	14.58	14.58	14.35

Table 9-146
2.4 GHz WLAN Reduced Average RF Power – Ant 2

2.4GHz Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11b	802.11g	802.11n
		Average	Average	Average
2412	1	14.74	14.65	14.93
2437	6	14.67	14.44	14.65
2462	11	14.64	14.59	14.70

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Table 9-147
5 GHz WLAN Maximum Average RF Power – Ant 1

5GHz (20MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11a	802.11n	802.11ac
		Average	Average	Average
5180	36	17.27	17.15	17.08
5200	40	19.32	19.11	19.13
5220	44	17.10	16.98	17.01
5240	48	17.12	16.99	16.94
5260	52	17.15	16.99	17.00
5280	56	19.34	19.23	19.24
5300	60	17.11	16.98	16.92
5320	64	17.15	16.94	16.98
5500	100	17.20	16.97	16.96
5600	120	16.65	16.54	16.51
5620	124	16.57	16.36	16.42
5700	140	16.88	16.68	16.65
5720	144	16.87	16.72	16.71
5745	149	16.72	16.52	16.56
5785	157	19.07	18.90	18.88
5825	165	18.88	18.70	18.70

Table 9-148
5 GHz WLAN Maximum Average RF Power – Ant 2

5GHz (20MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11a	802.11n	802.11ac
		Average	Average	Average
5180	36	16.59	16.40	16.50
5200	40	18.58	18.59	18.55
5220	44	16.58	16.36	16.35
5240	48	16.71	16.59	16.55
5260	52	16.68	16.50	16.49
5280	56	18.61	18.46	18.47
5300	60	16.68	16.51	16.46
5320	64	16.67	16.47	16.47
5500	100	17.06	16.84	16.80
5600	120	16.35	16.36	16.31
5620	124	16.53	16.40	16.42
5700	140	16.86	16.72	16.66
5720	144	16.87	16.66	16.70
5745	149	17.02	16.84	16.83
5785	157	18.99	18.90	18.87
5825	165	18.82	18.70	18.65

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Table 9-149
5 GHz WLAN Maximum Average RF Power – MIMO

5GHz (20MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5180	36	17.15	16.40	19.80
5200	40	19.11	18.59	21.87
5220	44	16.98	16.36	19.69
5240	48	16.99	16.59	19.80
5260	52	16.99	16.50	19.76
5280	56	19.23	18.46	21.87
5300	60	16.98	16.51	19.76
5320	64	16.94	16.47	19.72
5500	100	16.97	16.84	19.92
5600	120	16.54	16.36	19.46
5620	124	16.36	16.40	19.39
5720	144	16.72	16.66	19.70
5745	149	16.52	16.84	19.69
5785	157	18.90	18.90	21.91
5825	165	18.70	18.70	21.71

Table 9-150
5 GHz WLAN Reduced Average RF Power– Ant 1

5GHz (20MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11a	802.11n	802.11ac
		Average	Average	Average
5180	36	14.82	14.72	14.61
5200	40	16.61	16.82	16.83
5220	44	14.65	14.51	14.54
5240	48	14.63	14.94	14.93
5260	52	14.62	14.54	14.53
5280	56	16.91	16.76	16.72
5300	60	14.69	14.54	16.45
5320	64	14.53	14.84	16.69
5745	149	14.57	14.81	14.75
5785	157	16.70	16.90	16.91
5825	165	16.72	16.97	16.98

5GHz (40MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11n	802.11ac
		Average	Average
5510	102	13.22	13.25
5550	110	14.81	14.84
5590	118	14.49	14.53
5630	126	14.85	14.83
5710	142	14.50	14.53

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Table 9-151
5 GHz WLAN Reduced Average RF Power– Ant 2

5GHz (20MHz) Conducted Power [dBm]				
Freq [MHz]	Channel	IEEE Transmission Mode		
		802.11a	802.11n	802.11ac
		Average	Average	Average
5180	36	14.53	14.64	14.64
5200	40	16.78	16.71	16.60
5220	44	14.97	14.65	14.63
5240	48	14.62	14.91	14.73
5260	52	14.64	14.85	14.81
5280	56	16.90	16.65	16.70
5300	60	14.65	14.84	14.99
5320	64	14.52	14.73	14.94
5745	149	14.74	14.87	14.91
5785	157	16.80	16.52	16.99
5825	165	16.75	16.94	16.98

5GHz (40MHz) Conducted Power [dBm]			
Freq [MHz]	Channel	IEEE Transmission Mode	
		802.11n	802.11ac
		Average	Average
5510	102	13.43	13.42
5550	110	14.94	14.91
5590	118	14.54	14.68
5630	126	14.79	14.79
5710	142	14.72	14.76

Table 9-152
5 GHz WLAN Reduced Average RF Power– MIMO

5GHz (20MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5180	36	14.72	14.64	17.69
5200	40	16.82	16.71	19.78
5220	44	14.51	14.65	17.59
5240	48	14.94	14.91	17.94
5260	52	14.54	14.85	17.71
5280	56	16.76	16.65	19.72
5300	60	14.54	14.84	17.70
5320	64	14.84	14.73	17.80
5745	149	14.81	14.87	17.85
5765	153	14.80	14.86	17.84
5785	157	16.90	16.52	19.72
5825	165	16.97	16.94	19.97

5GHz (40MHz) 802.11n Conducted Power [dBm]				
Freq [MHz]	Channel	ANT1	ANT2	MIMO
5510	102	13.22	13.43	16.34
5550	110	14.81	14.94	17.89
5590	118	14.49	14.54	17.53
5630	126	14.85	14.79	17.83
5710	142	14.50	14.72	17.62

Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, due to an even number of channels, both channels were measured.

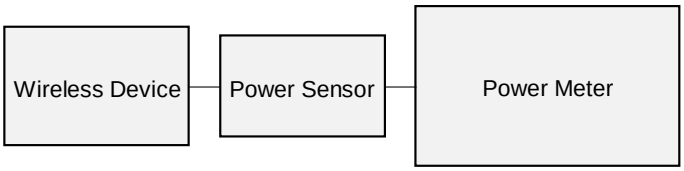

Figure 9-6
Power Measurement Setup

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9.7 Bluetooth Conducted Powers

Table 9-153
Bluetooth Average RF Power

Frequency [MHz]	Data Rate [Mbps]	Channel No.	Avg Conducted Power	
			[dBm]	[mW]
2402	1.0	0	9.18	8.275
2441	1.0	39	10.38	10.921
2480	1.0	78	8.96	7.873
2402	2.0	0	9.18	8.287
2441	2.0	39	10.44	11.077
2480	2.0	78	9.03	8.002
2402	3.0	0	9.27	8.460
2441	3.0	39	10.52	11.263
2480	3.0	78	9.15	8.226

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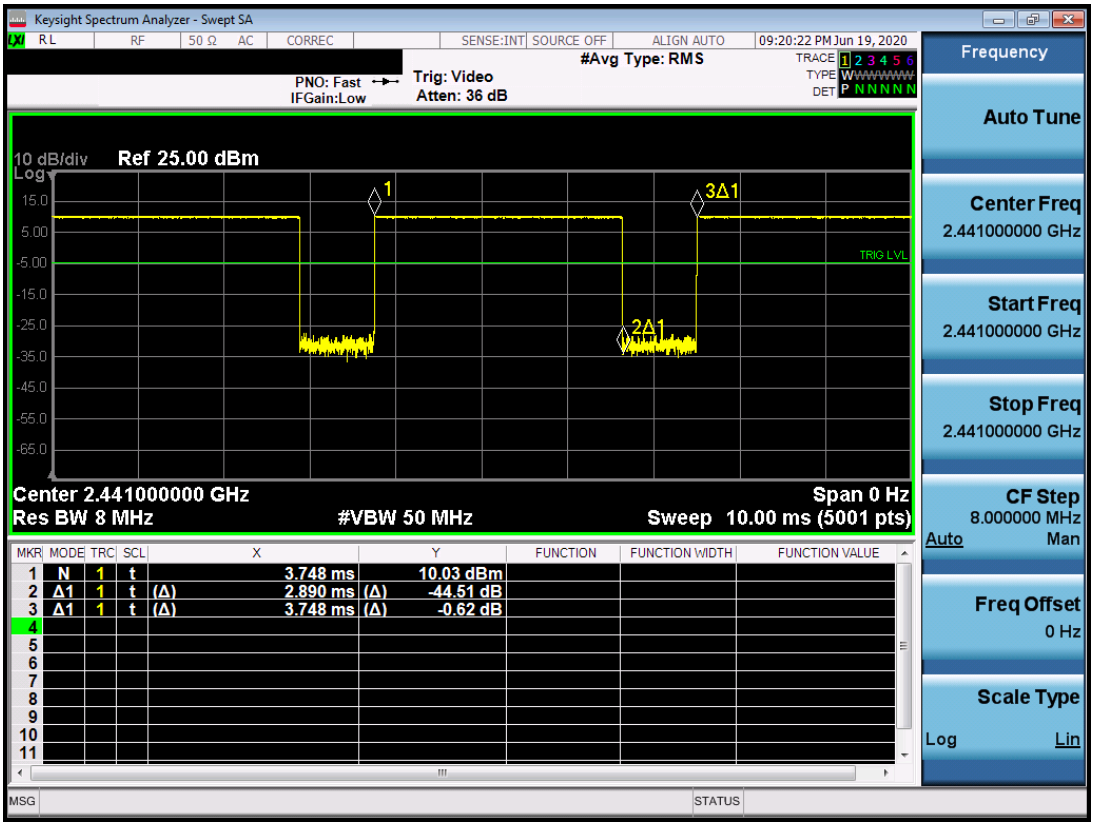

Figure 9-7
Bluetooth Transmission Plot

Equation 9-1
Bluetooth Duty Cycle Calculation

$$\textbf{Duty Cycle} = \frac{\textbf{Pulse Width}}{\textbf{Period}} * 100\% = \frac{2.89\ ms}{3.75\ ms} * 100\% = 77.1\%$$

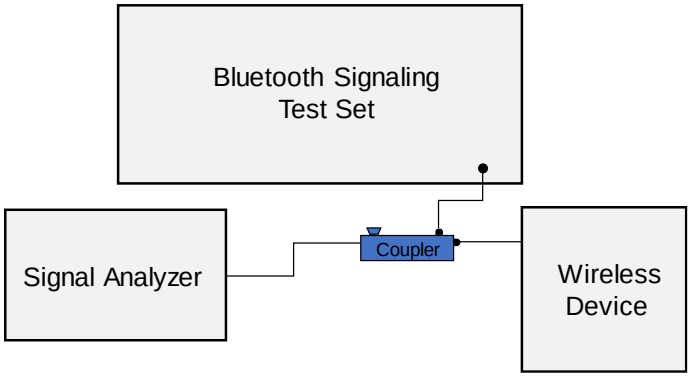

Figure 9-8
Power Measurement Setup

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10 SYSTEM VERIFICATION

10.1 Tissue Verification

Table 10-1
Measured Tissue Properties - Head

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
6/15/2020	750 Head	21.3	680	0.863	43.213	0.888	42.305	-2.82%	2.15%
			695	0.868	43.169	0.889	42.227	-2.36%	2.23%
			700	0.870	43.157	0.889	42.201	-2.14%	2.27%
			710	0.873	43.136	0.890	42.149	-1.91%	2.34%
			725	0.878	43.105	0.891	42.071	-1.46%	2.46%
			750	0.888	43.036	0.894	41.942	-0.67%	2.61%
			770	0.895	42.971	0.895	41.838	0.00%	2.71%
			785	0.901	42.924	0.896	41.760	0.56%	2.79%
			800	0.906	42.881	0.897	41.682	1.00%	2.88%
7/5/2020	750 Head	21.9	680	0.855	43.225	0.888	42.305	-3.72%	2.17%
			695	0.862	43.179	0.889	42.227	-3.04%	2.25%
			700	0.864	43.165	0.889	42.201	-2.81%	2.28%
			710	0.869	43.144	0.890	42.149	-2.36%	2.36%
			725	0.875	43.111	0.891	42.071	-1.80%	2.47%
			750	0.883	43.064	0.894	41.942	-1.23%	2.68%
			770	0.887	43.007	0.895	41.838	-0.89%	2.79%
			785	0.891	42.948	0.896	41.760	-0.56%	2.84%
			800	0.895	42.886	0.897	41.682	-0.22%	2.89%
6/29/2020	835 Head	22.1	820	0.891	41.952	0.899	41.578	-0.89%	0.90%
			835	0.906	41.748	0.900	41.500	0.67%	0.60%
			850	0.922	41.546	0.916	41.500	0.66%	0.11%
7/2/2020	1750 Head	22.7	1710	1.289	40.843	1.348	40.142	-4.38%	1.75%
			1720	1.296	40.827	1.354	40.126	-4.28%	1.75%
			1745	1.311	40.800	1.368	40.087	-4.17%	1.78%
			1750	1.314	40.794	1.371	40.079	-4.16%	1.78%
			1770	1.325	40.764	1.383	40.047	-4.19%	1.79%
			1790	1.335	40.730	1.394	40.016	-4.23%	1.78%
07/28/2020	1750 Head	22.8	1710	1.321	39.432	1.348	40.142	-2.00%	-1.77%
			1720	1.331	39.385	1.354	40.126	-1.70%	-1.85%
			1745	1.358	39.265	1.368	40.087	-0.73%	-2.05%
			1750	1.363	39.253	1.371	40.079	-0.58%	-2.06%
			1770	1.384	39.174	1.383	40.047	0.07%	-2.18%
			1790	1.405	39.087	1.394	40.016	0.79%	-2.32%
6/26/2020	1900 Head	21.3	1850	1.370	40.338	1.400	40.000	-2.14%	0.85%
			1860	1.376	40.327	1.400	40.000	-1.71%	0.82%
			1880	1.388	40.304	1.400	40.000	-0.86%	0.76%
			1900	1.401	40.275	1.400	40.000	0.07%	0.69%
			1905	1.404	40.268	1.400	40.000	0.29%	0.67%
			1910	1.407	40.260	1.400	40.000	0.50%	0.65%

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Table 10-2
Measured Tissue Properties – Head Continued

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
7/3/2020	1900 Head	21.3	1850	1.340	40.157	1.400	40.000	-4.29%	0.39%
			1860	1.346	40.142	1.400	40.000	-3.86%	0.36%
			1880	1.359	40.110	1.400	40.000	-2.93%	0.27%
			1900	1.371	40.081	1.400	40.000	-2.07%	0.20%
			1905	1.374	40.076	1.400	40.000	-1.86%	0.19%
			1910	1.377	40.069	1.400	40.000	-1.64%	0.17%
7/15/2020	1900 Head	22.9	1850	1.335	39.993	1.400	40.000	-4.64%	-0.02%
			1860	1.340	39.981	1.400	40.000	-4.29%	-0.05%
			1880	1.351	39.965	1.400	40.000	-3.50%	-0.09%
			1900	1.362	39.950	1.400	40.000	-2.71%	-0.12%
			1905	1.364	39.946	1.400	40.000	-2.57%	-0.14%
			1910	1.367	39.943	1.400	40.000	-2.36%	-0.14%
6/28/2020	2450 Head	22.3	2400	1.781	41.165	1.756	39.289	1.42%	4.77%
			2450	1.821	41.109	1.800	39.200	1.17%	4.87%
			2480	1.843	41.060	1.833	39.162	0.55%	4.85%
7/8/2020	2450 Head	22.1	2400	1.740	41.003	1.756	39.289	-0.91%	4.36%
			2450	1.780	40.942	1.800	39.200	-1.11%	4.44%
			2480	1.802	40.908	1.833	39.162	-1.69%	4.46%
07/13/2020	2450 Head	24.7	2535	1.963	38.611	1.893	39.092	3.70%	-1.23%
			2550	1.981	38.543	1.909	39.073	3.77%	-1.36%
			2560	1.993	38.495	1.920	39.060	3.80%	-1.45%
			2600	2.044	38.333	1.964	39.009	4.07%	-1.73%
			2650	2.102	38.133	2.018	38.945	4.16%	-2.08%
			2680	2.140	37.993	2.051	38.907	4.34%	-2.35%
			2700	2.165	37.913	2.073	38.882	4.44%	-2.49%
7/20/2020	2450 Head	22.0	2400	1.746	40.788	1.756	39.289	-0.57%	3.82%
			2450	1.788	40.696	1.800	39.200	-0.67%	3.82%
			2480	1.809	40.656	1.833	39.162	-1.31%	3.81%
			2500	1.823	40.628	1.855	39.136	-1.73%	3.81%
			2510	1.830	40.614	1.866	39.123	-1.93%	3.81%
			2535	1.849	40.570	1.893	39.092	-2.32%	3.78%
			2550	1.863	40.545	1.909	39.073	-2.41%	3.77%
			2560	1.871	40.534	1.920	39.060	-2.55%	3.77%
			2600	1.903	40.481	1.964	39.009	-3.11%	3.77%
			2650	1.942	40.401	2.018	38.945	-3.77%	3.74%
			2680	1.969	40.357	2.051	38.907	-4.00%	3.73%
			2700	1.987	40.322	2.073	38.882	-4.15%	3.70%
7/20/2020	5250 - 5750 Head	21.5	5250	4.569	37.161	4.706	35.929	-2.91%	3.43%
			5260	4.579	37.136	4.717	35.917	-2.93%	3.39%
			5270	4.588	37.121	4.727	35.906	-2.94%	3.38%
			5280	4.599	37.116	4.737	35.894	-2.91%	3.40%
			5290	4.610	37.117	4.748	35.883	-2.91%	3.44%
			5300	4.620	37.110	4.758	35.871	-2.90%	3.45%
			5310	4.630	37.100	4.768	35.860	-2.89%	3.46%
			5320	4.639	37.085	4.778	35.849	-2.91%	3.45%
			5500	4.827	36.769	4.963	35.643	-2.74%	3.16%
			5510	4.841	36.760	4.973	35.632	-2.65%	3.17%
			5520	4.851	36.756	4.983	35.620	-2.65%	3.19%
			5530	4.861	36.753	4.994	35.609	-2.66%	3.21%
			5540	4.868	36.742	5.004	35.597	-2.72%	3.22%
			5550	4.875	36.723	5.014	35.586	-2.77%	3.20%
			5560	4.879	36.704	5.024	35.574	-2.89%	3.18%
			5580	4.900	36.676	5.045	35.551	-2.87%	3.16%
			5600	4.935	36.638	5.065	35.529	-2.57%	3.12%
			5610	4.949	36.626	5.076	35.518	-2.50%	3.12%
			5620	4.960	36.623	5.086	35.506	-2.48%	3.15%
			5640	4.982	36.601	5.106	35.483	-2.43%	3.15%
			5660	4.997	36.559	5.127	35.460	-2.54%	3.10%
			5670	5.005	36.533	5.137	35.449	-2.57%	3.06%
			5680	5.015	36.512	5.147	35.437	-2.56%	3.03%
			5690	5.027	36.493	5.158	35.426	-2.54%	3.01%
			5700	5.039	36.483	5.168	35.414	-2.50%	3.02%
			5710	5.052	36.475	5.178	35.403	-2.43%	3.03%
			5720	5.064	36.466	5.188	35.391	-2.39%	3.04%
			5745	5.089	36.443	5.214	35.363	-2.40%	3.05%
			5750	5.092	36.435	5.219	35.357	-2.43%	3.05%
			5755	5.094	36.425	5.224	35.351	-2.49%	3.04%
			5765	5.101	36.407	5.234	35.340	-2.54%	3.02%
			5775	5.110	36.383	5.245	35.329	-2.57%	2.98%
			5785	5.122	36.361	5.255	35.317	-2.53%	2.96%
			5795	5.136	36.342	5.265	35.305	-2.45%	2.94%
			5800	5.143	36.335	5.270	35.300	-2.41%	2.93%
			5805	5.149	36.327	5.275	35.294	-2.39%	2.93%
			5825	5.170	36.301	5.296	35.271	-2.38%	2.92%

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Table 10-3
Measured Tissue Properties – Body

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
6/22/2020	750 Body	23.5	680	0.926	56.823	0.958	55.804	-3.34%	1.83%
			695	0.930	56.794	0.959	55.745	-3.02%	1.88%
			700	0.932	56.786	0.959	55.726	-2.82%	1.90%
			710	0.936	56.768	0.960	55.687	-2.50%	1.94%
			725	0.941	56.738	0.961	55.629	-2.08%	1.99%
			750	0.951	56.673	0.964	55.531	-1.35%	2.06%
			770	0.958	56.627	0.965	55.453	-0.73%	2.12%
			785	0.963	56.593	0.966	55.395	-0.31%	2.16%
			800	0.969	56.561	0.967	55.336	0.21%	2.21%
6/25/2020	750 Body	23.1	680	0.922	56.521	0.958	55.804	-3.76%	1.28%
			695	0.928	56.485	0.959	55.745	-3.23%	1.33%
			700	0.929	56.472	0.959	55.726	-3.13%	1.34%
			710	0.933	56.446	0.960	55.687	-2.81%	1.36%
			725	0.939	56.404	0.961	55.629	-2.29%	1.39%
			750	0.948	56.350	0.964	55.531	-1.66%	1.47%
			770	0.954	56.313	0.965	55.453	-1.14%	1.55%
			785	0.960	56.274	0.966	55.395	-0.62%	1.59%
			800	0.967	56.239	0.967	55.336	0.00%	1.63%
7/1/2020	750 Body	21.8	680	0.929	54.129	0.958	55.804	-3.03%	-3.00%
			695	0.934	54.096	0.959	55.745	-2.61%	-2.96%
			700	0.936	54.087	0.959	55.726	-2.40%	-2.94%
			710	0.940	54.063	0.960	55.687	-2.08%	-2.92%
			725	0.945	54.025	0.961	55.629	-1.66%	-2.88%
			750	0.955	53.959	0.964	55.531	-0.93%	-2.83%
			770	0.962	53.924	0.965	55.453	-0.31%	-2.76%
			785	0.967	53.904	0.966	55.395	0.10%	-2.69%
			800	0.973	53.879	0.967	55.336	0.62%	-2.63%
6/24/2020	835 Body	22.3	820	0.950	54.264	0.969	55.258	-1.96%	-1.80%
			835	0.965	54.112	0.970	55.200	-0.52%	-1.97%
			850	0.981	53.963	0.988	55.154	-0.71%	-2.16%
6/29/2020	835 Body	23.0	820	0.951	53.331	0.969	55.258	-1.86%	-3.49%
			835	0.966	53.197	0.970	55.200	-0.41%	-3.63%
			850	0.981	53.059	0.988	55.154	-0.71%	-3.80%
06/29/2020	835 Body	21.3	820	0.944	53.819	0.969	55.258	-2.58%	-2.60%
			835	0.960	53.653	0.970	55.200	-1.03%	-2.80%
			850	0.976	53.501	0.988	55.154	-1.21%	-3.00%
6/24/2020	1750 Body	21.8	1710	1.470	52.117	1.463	53.537	0.48%	-2.65%
			1720	1.481	52.073	1.469	53.511	0.82%	-2.69%
			1745	1.508	51.959	1.485	53.445	1.55%	-2.78%
			1750	1.514	51.937	1.488	53.432	1.75%	-2.80%
			1770	1.535	51.851	1.501	53.379	2.27%	-2.86%
			1790	1.557	51.768	1.514	53.326	2.84%	-2.92%
7/8/2020	1750 Body	22.6	1710	1.467	52.016	1.463	53.537	0.27%	-2.84%
			1720	1.475	51.999	1.469	53.511	0.41%	-2.83%
			1745	1.493	51.958	1.485	53.445	0.54%	-2.78%
			1750	1.497	51.950	1.488	53.432	0.60%	-2.77%
			1770	1.510	51.917	1.501	53.379	0.60%	-2.74%
			1790	1.522	51.888	1.514	53.326	0.53%	-2.70%
7/15/2020	1750 Body	21.8	1710	1.487	51.406	1.463	53.537	1.64%	-3.98%
			1720	1.498	51.369	1.469	53.511	1.97%	-4.00%
			1745	1.526	51.259	1.485	53.445	2.76%	-4.09%
			1750	1.532	51.237	1.488	53.432	2.96%	-4.11%
			1770	1.554	51.150	1.501	53.379	3.53%	-4.18%
			1790	1.576	51.070	1.514	53.326	4.10%	-4.23%
7/19/2020	1750 Body	21.7	1710	1.480	51.648	1.463	53.537	1.16%	-3.53%
			1720	1.491	51.611	1.469	53.511	1.50%	-3.55%
			1745	1.519	51.507	1.485	53.445	2.29%	-3.63%
			1750	1.524	51.487	1.488	53.432	2.42%	-3.64%
			1770	1.546	51.410	1.501	53.379	3.00%	-3.69%
			1790	1.569	51.341	1.514	53.326	3.63%	-3.72%
07/22/2020	1750 Body	21.5	1710	1.480	51.601	1.463	53.537	1.16%	-3.62%
			1720	1.492	51.558	1.469	53.511	1.57%	-3.65%
			1745	1.520	51.456	1.485	53.445	2.36%	-3.72%
			1750	1.526	51.434	1.488	53.432	2.55%	-3.74%
			1770	1.547	51.349	1.501	53.379	3.06%	-3.80%
			1790	1.568	51.259	1.514	53.326	3.57%	-3.88%
07/26/2020	1750 Body	21.4	1710	1.469	51.295	1.463	53.537	0.41%	-4.19%
			1720	1.481	51.251	1.469	53.511	0.82%	-4.22%
			1745	1.508	51.136	1.485	53.445	1.55%	-4.32%
			1750	1.514	51.115	1.488	53.432	1.75%	-4.34%
			1770	1.535	51.035	1.501	53.379	2.27%	-4.39%
			1790	1.557	50.960	1.514	53.326	2.84%	-4.44%
07/29/2020	1750 Body	22.6	1710	1.429	51.680	1.463	53.537	-2.32%	-3.47%
			1720	1.442	51.661	1.469	53.511	-1.84%	-3.46%
			1745	1.470	51.580	1.485	53.445	-1.01%	-3.49%
			1750	1.475	51.563	1.488	53.432	-0.87%	-3.50%
			1770	1.495	51.468	1.501	53.379	-0.40%	-3.58%
			1790	1.514	51.382	1.514	53.326	0.00%	-3.65%

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Table 10-4
Measured Tissue Properties – Body Continued

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (˚C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
06/26/2020	1900 Body	24.5	1850	1.513	51.485	1.520	53.300	-0.46%	-3.41%
			1860	1.524	51.453	1.520	53.300	0.26%	-3.47%
			1880	1.545	51.388	1.520	53.300	1.64%	-3.59%
			1900	1.566	51.319	1.520	53.300	3.03%	-3.72%
			1905	1.571	51.302	1.520	53.300	3.36%	-3.75%
			1910	1.576	51.285	1.520	53.300	3.68%	-3.78%
06/23/2020	1900 Body	22.8	1850	1.468	52.139	1.520	53.300	-3.42%	-2.18%
			1860	1.479	52.109	1.520	53.300	-2.70%	-2.23%
			1880	1.499	52.051	1.520	53.300	-1.38%	-2.34%
			1900	1.520	51.989	1.520	53.300	0.00%	-2.46%
			1905	1.526	51.972	1.520	53.300	0.39%	-2.49%
			1910	1.531	51.953	1.520	53.300	0.72%	-2.53%
07/04/2020	1900 Body	23.5	1850	1.527	51.570	1.520	53.300	0.46%	-3.25%
			1860	1.539	51.544	1.520	53.300	1.25%	-3.29%
			1880	1.561	51.469	1.520	53.300	2.70%	-3.44%
			1900	1.583	51.410	1.520	53.300	4.14%	-3.55%
			1905	1.590	51.381	1.520	53.300	4.61%	-3.60%
			1910	1.595	51.371	1.520	53.300	4.93%	-3.62%
07/06/2020	1900 Body	23.5	1850	1.520	51.807	1.520	53.300	0.00%	-2.80%
			1860	1.531	51.769	1.520	53.300	0.72%	-2.87%
			1880	1.553	51.691	1.520	53.300	2.17%	-3.02%
			1900	1.575	51.624	1.520	53.300	3.62%	-3.14%
			1905	1.581	51.608	1.520	53.300	4.01%	-3.17%
			1910	1.587	51.590	1.520	53.300	4.41%	-3.21%
07/09/2020	1900 Body	23.5	1850	1.512	52.047	1.520	53.300	-0.53%	-2.35%
			1860	1.522	52.012	1.520	53.300	0.13%	-2.42%
			1880	1.544	51.947	1.520	53.300	1.58%	-2.54%
			1900	1.565	51.887	1.520	53.300	2.96%	-2.65%
			1905	1.570	51.870	1.520	53.300	3.29%	-2.68%
			1910	1.576	51.855	1.520	53.300	3.68%	-2.71%
07/11/2020	1900 Body	23.6	1850	1.506	52.926	1.520	53.300	-0.92%	-0.70%
			1860	1.516	52.894	1.520	53.300	-0.26%	-0.76%
			1880	1.539	52.837	1.520	53.300	1.25%	-0.87%
			1900	1.562	52.779	1.520	53.300	2.76%	-0.98%
			1905	1.567	52.763	1.520	53.300	3.09%	-1.01%
			1910	1.573	52.746	1.520	53.300	3.49%	-1.04%
07/14/2020	1900 Body	23.1	1850	1.500	52.884	1.520	53.300	-1.32%	-0.78%
			1860	1.512	52.850	1.520	53.300	-0.53%	-0.84%
			1880	1.534	52.790	1.520	53.300	0.92%	-0.96%
			1900	1.556	52.729	1.520	53.300	2.37%	-1.07%
			1905	1.562	52.713	1.520	53.300	2.76%	-1.10%
			1910	1.568	52.697	1.520	53.300	3.16%	-1.13%
07/21/2020	1900 Body	21.5	1850	1.521	52.381	1.520	53.300	0.07%	-1.72%
			1860	1.532	52.345	1.520	53.300	0.79%	-1.79%
			1880	1.554	52.277	1.520	53.300	2.24%	-1.92%
			1900	1.576	52.214	1.520	53.300	3.68%	-2.04%
			1905	1.582	52.199	1.520	53.300	4.08%	-2.07%
			1910	1.587	52.183	1.520	53.300	4.41%	-2.10%
07/22/2020	1900 Body	23.5	1850	1.509	54.041	1.520	53.300	-0.72%	1.39%
			1860	1.520	54.013	1.520	53.300	0.00%	1.34%
			1880	1.542	53.956	1.520	53.300	1.45%	1.23%
			1900	1.564	53.890	1.520	53.300	2.89%	1.11%
			1905	1.570	53.871	1.520	53.300	3.29%	1.07%
			1910	1.575	53.855	1.520	53.300	3.62%	1.04%
07/30/2020	1900 Body	23.3	1850	1.509	52.150	1.520	53.300	-0.72%	-2.16%
			1860	1.520	52.123	1.520	53.300	0.00%	-2.21%
			1880	1.541	52.064	1.520	53.300	1.38%	-2.32%
			1900	1.562	51.999	1.520	53.300	2.76%	-2.44%
			1905	1.567	51.983	1.520	53.300	3.09%	-2.47%
			1910	1.572	51.967	1.520	53.300	3.42%	-2.50%
06/22/2020	2450 Body	23.8	2400	1.963	50.850	1.902	52.767	3.21%	-3.63%
			2450	2.019	50.715	1.950	52.700	3.54%	-3.77%
			2480	2.056	50.628	1.993	52.662	3.16%	-3.86%
			2500	2.073	50.600	2.021	52.636	2.57%	-3.87%
06/25/2020	2450 Body	23.4	2400	1.981	51.512	1.902	52.767	4.15%	-2.38%
			2450	2.038	51.373	1.950	52.700	4.51%	-2.52%
			2480	2.072	51.280	1.993	52.662	3.96%	-2.62%
			2500	2.096	51.209	2.021	52.636	3.71%	-2.71%

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Table 10-5
Measured Tissue Properties – Body Continued

Calibrated for Tests Performed on:	Tissue Type	Tissue Temp During Calibration (°C)	Measured Frequency (MHz)	Measured Conductivity, σ (S/m)	Measured Dielectric Constant, ε	TARGET Conductivity, σ (S/m)	TARGET Dielectric Constant, ε	% dev σ	% dev ε
7/18/2020	2450 Body	23.6	2400	1.928	51.627	1.902	52.767	1.37%	-2.16%
			2450	1.998	51.437	1.95	52.7	2.46%	-2.40%
			2480	2.037	51.319	1.993	52.662	2.21%	-2.55%
			2500	2.063	51.241	2.021	52.636	2.08%	-2.65%
			2510	2.077	51.202	2.035	52.623	2.06%	-2.70%
			2535	2.111	51.111	2.071	52.592	1.93%	-2.82%
			2550	2.132	51.06	2.092	52.573	1.91%	-2.88%
			2560	2.145	51.026	2.106	52.56	1.85%	-2.92%
			2600	2.201	50.877	2.163	52.509	1.76%	-3.11%
			2650	2.27	50.685	2.234	52.445	1.61%	-3.36%
			2680	2.312	50.565	2.277	52.407	1.54%	-3.51%
			2700	2.34	50.48	2.305	52.382	1.52%	-3.63%
07/20/2020	2450 Body	23.6	2400	1.975	51.641	1.902	52.767	3.84%	-2.13%
			2450	2.034	51.503	1.950	52.700	4.31%	-2.27%
			2480	2.071	51.411	1.993	52.662	3.91%	-2.38%
			2500	2.095	51.350	2.021	52.636	3.66%	-2.44%
07/23/2020	2450 Body	22.6	2500	2.076	50.644	2.021	52.636	2.72%	-3.78%
			2510	2.090	50.623	2.035	52.623	2.70%	-3.80%
			2535	2.122	50.532	2.071	52.592	2.46%	-3.92%
			2550	2.144	50.467	2.092	52.573	2.49%	-4.01%
			2560	2.158	50.427	2.106	52.560	2.47%	-4.06%
			2600	2.213	50.291	2.163	52.509	2.31%	-4.22%
			2650	2.283	50.085	2.234	52.445	2.19%	-4.50%
07/11/2020	2450 Body	23.0	2500	2.045	51.306	2.021	52.636	1.19%	-2.53%
			2510	2.058	51.273	2.035	52.623	1.13%	-2.57%
			2535	2.091	51.218	2.071	52.592	0.97%	-2.61%
			2550	2.112	51.194	2.092	52.573	0.96%	-2.62%
			2560	2.128	51.163	2.106	52.560	1.04%	-2.66%
			2600	2.168	51.053	2.163	52.509	0.23%	-2.77%
			2650	2.227	50.903	2.234	52.445	-0.31%	-2.94%
06/29/2020	5200-5800 Body	22.9	5180	5.352	46.930	5.276	49.041	1.44%	-4.30%
			5190	5.361	46.919	5.288	49.028	1.38%	-4.30%
			5200	5.370	46.909	5.299	49.014	1.34%	-4.29%
			5210	5.383	46.899	5.311	49.001	1.36%	-4.29%
			5220	5.395	46.892	5.323	48.987	1.35%	-4.28%
			5240	5.419	46.847	5.346	48.960	1.37%	-4.32%
			5250	5.429	46.818	5.358	48.947	1.33%	-4.35%
			5260	5.445	46.791	5.369	48.933	1.42%	-4.38%
			5270	5.461	46.766	5.381	48.919	1.49%	-4.40%
			5280	5.478	46.754	5.393	48.906	1.58%	-4.40%
			5290	5.492	46.742	5.404	48.892	1.63%	-4.40%
			5300	5.505	46.736	5.416	48.879	1.64%	-4.38%
			5310	5.514	46.725	5.428	48.865	1.58%	-4.38%
			5320	5.526	46.713	5.439	48.851	1.60%	-4.38%
			5500	5.763	46.408	5.650	48.607	2.00%	-4.52%
			5510	5.778	46.387	5.661	48.594	2.07%	-4.54%
			5520	5.791	46.370	5.673	48.580	2.08%	-4.55%
			5530	5.805	46.363	5.685	48.566	2.11%	-4.54%
			5540	5.816	46.355	5.696	48.553	2.11%	-4.53%
			5550	5.825	46.339	5.708	48.539	2.05%	-4.53%
			5560	5.835	46.314	5.720	48.526	2.01%	-4.56%
			5580	5.864	46.281	5.743	48.499	2.11%	-4.57%
			5600	5.896	46.244	5.766	48.471	2.25%	-4.59%
			5610	5.912	46.221	5.778	48.458	2.32%	-4.62%
			5620	5.930	46.207	5.790	48.444	2.42%	-4.62%
			5640	5.955	46.191	5.813	48.417	2.44%	-4.60%
			5660	5.979	46.160	5.837	48.390	2.43%	-4.61%
			5670	5.992	46.139	5.848	48.376	2.46%	-4.62%
			5680	6.007	46.120	5.860	48.363	2.51%	-4.64%
			5690	6.020	46.100	5.872	48.349	2.52%	-4.65%
			5700	6.036	46.078	5.883	48.336	2.60%	-4.67%
			5710	6.051	46.061	5.895	48.322	2.65%	-4.68%
			5720	6.063	46.045	5.907	48.309	2.64%	-4.69%
			5745	6.096	46.016	5.936	48.275	2.70%	-4.68%
			5750	6.103	46.008	5.942	48.268	2.71%	-4.68%
			5755	6.109	46.001	5.947	48.261	2.72%	-4.68%
			5765	6.123	45.986	5.959	48.248	2.75%	-4.69%
			5775	6.135	45.969	5.971	48.234	2.75%	-4.70%
			5785	6.149	45.952	5.982	48.220	2.79%	-4.70%
			5795	6.163	45.935	5.994	48.207	2.82%	-4.71%
			5800	6.171	45.925	6.000	48.200	2.85%	-4.72%
			5805	6.177	45.918	6.006	48.193	2.85%	-4.72%
			5825	6.202	45.887	6.029	48.166	2.87%	-4.73%
07/13/2020	5200-5800 Body	22.6	5745	6.103	45.962	5.936	48.275	2.81%	-4.79%
			5750	6.107	45.951	5.942	48.268	2.78%	-4.80%
			5755	6.111	45.946	5.947	48.261	2.76%	-4.80%
			5765	6.123	45.929	5.959	48.248	2.75%	-4.81%
			5775	6.144	45.898	5.971	48.234	2.90%	-4.84%
			5785	6.165	45.864	5.982	48.220	3.06%	-4.89%
			5795	6.187	45.851	5.994	48.207	3.22%	-4.89%
			5800	6.194	45.848	6.000	48.200	3.23%	-4.88%
			5805	6.204	45.849	6.006	48.193	3.30%	-4.86%
07/05/2020	5200-5800 Body	21.7	5180	5.349	46.975	5.276	49.041	1.38%	-4.21%
			5190	5.358	46.968	5.288	49.028	1.32%	-4.20%
			5200	5.368	46.955	5.299	49.014	1.30%	-4.20%
			5210	5.379	46.939	5.311	49.001	1.28%	-4.21%
			5220	5.391	46.915	5.323	48.987	1.28%	-4.23%
			5240	5.420	46.855	5.346	48.960	1.38%	-4.30%
			5250	5.434	46.826	5.358	48.947	1.42%	-4.33%
			5260	5.449	46.811	5.369	48.933	1.49%	-4.34%
			5270	5.462	46.799	5.381	48.919	1.51%	-4.33%
			5280	5.476	46.794	5.393	48.906	1.54%	-4.32%
			5290	5.489	46.785	5.404	48.892	1.57%	-4.31%
			5300	5.499	46.776	5.416	48.879	1.53%	-4.30%
			5310	5.512	46.762	5.428	48.865	1.55%	-4.30%
			5320	5.521	46.738	5.439	48.851	1.51%	-4.33%
			5500	5.755	46.415	5.650	48.607	1.86%	-4.51%
			5510	5.771	46.401	5.661	48.594	1.94%	-4.51%
			5520	5.787	46.397	5.673	48.580	2.01%	-4.49%
			5530	5.797	46.386	5.685	48.566	1.97%	-4.49%
			5540	5.806	46.372	5.696	48.553	1.93%	-4.49%
			5550	5.817	46.353	5.708	48.539	1.91%	-4.50%
			5560	5.829	46.331	5.720	48.526	1.91%	-4.52%
			5580	5.855	46.296	5.743	48.499	1.95%	-4.54%
			5600	5.891	46.256	5.766	48.471	2.17%	-4.57%
			5610	5.908	46.233	5.778	48.458	2.25%	-4.59%
			5620	5.921	46.210	5.790	48.444	2.26%	-4.61%
			5640	5.945	46.190	5.813	48.417	2.27%	-4.60%
			5660	5.971	46.154	5.837	48.390	2.30%	-4.62%
			5670	5.982	46.141	5.848	48.376	2.29%	-4.62%
			5680	5.994	46.130	5.860	48.363	2.29%	-4.62%
			5690	6.008	46.109	5.872	48.349	2.32%	-4.63%
			5700	6.023	46.086	5.883	48.336	2.38%	-4.65%
			5710	6.035	46.060	5.895	48.322	2.37%	-4.68%
			5720	6.047	46.050	5.907	48.309	2.37%	-4.68%
			5745	6.089	46.027	5.936	48.275	2.58%	-4.66%
			5750	6.096	46.020	5.942	48.268	2.59%	-4.66%
			5755	6.103	46.011	5.947	48.261	2.62%	-4.66%
			5765	6.114	45.998	5.959	48.248	2.60%	-4.66%
			5775	6.125	45.988	5.971	48.234	2.58%	-4.66%
			5785	6.138	45.969	5.982	48.220	2.61%	-4.67%
			5795	6.150	45.943	5.994	48.207	2.60%	-4.70%
			5800	6.157	45.932	6.000	48.200	2.62%	-4.71%
			5805	6.164	45.924	6.006	48.193	2.63%	-4.71%
			5825	6.191	45.887	6.029	48.166	2.69%	-4.73%

The above measured tissue parameters were used in the DASY software. The DASY software was used to perform interpolation to determine the dielectric parameters at the SAR test device frequencies (per KDB Publication 865664 D01v01r04 and IEEE 1528-2013 6.6.1.2). The tissue parameters listed in the SAR test plots may slightly differ from the table above due to significant digit rounding in the software.

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10.2 Test System Verification

Prior to SAR assessment, the system is verified to ±10% of the SAR measurement on the reference dipole at the time of calibration by the calibration facility. Full system validation status and result summary can be found in Appendix D.

Table 10-6
System Verification Results – Head 1g

System Verification TARGET & MEASURED												
SAR System #	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp (°C)	Liquid Temp (°C)	Input Power (W)	Source SN	Probe SN	Measured SAR_{1g} (W/kg)	1 W Target SAR_{1g} (W/kg)	1 W Normalized SAR_{1g} (W/kg)	$Deviation_{1g}$ (%)
E	750	HEAD	06/15/2020	22.5	21.5	0.200	1054	3589	1.770	8.630	8.850	2.55%
E	750	HEAD	07/05/2020	20.3	21.9	0.200	1003	3589	1.670	8.780	8.350	-4.90%
L	835	HEAD	06/29/2020	23.1	21.9	0.200	4d132	7410	1.920	9.650	9.600	-0.52%
E	1750	HEAD	07/02/2020	23.1	22.7	0.100	1150	3589	3.390	36.500	33.900	-7.12%
E	1750	HEAD	07/28/2020	23.2	22.8	0.100	1008	3589	3.900	36.200	39.000	7.73%
L	1900	HEAD	06/26/2020	24.6	21.8	0.100	5d148	7410	4.120	39.100	41.200	5.37%
L	1900	HEAD	07/03/2020	23.4	21.3	0.100	5d148	7410	4.170	39.100	41.700	6.65%
L	1900	HEAD	07/15/2020	24.8	22.3	0.100	5d148	7406	4.180	39.100	41.800	6.91%
E	2450	HEAD	06/28/2020	22.9	22.3	0.100	719	3589	5.340	53.100	53.400	0.56%
E	2450	HEAD	07/08/2020	24.7	22.1	0.100	981	3589	5.100	52.300	51.000	-2.49%
E	2600	HEAD	07/13/2020	23.6	22.8	0.100	1004	3589	5.720	55.900	57.200	2.33%
E	2600	HEAD	07/20/2020	22.7	21.7	0.100	1004	3589	5.550	55.900	55.500	-0.72%
H	5250	HEAD	07/20/2020	21.0	21.0	0.050	1057	7357	3.710	79.200	74.200	-6.31%
H	5600	HEAD	07/20/2020	21.0	21.0	0.050	1057	7357	3.930	84.100	78.600	-6.54%
H	5750	HEAD	07/20/2020	21.0	21.0	0.050	1057	7357	3.740	80.500	74.800	-7.08%

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Table 10-7
System Verification Results – Body 1g

System Verification TARGET & MEASURED												
SAR System #	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp (°C)	Liquid Temp (°C)	Input Power (W)	Source SN	Probe SN	Measured SAR_{1g} (W/kg)	1 W Target SAR_{1g} (W/kg)	1 W Normalized SAR_{1g} (W/kg)	Deviation$_{1g}$ (%)
E	750	BODY	06/22/2020	23.2	22.0	0.200	1003	3589	1.820	8.610	9.100	5.69%
E	750	BODY	06/25/2020	23.9	21.6	0.200	1003	3589	1.710	8.610	8.550	-0.70%
L	750	BODY	07/01/2020	23.7	22.0	0.200	1054	7410	1.800	8.530	9.000	5.51%
P	835	BODY	06/24/2020	22.9	22.3	0.200	4d133	7551	1.940	9.750	9.700	-0.51%
D	835	BODY	06/29/2020	22.8	23.0	0.200	4d047	7488	1.960	9.470	9.800	3.48%
P	835	BODY	06/29/2020	22.4	21.3	0.200	4d132	7551	2.010	9.960	10.050	0.90%
L	1750	BODY	06/24/2020	24.3	21.8	0.100	1148	7410	3.910	36.300	39.100	7.71%
H	1750	BODY	07/08/2020	21.0	21.0	0.100	1008	7357	3.860	37.400	38.600	3.21%
P	1750	BODY	07/15/2020	23.1	21.9	0.100	1150	7551	3.740	36.600	37.400	2.19%
P	1750	BODY	07/19/2020	23.5	21.3	0.100	1150	7551	3.900	36.600	39.000	6.56%
L	1750	BODY	07/26/2020	22.5	21.8	0.100	1148	7406	3.890	36.300	38.900	7.16%
I	1750	BODY	07/29/2020	23.4	22.6	0.100	1008	7570	3.820	37.400	38.200	2.14%
J	1900	BODY	06/23/2020	23.1	22.8	0.100	5d149	7571	4.160	39.400	41.600	5.58%
J	1900	BODY	06/26/2020	22.5	23.5	0.100	5d149	7571	4.170	39.400	41.700	5.84%
J	1900	BODY	07/04/2020	22.1	23.5	0.100	5d149	7571	4.270	39.400	42.700	8.38%
J	1900	BODY	07/06/2020	22.5	23.0	0.100	5d080	7571	4.260	39.200	42.600	8.67%
J	1900	BODY	07/09/2020	23.1	23.5	0.100	5d149	7571	4.320	39.400	43.200	9.64%
J	1900	BODY	07/14/2020	24.0	23.1	0.100	5d080	7571	4.160	39.200	41.600	6.12%
H	1900	BODY	07/21/2020	23.0	21.5	0.100	5d080	7357	4.200	39.200	42.000	7.14%
K	2450	BODY	06/22/2020	22.0	22.0	0.100	719	7547	5.200	50.800	52.000	2.36%
K	2450	BODY	06/25/2020	22.0	21.7	0.100	719	7547	5.290	50.800	52.900	4.13%
O	2450	BODY	07/18/2020	23.9	22.8	0.100	981	7552	4.920	50.900	49.200	-3.34%
K	2450	BODY	07/20/2020	23.6	23.6	0.100	719	7409	5.290	50.800	52.900	4.13%
K	2600	BODY	07/11/2020	23.5	22.4	0.100	1064	7409	5.590	55.600	55.900	0.54%
O	2600	BODY	07/18/2020	23.9	22.8	0.100	1004	7552	5.810	54.800	58.100	6.02%
O	2600	BODY	07/23/2020	25.0	23.2	0.100	1004	7552	5.850	54.800	58.500	6.75%
G	5250	BODY	06/29/2020	21.9	22.9	0.050	1237	7538	3.520	75.600	70.400	-6.88%
G	5600	BODY	06/29/2020	21.9	22.9	0.050	1237	7538	3.840	78.500	76.800	-2.17%
G	5750	BODY	06/29/2020	21.9	22.9	0.050	1237	7538	3.580	75.900	71.600	-5.67%
G	5750	BODY	07/13/2020	23.0	22.1	0.050	1237	7538	3.660	75.900	73.200	-3.56%

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Table 10-8
System Verification Results – 10g

System Verification TARGET & MEASURED												
SAR System #	Tissue Frequency (MHz)	Tissue Type	Date	Amb. Temp (°C)	Liquid Temp (°C)	Input Power (W)	Source SN	Probe SN	Measured SAR_{10g} (W/kg)	1 W Target SAR_{10g} (W/kg)	1 W Normalized SAR_{10g} (W/kg)	$Deviation_{10g}$ (%)
P	1750	BODY	07/15/2020	23.1	21.9	0.100	1150	7551	1.970	19.400	19.700	1.55%
P	1750	BODY	07/19/2020	23.5	21.3	0.100	1150	7551	2.070	19.400	20.700	6.70%
I	1750	BODY	07/22/2020	21.2	21.5	0.100	1008	7570	2.080	19.900	20.800	4.52%
J	1900	BODY	07/04/2020	22.1	23.5	0.100	5d149	7571	2.190	20.700	21.900	5.80%
J	1900	BODY	07/06/2020	22.5	23.0	0.100	5d080	7571	2.190	20.600	21.900	6.31%
J	1900	BODY	07/09/2020	23.1	23.5	0.100	5d149	7571	2.230	20.700	22.300	7.73%
J	1900	BODY	07/11/2020	23.4	23.6	0.100	5d080	7571	2.180	20.600	21.800	5.83%
J	1900	BODY	07/22/2020	22.7	23.5	0.100	5d080	7571	2.210	20.600	22.100	7.28%
J	1900	BODY	07/30/2020	21.7	21.4	0.100	5d080	7571	2.060	20.600	20.600	0.00%
O	2450	BODY	07/18/2020	23.9	22.8	0.100	981	7552	2.270	24.200	22.700	-6.20%
O	2600	BODY	07/18/2020	23.9	22.8	0.100	1004	7552	2.570	24.700	25.700	4.05%
G	5250	BODY	07/05/2020	24.0	22.0	0.050	1237	7538	1.060	21.200	21.200	0.00%
G	5600	BODY	07/05/2020	24.0	22.0	0.050	1237	7538	1.100	22.000	22.000	0.00%
G	5750	BODY	07/05/2020	24.0	22.0	0.050	1237	7538	1.000	21.200	20.000	-5.66%

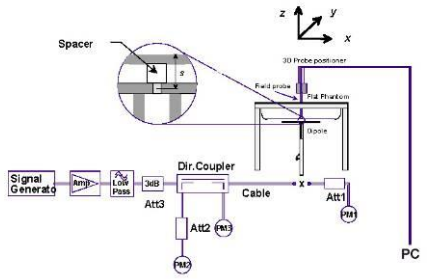

Figure 10-1
System Verification Setup Diagram

Figure 10-2
System Verification Setup Photo

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11 SAR DATA SUMMARY

11.1 Standalone Head SAR Data

Table 11-1
CDMA BC10 (§90S) Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	24.7	24.70	0.19	Right	Cheek	00342	1:1	0.078	1.000	0.078	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	24.7	24.70	0.13	Right	Tilt	00342	1:1	0.050	1.000	0.050	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	24.7	24.70	0.12	Left	Cheek	00342	1:1	0.101	1.000	0.101	
820.10	564	CDMA BC10 (§90S)	RC3 / SO55	24.7	24.70	0.15	Left	Tilt	00342	1:1	0.040	1.000	0.040	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	24.7	24.66	0.08	Right	Cheek	00342	1:1	0.079	1.009	0.080	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	24.7	24.66	0.10	Right	Tilt	00342	1:1	0.047	1.009	0.047	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	24.7	24.66	0.18	Left	Cheek	00342	1:1	0.105	1.009	0.106	A1
820.10	564	CDMA BC10 (§90S)	EVDO Rev. A	24.7	24.66	0.15	Left	Tilt	00342	1:1	0.039	1.009	0.039	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-2
CDMA BC0 (§22H) Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	24.7	24.64	0.14	Right	Cheek	00342	1:1	0.086	1.014	0.087	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	24.7	24.64	0.14	Right	Tilt	00342	1:1	0.048	1.014	0.049	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	24.7	24.64	-0.21	Left	Cheek	00342	1:1	0.105	1.014	0.106	
836.52	384	CDMA BC0 (§22H)	RC3 / SO55	24.7	24.64	0.07	Left	Tilt	00342	1:1	0.041	1.014	0.042	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	24.7	24.67	0.16	Right	Cheek	00342	1:1	0.086	1.007	0.087	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	24.7	24.67	-0.10	Right	Tilt	00342	1:1	0.047	1.007	0.047	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	24.7	24.67	0.07	Left	Cheek	00342	1:1	0.107	1.007	0.108	A2
836.52	384	CDMA BC0 (§22H)	EVDO Rev. A	24.7	24.67	0.19	Left	Tilt	00342	1:1	0.038	1.007	0.038	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

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Table 11-3
PCS CDMA Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1880.00	600	PCS CDMA	RC3 / SO55	24.7	24.69	0.09	Right	Cheek	00342	1:1	0.098	1.002	0.098	
1880.00	600	PCS CDMA	RC3 / SO55	24.7	24.69	0.11	Right	Tilt	00342	1:1	0.042	1.002	0.042	
1880.00	600	PCS CDMA	RC3 / SO55	24.7	24.69	0.10	Left	Cheek	00342	1:1	0.070	1.002	0.070	
1880.00	600	PCS CDMA	RC3 / SO55	24.7	24.69	0.10	Left	Tilt	00342	1:1	0.047	1.002	0.047	
1880.00	600	PCS CDMA	EVDO Rev. A	24.7	24.57	-0.08	Right	Cheek	00342	1:1	0.103	1.030	0.106	A3
1880.00	600	PCS CDMA	EVDO Rev. A	24.7	24.57	0.15	Right	Tilt	00342	1:1	0.041	1.030	0.042	
1880.00	600	PCS CDMA	EVDO Rev. A	24.7	24.57	0.11	Left	Cheek	00342	1:1	0.063	1.030	0.065	
1880.00	600	PCS CDMA	EVDO Rev. A	24.7	24.57	0.19	Left	Tilt	00342	1:1	0.043	1.030	0.044	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-4
GSM 850 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	# of Time Slots	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
836.60	190	GSM 850	GSM	33.7	32.93	0.13	Right	Cheek	00342	1	1:8.3	0.081	1.194	0.097	
836.60	190	GSM 850	GSM	33.7	32.93	0.17	Right	Tilt	00342	1	1:8.3	0.047	1.194	0.056	
836.60	190	GSM 850	GSM	33.7	32.93	0.00	Left	Cheek	00342	1	1:8.3	0.100	1.194	0.119	
836.60	190	GSM 850	GSM	33.7	32.93	0.14	Left	Tilt	00342	1	1:8.3	0.050	1.194	0.060	
836.60	190	GSM 850	GPRS	29.2	28.71	0.18	Right	Cheek	00342	4	1:2.076	0.103	1.119	0.115	
836.60	190	GSM 850	GPRS	29.2	28.71	0.11	Right	Tilt	00342	4	1:2.076	0.056	1.119	0.063	
836.60	190	GSM 850	GPRS	29.2	28.71	0.14	Left	Cheek	00342	4	1:2.076	0.140	1.119	0.157	A4
836.60	190	GSM 850	GPRS	29.2	28.71	0.11	Left	Tilt	00342	4	1:2.076	0.067	1.119	0.075	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

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Table 11-5
GSM 1900 Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	# of Time Slots	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
1880.00	661	GSM 1900	GSM	30.7	30.20	0.19	Right	Cheek	00342	1	1:8.3	0.034	1.122	0.038	
1880.00	661	GSM 1900	GSM	30.7	30.20	0.18	Right	Tilt	00342	1	1:8.3	0.010	1.122	0.011	
1880.00	661	GSM 1900	GSM	30.7	30.20	0.15	Left	Cheek	00342	1	1:8.3	0.020	1.122	0.022	
1880.00	661	GSM 1900	GSM	30.7	30.20	0.16	Left	Tilt	00342	1	1:8.3	0.015	1.122	0.017	
1880.00	661	GSM 1900	GPRS	27.2	26.85	0.16	Right	Cheek	00342	3	1:2.76	0.050	1.084	0.054	A5
1880.00	661	GSM 1900	GPRS	27.2	26.85	0.07	Right	Tilt	00342	3	1:2.76	0.017	1.084	0.018	
1880.00	661	GSM 1900	GPRS	27.2	26.85	0.11	Left	Cheek	00342	3	1:2.76	0.034	1.084	0.037	
1880.00	661	GSM 1900	GPRS	27.2	26.85	0.17	Left	Tilt	00342	3	1:2.76	0.024	1.084	0.026	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-6
UMTS 850 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
836.60	4183	UMTS 850	RMC	24.7	24.29	0.04	Right	Cheek	00342	1:1	0.085	1.099	0.093	
836.60	4183	UMTS 850	RMC	24.7	24.29	0.08	Right	Tilt	00342	1:1	0.048	1.099	0.053	
836.60	4183	UMTS 850	RMC	24.7	24.29	0.13	Left	Cheek	00342	1:1	0.098	1.099	0.108	A6
836.60	4183	UMTS 850	RMC	24.7	24.29	0.12	Left	Tilt	00342	1:1	0.036	1.099	0.040	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-7
UMTS 1750 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	0.07	Right	Cheek	00342	1:1	0.115	1.072	0.123	A7
1732.40	1412	UMTS 1750	RMC	24.7	24.40	0.17	Right	Tilt	00342	1:1	0.073	1.072	0.078	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	0.13	Left	Cheek	00342	1:1	0.062	1.072	0.066	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	0.10	Left	Tilt	00342	1:1	0.071	1.072	0.076	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

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Table 11-8
UMTS 1900 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.										(W/kg)		(W/kg)	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.16	Right	Cheek	00342	1:1	0.098	1.074	0.105	A8
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.17	Right	Tilt	00342	1:1	0.043	1.074	0.046	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.09	Left	Cheek	00342	1:1	0.069	1.074	0.074	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.15	Left	Tilt	00342	1:1	0.046	1.074	0.049	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Head 1.6 W/kg (mW/g) averaged over 1 gram							

Table 11-9
LTE Band 71 Head SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	0.09	0	Right	Cheek	QPSK	1	0	00367	1:1	0.065	1.094	0.071	
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	0.15	1	Right	Cheek	QPSK	50	25	00367	1:1	0.060	1.076	0.065	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	0.15	0	Right	Tilt	QPSK	1	0	00367	1:1	0.033	1.094	0.036	
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	0.19	1	Right	Tilt	QPSK	50	25	00367	1:1	0.021	1.076	0.023	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	-0.08	0	Left	Cheek	QPSK	1	0	00367	1:1	0.071	1.094	0.078	A9
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	0.12	1	Left	Cheek	QPSK	50	25	00367	1:1	0.051	1.076	0.055	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	0.12	0	Left	Tilt	QPSK	1	0	00367	1:1	0.028	1.094	0.031	
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	0.16	1	Left	Tilt	QPSK	50	25	00367	1:1	0.013	1.076	0.014	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Head 1.6 W/kg (mW/g) averaged over 1 gram													

Table 11-10
LTE Band 12 Head SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	0.12	0	Right	Cheek	QPSK	1	25	00375	1:1	0.100	1.067	0.107	A10
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	0.16	1	Right	Cheek	QPSK	25	0	00375	1:1	0.084	1.047	0.088	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	0.05	0	Right	Tilt	QPSK	1	25	00375	1:1	0.041	1.067	0.044	
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	0.12	1	Right	Tilt	QPSK	25	0	00375	1:1	0.038	1.047	0.040	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	0.17	0	Left	Cheek	QPSK	1	25	00375	1:1	0.091	1.067	0.097	
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	0.15	1	Left	Cheek	QPSK	25	0	00375	1:1	0.082	1.047	0.086	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	0.13	0	Left	Tilt	QPSK	1	25	00375	1:1	0.036	1.067	0.038	
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	0.10	1	Left	Tilt	QPSK	25	0	00375	1:1	0.032	1.047	0.034	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population						Head 1.6 W/kg (mW/g) averaged over 1 gram													

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Table 11-11
LTE Band 13 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	0.09	0	Right	Cheek	QPSK	1	25	00375	1:1	0.085	1.109	0.094	
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	0.15	1	Right	Cheek	QPSK	25	12	00375	1:1	0.066	1.086	0.072	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	-0.02	0	Right	Tilt	QPSK	1	25	00375	1:1	0.048	1.109	0.053	
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	0.16	1	Right	Tilt	QPSK	25	12	00375	1:1	0.039	1.086	0.042	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	-0.07	0	Left	Cheek	QPSK	1	25	00375	1:1	0.087	1.109	0.096	A11
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	0.10	1	Left	Cheek	QPSK	25	12	00375	1:1	0.064	1.086	0.070	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	0.18	0	Left	Tilt	QPSK	1	25	00375	1:1	0.029	1.109	0.032	
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	0.11	1	Left	Tilt	QPSK	25	12	00375	1:1	0.028	1.086	0.030	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-12
LTE Band 26 (Cell) Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	0.12	0	Right	Cheek	QPSK	1	36	00367	1:1	0.087	1.084	0.094	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	0.17	1	Right	Cheek	QPSK	36	37	00367	1:1	0.075	1.052	0.079	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	0.14	0	Right	Tilt	QPSK	1	36	00367	1:1	0.051	1.084	0.055	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	0.11	1	Right	Tilt	QPSK	36	37	00367	1:1	0.043	1.052	0.045	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	0.13	0	Left	Cheek	QPSK	1	36	00367	1:1	0.112	1.084	0.121	A12
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	0.15	1	Left	Cheek	QPSK	36	37	00367	1:1	0.082	1.052	0.086	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	0.17	0	Left	Tilt	QPSK	1	36	00367	1:1	0.045	1.084	0.049	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	0.21	1	Left	Tilt	QPSK	36	37	00367	1:1	0.034	1.052	0.036	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-13
LTE Band 66 (AWS) Head SAR – Ant 2

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	25.2	25.20	-0.12	0	Right	Cheek	QPSK	1	50	00375	1:1	0.110	1.000	0.110	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	24.2	24.20	0.13	1	Right	Cheek	QPSK	50	25	00375	1:1	0.090	1.000	0.090	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	25.2	25.20	0.14	0	Right	Tilt	QPSK	1	50	00375	1:1	0.074	1.000	0.074	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	24.2	24.20	0.13	1	Right	Tilt	QPSK	50	25	00375	1:1	0.056	1.000	0.056	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	25.2	25.20	0.20	0	Left	Cheek	QPSK	1	50	00375	1:1	0.070	1.000	0.070	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	24.2	24.20	0.12	1	Left	Cheek	QPSK	50	25	00375	1:1	0.056	1.000	0.056	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	25.2	25.20	0.08	0	Left	Tilt	QPSK	1	50	00375	1:1	0.081	1.000	0.081	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	24.2	24.20	0.11	1	Left	Tilt	QPSK	50	25	00375	1:1	0.060	1.000	0.060	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram			

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Table 11-14
LTE Band 66 (AWS) Head SAR – Ant 3

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1720.00	132072	Low	LTE Band 66 (AWS)	20	23.5	23.47	0.11	0	Right	Cheek	QPSK	1	99	00318	1:1	0.134	1.007	0.135	A13
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.5	22.37	0.06	1	Right	Cheek	QPSK	50	0	00318	1:1	0.105	1.030	0.108	
1720.00	132072	Low	LTE Band 66 (AWS)	20	23.5	23.47	0.04	0	Right	Tilt	QPSK	1	99	00318	1:1	0.061	1.007	0.061	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.5	22.37	0.21	1	Right	Tilt	QPSK	50	0	00318	1:1	0.046	1.030	0.047	
1720.00	132072	Low	LTE Band 66 (AWS)	20	23.5	23.47	0.07	0	Left	Cheek	QPSK	1	99	00318	1:1	0.075	1.007	0.076	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.5	22.37	0.10	1	Left	Cheek	QPSK	50	0	00318	1:1	0.056	1.030	0.058	
1720.00	132072	Low	LTE Band 66 (AWS)	20	23.5	23.47	-0.04	0	Left	Tilt	QPSK	1	99	00318	1:1	0.047	1.007	0.047	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.5	22.37	-0.08	1	Left	Tilt	QPSK	50	0	00318	1:1	0.036	1.030	0.037	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-15
LTE Band 25 (PCS) Head SAR – Ant 2

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1905.00	26590	High	LTE Band 25 (PCS)	20	25.2	25.01	-0.05	0	Right	Cheek	QPSK	1	50	00383	1:1	0.083	1.045	0.087	A14
1905.00	26590	High	LTE Band 25 (PCS)	20	24.2	23.88	0.15	1	Right	Cheek	QPSK	50	0	00383	1:1	0.074	1.076	0.080	
1905.00	26590	High	LTE Band 25 (PCS)	20	25.2	25.01	0.16	0	Right	Tilt	QPSK	1	50	00383	1:1	0.035	1.045	0.037	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.2	23.88	0.13	1	Right	Tilt	QPSK	50	0	00383	1:1	0.027	1.076	0.029	
1905.00	26590	High	LTE Band 25 (PCS)	20	25.2	25.01	0.17	0	Left	Cheek	QPSK	1	50	00383	1:1	0.078	1.045	0.082	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.2	23.88	0.08	1	Left	Cheek	QPSK	50	0	00383	1:1	0.061	1.076	0.066	
1905.00	26590	High	LTE Band 25 (PCS)	20	25.2	25.01	0.18	0	Left	Tilt	QPSK	1	50	00383	1:1	0.037	1.045	0.039	
1905.00	26590	High	LTE Band 25 (PCS)	20	24.2	23.88	0.12	1	Left	Tilt	QPSK	50	0	00383	1:1	0.031	1.076	0.033	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram			

Table 11-16
LTE Band 2 (PCS) Head SAR – Ant 3

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1900.00	19100	High	LTE Band 2 (PCS)	20	23.5	22.94	0.09	0	Right	Cheek	QPSK	1	99	00375	1:1	0.165	1.138	0.188	A15
1900.00	19100	High	LTE Band 2 (PCS)	20	22.5	22.00	0.13	1	Right	Cheek	QPSK	50	25	00375	1:1	0.156	1.122	0.175	
1900.00	19100	High	LTE Band 2 (PCS)	20	23.5	22.94	0.00	0	Right	Tilt	QPSK	1	99	00375	1:1	0.069	1.138	0.079	
1900.00	19100	High	LTE Band 2 (PCS)	20	22.5	22.00	0.13	1	Right	Tilt	QPSK	50	25	00375	1:1	0.069	1.122	0.077	
1900.00	19100	High	LTE Band 2 (PCS)	20	23.5	22.94	0.10	0	Left	Cheek	QPSK	1	99	00375	1:1	0.109	1.138	0.124	
1900.00	19100	High	LTE Band 2 (PCS)	20	22.5	22.00	0.18	1	Left	Cheek	QPSK	50	25	00375	1:1	0.095	1.122	0.107	
1900.00	19100	High	LTE Band 2 (PCS)	20	23.5	22.94	0.12	0	Left	Tilt	QPSK	1	99	00375	1:1	0.096	1.138	0.109	
1900.00	19100	High	LTE Band 2 (PCS)	20	22.5	22.00	0.04	1	Left	Tilt	QPSK	50	25	00375	1:1	0.093	1.122	0.104	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Head 1.6 W/kg (mW/g) averaged over 1 gram			

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Table 11-17
LTE Band 41 Head SAR

MEASUREMENT RESULTS																						
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Modulation	RB Size	RB Offset	Device Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																		
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.2	25.13	0.15	0	Right	Cheek	QPSK	1	50	00383	1:1.58	0.042	1.016	0.043	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.2	24.13	0.15	1	Right	Cheek	QPSK	50	25	00383	1:1.58	0.030	1.016	0.030	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.2	25.13	0.14	0	Right	Tilt	QPSK	1	50	00383	1:1.58	0.015	1.016	0.015	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.2	24.13	0.11	1	Right	Tilt	QPSK	50	25	00383	1:1.58	0.013	1.016	0.013	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.2	25.01	0.04	0	Left	Cheek	QPSK	1	0	00425	1:1.58	0.078	1.045	0.082	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.2	25.13	-0.16	0	Left	Cheek	QPSK	1	50	00425	1:1.58	0.077	1.016	0.078	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.2	24.13	0.15	1	Left	Cheek	QPSK	50	25	00425	1:1.58	0.046	1.016	0.047	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.7	26.91	0.11	0	Left	Cheek	QPSK	1	0	00425	1:2.31	0.078	1.199	0.094	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.7	27.05	-0.08	0	Left	Cheek	QPSK	1	50	00425	1:2.31	0.078	1.161	0.091	A16
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	25.2	24.15	-0.01	0	Left	Cheek	QPSK	1	0	00425	1:1.58	0.066	1.274	0.084	
	SCC	2573.20	40422	Mid									QPSK	1	99						
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	27.7	26.11	0.14	0	Left	Cheek	QPSK	1	0	00425	1:2.31	0.067	1.442	0.097	
	SCC	2573.20	40422	Mid									QPSK	1	99						
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.2	25.13	0.08	0	Left	Tilt	QPSK	1	50	00383	1:1.58	0.023	1.016	0.023	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.2	24.13	0.15	1	Left	Tilt	QPSK	50	25	00383	1:1.58	0.016	1.016	0.016	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Head 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11-18
NR Band n71 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Waveform	Modulation	RB Size	RB Offset	Serial Number	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.21	0	Right	Cheek	DFT-S-OFDM	QPSK	1	53	00391	1:1	0.080	1.138	0.091	A17
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.03	0	Right	Cheek	DFT-S-OFDM	QPSK	50	28	00391	1:1	0.077	1.138	0.088	
680.50	136100	Mid	NR Band n71	20	24.2	23.16	0.00	1.5	Right	Cheek	CP-OFDM	QPSK	1	1	00391	1:1	0.050	1.271	0.064	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.15	0	Right	Tilt	DFT-S-OFDM	QPSK	1	53	00391	1:1	0.033	1.138	0.038	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.20	0	Right	Tilt	DFT-S-OFDM	QPSK	50	28	00391	1:1	0.033	1.138	0.038	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.09	0	Left	Cheek	DFT-S-OFDM	QPSK	1	53	00391	1:1	0.076	1.138	0.086	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.11	0	Left	Cheek	DFT-S-OFDM	QPSK	50	28	00391	1:1	0.071	1.138	0.081	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.11	0	Left	Tilt	DFT-S-OFDM	QPSK	1	53	00391	1:1	0.028	1.138	0.032	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.18	0	Left	Tilt	DFT-S-OFDM	QPSK	50	28	00391	1:1	0.027	1.138	0.031	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Head 1.6 W/kg (mW/g) averaged over 1 gram								

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Table 11-19
NR Band n66 (AWS) Antenna 2 Standalone Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Waveform	Modulation	RB Size	RB Offset	Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.14	0.19	0	Right	Cheek	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.103	1.014	0.104	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.12	0.16	0	Right	Cheek	DFT-S-OFDM	QPSK	108	108	00391	1:1	0.115	1.019	0.117	
1745.00	349000	Mid	NR Band n66 (AWS)	40	23.7	23.38	-0.04	1.5	Right	Cheek	CP-OFDM	QPSK	1	1	00391	1:1	0.094	1.076	0.101	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.14	0.09	0	Right	Tilt	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.079	1.014	0.080	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.12	0.17	0	Right	Tilt	DFT-S-OFDM	QPSK	108	108	00391	1:1	0.063	1.019	0.064	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.14	0.09	0	Left	Cheek	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.074	1.014	0.075	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.12	0.17	0	Left	Cheek	DFT-S-OFDM	QPSK	108	108	00391	1:1	0.071	1.019	0.072	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.14	0.12	0	Left	Tilt	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.085	1.014	0.086	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.12	0.15	0	Left	Tilt	DFT-S-OFDM	QPSK	108	108	00391	1:1	0.069	1.019	0.070	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-20
NR Band n66 (AWS) Antenna 3 Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Waveform	Modulation	RB Size	RB Offset	Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.60	0.13	0	Right	Cheek	DFT-S-OFDM	QPSK	1	108	00409	1:1	0.183	1.023	0.187	A18
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.55	0.04	0	Right	Cheek	DFT-S-OFDM	QPSK	108	54	00409	1:1	0.176	1.035	0.182	
1745.00	349000	Mid	NR Band n66 (AWS)	40	24.2	23.70	0.09	1.5	Right	Cheek	CP-OFDM	QPSK	1	1	00409	1:1	0.096	1.122	0.108	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.60	0.13	0	Right	Tilt	DFT-S-OFDM	QPSK	1	108	00409	1:1	0.085	1.023	0.087	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.55	0.12	0	Right	Tilt	DFT-S-OFDM	QPSK	108	54	00409	1:1	0.084	1.035	0.087	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.60	0.06	0	Left	Cheek	DFT-S-OFDM	QPSK	1	108	00409	1:1	0.096	1.023	0.098	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.55	0.10	0	Left	Cheek	DFT-S-OFDM	QPSK	108	54	00409	1:1	0.093	1.035	0.096	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.60	0.12	0	Left	Tilt	DFT-S-OFDM	QPSK	1	108	00409	1:1	0.075	1.023	0.077	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.55	0.19	0	Left	Tilt	DFT-S-OFDM	QPSK	108	54	00409	1:1	0.081	1.035	0.084	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram										

Table 11-21
NR Band n25 (PCS) Antenna 2 Standalone Head SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Waveform	Modulation	RB Size	RB Offset	Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.96	0.19	0	Right	Cheek	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.092	1.057	0.097	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.93	0.16	0	Right	Cheek	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.098	1.064	0.104	
1882.50	376500	Mid	NR Band n25 (PCS)	40	23.7	23.03	0.09	1.5	Right	Cheek	CP-OFDM	QPSK	1	1	00391	1:1	0.049	1.167	0.057	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.96	0.19	0	Right	Tilt	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.034	1.057	0.036	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.93	0.14	0	Right	Tilt	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.033	1.064	0.035	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.96	0.15	0	Left	Cheek	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.079	1.057	0.084	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.93	0.14	0	Left	Cheek	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.078	1.064	0.083	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.96	-0.12	0	Left	Tilt	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.030	1.057	0.032	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.93	0.19	0	Left	Tilt	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.034	1.064	0.036	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Head 1.6 W/kg (mW/g) averaged over 1 gram										

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Table 11-22
NR Band n25 (PCS) Antenna 3 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Waveform	Modulation	RB Size	RB Offset	Serial Number	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.63	0.05	0	Right	Cheek	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.217	1.016	0.220	A19
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.58	0.09	0	Right	Cheek	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.217	1.028	**0.223**	
1882.50	376500	Mid	NR Band n25 (PCS)	40	24.2	23.66	0.15	1.5	Right	Cheek	CP-OFDM	QPSK	1	1	00391	1:1	0.147	1.132	0.166	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.63	0.13	0	Right	Tilt	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.105	1.016	0.107	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.58	0.07	0	Right	Tilt	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.104	1.028	0.107	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.63	0.18	0	Left	Cheek	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.115	1.016	0.117	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.58	0.10	0	Left	Cheek	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.120	1.028	0.123	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.63	0.05	0	Left	Tilt	DFT-S-OFDM	QPSK	1	108	00391	1:1	0.137	1.016	0.139	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.58	0.09	0	Left	Tilt	DFT-S-OFDM	QPSK	108	54	00391	1:1	0.132	1.028	0.136	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**													**Head** **1.6 W/kg (mW/g)** averaged over 1 gram							

Table 11-23
NR Band n41 Head SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Side	Test Position	Waveform	Modulation	RB Size	RB Offset	Serial Number	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)			(W/kg)	
2592.99	518598	Mid	NR Band n41	100	27.7	27.19	0.18	0	Right	Cheek	DFT-S-OFDM	QPSK	1	137	00391	21.43	0.038	1.125	1.010	0.043	
2592.99	518598	Mid	NR Band n41	100	27.7	27.10	0.07	0	Right	Cheek	DFT-S-OFDM	QPSK	135	69	00391	21.43	0.040	1.148	1.010	0.046	A20
2592.99	518598	Mid	NR Band n41	100	26.2	24.83	0.14	1.5	Right	Cheek	CP-OFDM	QPSK	1	1	00391	21.43	0.010	1.371	1.010	0.014	
2592.99	518598	Mid	NR Band n41	100	27.7	27.19	0.13	0	Right	Tilt	DFT-S-OFDM	QPSK	1	137	00391	21.43	0.010	1.125	1.010	0.011	
2592.99	518598	Mid	NR Band n41	100	27.7	27.10	0.10	0	Right	Tilt	DFT-S-OFDM	QPSK	135	69	00391	21.43	0.011	1.148	1.010	0.013	
2592.99	518598	Mid	NR Band n41	100	27.7	27.19	0.11	0	Left	Cheek	DFT-S-OFDM	QPSK	1	137	00391	21.43	0.032	1.125	1.010	0.036	
2592.99	518598	Mid	NR Band n41	100	27.7	27.10	-0.01	0	Left	Cheek	DFT-S-OFDM	QPSK	135	69	00391	21.43	0.039	1.148	1.010	0.045	
2592.99	518598	Mid	NR Band n41	100	27.7	27.19	-0.08	0	Left	Tilt	DFT-S-OFDM	QPSK	1	137	00391	21.43	0.013	1.125	1.010	0.015	
2592.99	518598	Mid	NR Band n41	100	27.7	27.10	0.19	0	Left	Tilt	DFT-S-OFDM	QPSK	135	69	00391	21.43	0.011	1.148	1.010	0.013	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**													**Head** **1.6 W/kg (mW/g)** averaged over 1 gram							

Note: The reported SAR was scaled to the 23.57% transmission duty factor to determine compliance since the duty factor of the device is permanently limited to 23.57% per the manufacturer.

Table 11-24
DTS Head SAR

MEASUREMENT RESULTS																				
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	15.0	14.78	0.11	Right	Cheek	1	00219	1	99.7	0.681	0.223	1.052	1.003	**0.235**	A21
2412	1	802.11b	DSSS	22	15.0	14.78	-0.14	Right	Tilt	1	00219	1	99.7	0.576	-	1.052	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.78	0.18	Left	Cheek	1	00219	1	99.7	0.149	-	1.052	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.78	0.19	Left	Tilt	1	00219	1	99.7	0.167	-	1.052	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.74	0.18	Right	Cheek	2	00219	1	99.7	0.351	0.212	1.062	1.003	0.226	
2412	1	802.11b	DSSS	22	15.0	14.74	0.11	Right	Tilt	2	00219	1	99.7	0.276	-	1.062	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.74	-0.10	Left	Cheek	2	00219	1	99.7	0.195	-	1.062	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.74	0.05	Left	Tilt	2	00219	1	99.7	0.156	-	1.062	1.003	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**														**Head** **1.6 W/kg (mW/g)** averaged over 1 gram					

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Table 11-25
NII Head SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Antenna Config.	Dual Display Position	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.														W/kg	(W/kg)			(W/kg)	
5280	56	802.11a	OFDM	20	17.0	16.91	0.12	Right	Cheek	1	-	00201	6	97.6	0.519	0.186	1.021	1.025	0.195	
5280	56	802.11a	OFDM	20	17.0	16.91	0.11	Right	Tilt	1	-	00201	6	97.6	0.487	-	1.021	1.025	-	
5280	56	802.11a	OFDM	20	17.0	16.91	0.15	Left	Cheek	1	-	00201	6	97.6	0.259	-	1.021	1.025	-	
5280	56	802.11a	OFDM	20	17.0	16.91	0.11	Left	Tilt	1	-	00201	6	97.6	0.288	-	1.021	1.025	-	
5280	56	802.11a	OFDM	20	17.0	16.90	0.15	Right	Cheek	2	-	00201	6	97.8	0.142	0.049	1.023	1.022	0.051	
5280	56	802.11a	OFDM	20	17.0	16.90	0.19	Right	Tilt	2	-	00201	6	97.8	0.046	-	1.023	1.022	-	
5280	56	802.11a	OFDM	20	17.0	16.90	0.18	Left	Cheek	2	-	00201	6	97.8	0.062	-	1.023	1.022	-	
5280	56	802.11a	OFDM	20	17.0	16.90	0.19	Left	Tilt	2	-	00201	6	97.8	0.084	-	1.023	1.022	-	
5630	126	802.11n	OFDM	40	15.0	14.85	0.04	Right	Cheek	1	-	00201	13.5	95.0	0.219	-	1.035	1.053	-	
5630	126	802.11n	OFDM	40	15.0	14.85	0.14	Right	Tilt	1	-	00201	13.5	95.0	0.245	0.114	1.035	1.053	0.124	
5630	126	802.11n	OFDM	40	15.0	14.85	-0.03	Left	Cheek	1	-	00201	13.5	95.0	0.184	-	1.035	1.053	-	
5630	126	802.11n	OFDM	40	15.0	14.85	0.13	Left	Tilt	1	-	00201	13.5	95.0	0.195	-	1.035	1.053	-	
5550	110	802.11n	OFDM	40	15.0	14.94	0.13	Right	Cheek	2	-	00201	13.5	95.2	0.278	0.131	1.014	1.050	0.139	
5550	110	802.11n	OFDM	40	15.0	14.94	0.13	Right	Tilt	2	-	00201	13.5	95.2	0.144	-	1.014	1.050	-	
5550	110	802.11n	OFDM	40	15.0	14.94	0.19	Left	Cheek	2	-	00201	13.5	95.2	0.134	-	1.014	1.050	-	
5550	110	802.11n	OFDM	40	15.0	14.94	0.18	Left	Tilt	2	-	00201	13.5	95.2	0.088	-	1.014	1.050	-	
5825	165	802.11a	OFDM	20	17.0	16.72	0.17	Right	Cheek	1	-	00201	6	97.6	0.256	-	1.067	1.025	-	
5825	165	802.11a	OFDM	20	17.0	16.72	0.17	Right	Tilt	1	-	00201	6	97.6	0.315	0.117	1.067	1.025	0.128	
5825	165	802.11a	OFDM	20	17.0	16.72	0.09	Left	Cheek	1	-	00201	6	97.6	0.233	-	1.067	1.025	-	
5825	165	802.11a	OFDM	20	17.0	16.72	0.08	Left	Tilt	1	-	00201	6	97.6	0.274	-	1.067	1.025	-	
5785	157	802.11a	OFDM	20	17.0	16.80	0.08	Right	Cheek	2	-	00201	6	97.8	0.448	0.225	1.047	1.022	0.241	
5785	157	802.11a	OFDM	20	17.0	16.80	0.19	Right	Cheek	2	1	00201	6	97.8	0.141	0.053	1.047	1.022	0.057	
5785	157	802.11a	OFDM	20	17.0	16.80	0.18	Right	Cheek	2	3	00201	6	97.8	0.531	0.248	1.047	1.022	**0.265**	A22
5785	157	802.11a	OFDM	20	17.0	16.80	0.10	Right	Tilt	2	-	00201	6	97.8	0.322	-	1.047	1.022	-	
5785	157	802.11a	OFDM	20	17.0	16.80	0.09	Left	Cheek	2	-	00201	6	97.8	0.266	-	1.047	1.022	-	
5785	157	802.11a	OFDM	20	17.0	16.80	0.03	Left	Tilt	2	-	00201	6	97.8	0.195	-	1.047	1.022	-	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Head
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Note: 1) Green entries represent additional Head SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Head SAR Position (DD #3: 360 degrees)

Table 11-26
DSS Head SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Side	Test Position	Device Serial Number	Data Rate (Mbps)	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2441.00	39	Bluetooth	FHSS	11.0	10.38	0.06	Right	Cheek	00201	1	77.1	0.017	1.153	1.297	**0.025**	A23
2441.00	39	Bluetooth	FHSS	11.0	10.38	0.12	Right	Tilt	00201	1	77.1	0.015	1.153	1.297	0.022	
2441.00	39	Bluetooth	FHSS	11.0	10.38	-0.15	Left	Cheek	00201	1	77.1	0.003	1.153	1.297	0.004	
2441.00	39	Bluetooth	FHSS	11.0	10.38	-0.10	Left	Tilt	00201	1	77.1	0.003	1.153	1.297	0.004	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Head
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

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11.2 Standalone Body-Worn SAR Data

Table 11-27
GSM/UMTS/CDMA Body-Worn SAR Data

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	TDSO / SO32	24.7	24.64	-0.02	10 mm	00342	N/A	1:1	back	0.320	1.014	0.324	A24
836.52	384	CDMA BC0 (§22H)	TDSO / SO32	24.7	24.67	-0.01	10 mm	00342	N/A	1:1	back	0.360	1.007	0.363	A26
1851.25	25	PCS CDMA	TDSO / SO32	24.7	24.62	0.07	10 mm	00359	N/A	1:1	back	0.627	1.019	0.639	
1880.00	600	PCS CDMA	TDSO / SO32	24.7	24.65	0.16	10 mm	00359	N/A	1:1	back	0.594	1.012	0.601	
1908.75	1175	PCS CDMA	TDSO / SO32	24.7	24.61	0.18	10 mm	00359	N/A	1:1	back	0.659	1.021	0.673	A28
836.60	190	GSM 850	GSM	33.7	32.93	-0.05	10 mm	00342	1	1:8.3	back	0.350	1.194	0.418	
836.60	190	GSM 850	GPRS	29.2	28.71	0.00	10 mm	00342	4	1:2.076	back	0.450	1.119	0.504	A30
1880.00	661	GSM 1900	GSM	30.7	30.20	0.16	10 mm	00359	1	1:8.3	back	0.208	1.122	0.233	
1880.00	661	GSM 1900	GPRS	27.2	26.85	0.15	10 mm	00359	3	1:2.76	back	0.286	1.084	0.310	A32
836.60	4183	UMTS 850	RMC	24.7	24.29	-0.16	10 mm	00359	N/A	1:1	back	0.341	1.099	0.375	A34
1712.40	1312	UMTS 1750	RMC	24.7	24.36	0.01	10 mm	00342	N/A	1:1	back	0.742	1.081	0.802	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	0.00	10 mm	00342	N/A	1:1	back	0.751	1.072	0.805	
1752.60	1513	UMTS 1750	RMC	24.7	24.60	0.02	10 mm	00342	N/A	1:1	back	0.789	1.023	0.807	A36
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.10	10 mm	00342	N/A	1:1	back	0.547	1.074	0.587	A38
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram							

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Table 11-28
LTE Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	-	25.5	25.11	0.07	0	00367	QPSK	1	0	10 mm	back	1:1	0.261	1.094	0.286	A40
680.50	133297	Mid	LTE Band 71	20	-	24.5	24.18	0.19	1	00367	QPSK	50	25	10 mm	back	1:1	0.200	1.076	0.215	
707.50	23095	Mid	LTE Band 12	10	-	25.5	25.22	0.01	0	00383	QPSK	1	25	10 mm	back	1:1	0.323	1.067	0.345	A41
707.50	23095	Mid	LTE Band 12	10	-	24.5	24.30	0.03	1	00383	QPSK	25	0	10 mm	back	1:1	0.290	1.047	0.304	
782.00	23230	Mid	LTE Band 13	10	-	25.5	25.05	-0.06	0	00383	QPSK	1	25	10 mm	back	1:1	0.292	1.109	0.324	A42
782.00	23230	Mid	LTE Band 13	10	-	24.5	24.14	0.03	1	00383	QPSK	25	12	10 mm	back	1:1	0.260	1.086	0.282	
831.50	26865	Mid	LTE Band 26 (Cell)	15	-	25.5	25.15	0.01	0	00383	QPSK	1	36	10 mm	back	1:1	0.474	1.084	0.514	A43
831.50	26865	Mid	LTE Band 26 (Cell)	15	-	24.5	24.28	0.01	1	00383	QPSK	36	37	10 mm	back	1:1	0.380	1.052	0.400	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	25.2	25.03	-0.01	0	00367	QPSK	1	50	10 mm	back	1:1	0.922	1.040	0.959	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	25.2	25.20	-0.02	0	00367	QPSK	1	50	10 mm	back	1:1	0.950	1.000	0.950	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	25.2	25.18	-0.03	0	00367	QPSK	1	50	10 mm	back	1:1	0.955	1.005	**0.960**	A44
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	25.2	25.20	-0.14	0	00367	QPSK	1	50	10 mm	back	1:1	0.759	1.000	0.759	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	2	25.2	25.20	0.18	0	00367	QPSK	1	50	10 mm	back	1:1	0.913	1.000	0.913	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	3	25.2	25.20	0.01	0	00367	QPSK	1	50	10 mm	back	1:1	0.297	1.000	0.297	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	24.2	24.19	-0.03	1	00367	QPSK	50	25	10 mm	back	1:1	0.747	1.002	0.748	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	24.2	24.20	0.01	1	00367	QPSK	50	25	10 mm	back	1:1	0.769	1.000	0.769	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	24.2	24.19	0.02	1	00367	QPSK	50	25	10 mm	back	1:1	0.780	1.002	0.782	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	24.2	24.19	-0.01	1	00367	QPSK	100	0	10 mm	back	1:1	0.767	1.002	0.769	
1860.00	26140	Low	LTE Band 25 (PCS)	20	-	25.2	25.00	0.04	0	00367	QPSK	1	50	10 mm	back	1:1	0.781	1.047	0.818	A46
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	25.2	24.75	0.07	0	00367	QPSK	1	50	10 mm	back	1:1	0.724	1.109	0.803	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	25.2	25.01	0.07	0	00367	QPSK	1	50	10 mm	back	1:1	0.720	1.045	0.752	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	24.2	23.88	0.08	1	00367	QPSK	50	0	10 mm	back	1:1	0.630	1.076	0.678	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	24.2	23.73	0.09	1	00367	QPSK	100	0	10 mm	back	1:1	0.601	1.114	0.670	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram					

Note: 1) Green entries represent additional Body Worn SAR Position (DD #1: 0 degrees) 2) Purple entries represent additional Body Worn SAR Position (DD #2: 180 degrees) 3) Orange entries represent additional Body Worn SAR Position (DD #3: 360 degrees)

Table 11-29
LTE Body-Worn SAR – Ant 3

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
1720.00	132072	Low	LTE Band 66 (AWS)	20	23.5	23.47	0.01	0	00318	QPSK	1	99	10 mm	back	1:1	0.312	1.007	0.314	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	22.5	22.37	0.02	1	00318	QPSK	50	0	10 mm	back	1:1	0.249	1.030	0.256	
1900.00	19100	High	LTE Band 2 (PCS)	20	23.5	22.94	-0.18	0	00359	QPSK	1	99	10 mm	back	1:1	0.217	1.138	0.247	A48
1900.00	19100	High	LTE Band 2 (PCS)	20	22.5	22.00	0.06	1	00359	QPSK	50	25	10 mm	back	1:1	0.185	1.122	0.208	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram				

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Table 11-30
LTE B41 Body-Worn SAR

MEASUREMENT RESULTS																							
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
		MHz	Ch.																		
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.2	25.01	0.01	0	00383	QPSK	1	0	10 mm	back	1:1.58	0.444	1.045	0.464	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	25.2	25.13	-0.14	0	00383	QPSK	1	50	10 mm	back	1:1.58	0.447	1.016	0.454	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	24.2	24.13	-0.05	1	00383	QPSK	50	25	10 mm	back	1:1.58	0.333	1.016	0.338	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.7	26.91	0.00	0	00383	QPSK	1	0	10 mm	back	1:2.31	0.444	1.199	0.532	
1 CC Uplink - Power Class 2	N/A	2593.00	40620	Mid	LTE Band 41	20	27.7	27.05	-0.10	0	00383	QPSK	1	50	10 mm	back	1:2.31	0.464	1.161	0.539	A50
2 CC Uplink - Power Class 3	PCC	2593.00	40620	Mid	LTE Band 41	20	25.2	24.15	0.00	0	00383	QPSK	1	0	10 mm	back	1:1.58	0.380	1.274	0.484	
2 CC Uplink - Power Class 3	SCC	2573.20	40422	Mid		20						QPSK	1	99							
2 CC Uplink - Power Class 2	PCC	2593.00	40620	Mid	LTE Band 41	20	27.7	26.11	0.00	0	00383	QPSK	1	0	10 mm	back	1:2.31	0.380	1.442	0.548	
2 CC Uplink - Power Class 2	SCC	2573.20	40422	Mid		20						QPSK	1	99							
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram													

Table 11-31
NR Band n71 Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
680.50	136100	Mid	NR Band n71	20	25.7	25.14	-0.10	0	00409	DFT-S-OFDM	QPSK	1	53	10 mm	back	1:1	0.212	1.138	0.241	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	-0.11	0	00409	DFT-S-OFDM	QPSK	50	28	10 mm	back	1:1	0.214	1.138	0.244	A52
680.50	136100	Mid	NR Band n71	20	24.2	23.16	-0.01	1.5	00409	CP-OFDM	QPSK	1	1	10 mm	back	1:1	0.158	1.271	0.201	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram												

Table 11-32
NR Band n66 Standalone Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.14	0.05	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.933	1.014	0.946	A53
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.12	0.09	0	00391	DFT-S-OFDM	QPSK	108	108	10 mm	back	1:1	0.881	1.019	0.898	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.2	25.07	-0.17	0	00391	DFT-S-OFDM	QPSK	216	0	10 mm	back	1:1	0.886	1.030	0.913	
1745.00	349000	Mid	NR Band n66 (AWS)	40	23.7	23.38	-0.01	1.5	00391	CP-OFDM	QPSK	1	1	10 mm	back	1:1	0.524	1.076	0.564	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram												

Table 11-33
NR Band n25 Standalone Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.96	0.15	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.561	1.057	0.593	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.2	24.93	0.15	0	00409	DFT-S-OFDM	QPSK	108	54	10 mm	back	1:1	0.573	1.064	0.610	A55
1882.50	376500	Mid	NR Band n25 (PCS)	40	23.7	23.03	0.14	1.5	00409	CP-OFDM	QPSK	1	1	10 mm	back	1:1	0.381	1.167	0.445	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram												

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Table 11-34
NR Band n41 Standalone Body-Worn SAR

MEASUREMENT RESULTS																							
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)			(W/kg)	
2592.99	518598	Mid	NR Band n41	100	27.7	27.19	0.12	0	00409	DFT-S-OFDM	QPSK	1	137	10 mm	back	21.43	0.221	1.125	1.010	0.251	A57
2592.99	518598	Mid	NR Band n41	100	27.7	27.10	0.10	0	00409	DFT-S-OFDM	QPSK	135	69	10 mm	back	21.43	0.214	1.148	1.010	0.248	
2592.99	518598	Mid	NR Band n41	100	26.2	24.83	0.13	1.5	00409	CP-OFDM	QPSK	1	1	10 mm	back	21.43	0.176	1.371	1.010	0.244	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram												

Note: The reported SAR was scaled to the 23.57% transmission duty factor to determine compliance since the duty factor of the device is permanently limited to 23.57% per the manufacturer.

Table 11-35
NR Band n66 Antenna 3 Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.60	-0.05	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.445	1.023	0.455	
1745.00	349000	Mid	NR Band n66 (AWS)	40	25.7	25.55	-0.03	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	back	1:1	0.450	1.035	0.466	
1745.00	349000	Mid	NR Band n66 (AWS)	40	24.2	23.70	-0.06	1.5	00391	CP-OFDM	QPSK	1	1	10 mm	back	1:1	0.272	1.122	0.305	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-36
NR Band n25 Antenna 3 Body-Worn SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.63	0.00	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.492	1.016	0.500	
1882.50	376500	Mid	NR Band n25 (PCS)	40	25.7	25.58	-0.04	0	00409	DFT-S-OFDM	QPSK	108	54	10 mm	back	1:1	0.525	1.028	0.540	
1882.50	376500	Mid	NR Band n25 (PCS)	40	24.2	23.66	-0.02	1.5	00409	CP-OFDM	QPSK	1	1	10 mm	back	1:1	0.361	1.132	0.409	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-37
DTS Body-Worn SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2437	6	802.11b	DSSS	22	21.0	20.90	-0.05	10 mm	1	00219	1	back	99.7	0.338	0.243	1.023	1.003	**0.249**	A58
2437	6	802.11b	DSSS	22	21.0	20.90	0.15	10 mm	2	00219	1	back	99.7	0.319	0.226	1.023	1.003	0.232	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram											

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Table 11-38
DTS Body-Worn SAR for Conditions with EN-DC Active

MEASUREMENT RESULTS																				
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	15.0	14.78	0.08	10 mm	1	00201	1	back	99.7	0.102	0.071	1.052	1.003	0.075	
2412	1	802.11b	DSSS	22	15.0	14.74	0.13	10 mm	2	00201	1	back	99.7	0.085	0.057	1.062	1.003	0.061	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-39
NII Body-Worn SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5280	56	802.11a	OFDM	20	19.5	19.34	-0.13	10 mm	1	00219	6	back	97.6	0.666	0.291	1.038	1.025	0.310	
5280	56	802.11a	OFDM	20	19.5	18.61	-0.10	10 mm	2	00219	6	back	97.8	0.311	0.151	1.227	1.022	0.189	
5700	140	802.11a	OFDM	20	17.8	16.88	-0.19	10 mm	1	00219	6	back	97.6	0.740	0.333	1.236	1.025	0.422	
5700	140	802.11a	OFDM	20	17.8	16.86	0.00	10 mm	2	00219	6	back	97.8	0.278	0.116	1.242	1.022	0.147	
5745	149	802.11a	OFDM	20	17.7	16.72	0.07	10 mm	1	00219	6	back	97.6	0.773	0.378	1.253	1.025	0.485	
5785	157	802.11a	OFDM	20	19.9	19.07	-0.17	10 mm	1	00219	6	back	97.6	1.407	0.615	1.211	1.025	0.763	A60
5825	165	802.11a	OFDM	20	19.8	18.88	-0.03	10 mm	1	00219	6	back	97.6	1.100	0.514	1.236	1.025	0.651	
5785	157	802.11a	OFDM	20	19.9	18.99	0.17	10 mm	2	00219	6	back	97.8	0.410	0.173	1.233	1.022	0.218	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram											

Table 11-40
NII Body-Worn SAR for Conditions with EN-DC Active

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5280	56	802.11a	OFDM	20	17.0	16.91	0.11	10 mm	1	00219	6	back	97.6	0.481	0.207	1.021	1.025	0.217	
5280	56	802.11a	OFDM	20	17.0	16.90	0.15	10 mm	2	00219	6	back	97.8	0.160	0.063	1.023	1.022	0.066	
5630	126	802.11n	OFDM	40	15.0	14.85	0.08	10 mm	1	00219	13.5	back	95.0	0.608	0.274	1.035	1.053	0.299	
5550	110	802.11n	OFDM	40	15.0	14.94	0.05	10 mm	2	00219	13.5	back	95.2	0.146	0.051	1.014	1.050	0.054	
5825	165	802.11a	OFDM	20	17.0	16.72	-0.03	10 mm	1	00219	6	back	97.6	0.745	0.356	1.067	1.025	0.389	
5785	157	802.11a	OFDM	20	17.0	16.80	-0.05	10 mm	2	00219	6	back	97.8	0.193	0.075	1.047	1.022	0.080	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram											

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Table 11-41
NII MIMO Body-Worn SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan W/kg	SAR (1g) (W/kg)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																				
5280	56	802.11n	OFDM	20	19.5	19.23	19.5	18.46	-0.03	10 mm	MIMO	00219	13	back	97.6	0.986	0.440	1.271	1.025	0.573	
5500	100	802.11n	OFDM	20	17.8	16.97	17.8	16.84	0.04	10 mm	MIMO	00219	13	back	97.6	0.873	0.380	1.247	1.025	0.486	
5745	149	802.11n	OFDM	20	17.4	16.52	17.4	16.84	-0.17	10 mm	MIMO	00219	13	back	97.6	1.016	0.409	1.225	1.025	0.514	
5785	157	802.11n	OFDM	20	19.9	18.90	19.9	18.90	-0.04	10 mm	MIMO	00219	13	back	97.6	1.399	0.600	1.259	1.025	0.774	
5825	165	802.11n	OFDM	20	19.6	18.70	19.6	18.70	0.01	10 mm	MIMO	00219	13	back	97.6	1.344	0.555	1.230	1.025	0.700	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note: To achieve the 22.5 dBm maximum allowed MIMO power shown in the documentation for channel 56, each antenna transmits at a maximum allowed power of 19.5 dBm. To achieve the 20.8 dBm maximum allowed MIMO power shown in the documentation for channel 100, each antenna transmits at a maximum allowed power of 17.8 dBm. To achieve the 20.4 dBm maximum allowed MIMO power shown in the documentation for channel 149, each antenna transmits at a maximum allowed power of 17.4 dBm. To achieve the 22.9 dBm maximum allowed MIMO power shown in the documentation for channel 157, each antenna transmits at a maximum allowed power of 19.9 dBm. To achieve the 22.6 dBm maximum allowed MIMO power shown in the documentation for channel 165, each antenna transmits at a maximum allowed power of 19.6 dBm.

Table 11-42
DSS Body-Worn SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (1g) (W/kg)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.															
2441	39	Bluetooth	FHSS	11.0	10.38	0.16	10 mm	00219	1	back	77.1	0.018	1.153	1.297	**0.027**	A61
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population												Body 1.6 W/kg (mW/g) averaged over 1 gram				

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11.3 Standalone Hotspot SAR Data

Table 11-43
GPRS/UMTS/CDMA Hotspot SAR Data

MEASUREMENT RESULTS																	
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Dual Display Position	Device Serial Number	# of Time Slots	Duty Cycle	Side	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.												(W/kg)		(W/kg)	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	24.7	24.63	0.05	10 mm	-	00342	N/A	1:1	back	0.357	1.016	0.363	A25
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	24.7	24.63	0.01	10 mm	-	00342	N/A	1:1	front	0.351	1.016	0.357	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	24.7	24.63	0.00	10 mm	-	00342	N/A	1:1	bottom	0.168	1.016	0.171	
820.10	564	CDMA BC10 (§90S)	EVDO Rev. 0	24.7	24.63	0.11	10 mm	-	00342	N/A	1:1	right	0.151	1.016	0.153	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	24.7	24.65	-0.01	10 mm	-	00342	N/A	1:1	back	0.399	1.012	0.404	A27
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	24.7	24.65	0.02	10 mm	-	00342	N/A	1:1	front	0.381	1.012	0.386	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	24.7	24.65	0.05	10 mm	-	00342	N/A	1:1	bottom	0.193	1.012	0.195	
836.52	384	CDMA BC0 (§22H)	EVDO Rev. 0	24.7	24.65	-0.02	10 mm	-	00342	N/A	1:1	right	0.168	1.012	0.170	
1880.00	600	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.01	10 mm	-	00367	N/A	1:1	back	0.356	1.057	0.376	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.04	10 mm	1	00342	N/A	1:1	back	0.482	1.038	0.500	
1880.00	600	PCS CDMA	EVDO Rev. 0	22.7	22.46	0.01	10 mm	-	00367	N/A	1:1	front	0.252	1.057	0.266	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	-0.16	10 mm	3	00342	N/A	1:1	front	0.610	1.038	0.633	
1851.25	25	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.05	10 mm	-	00367	N/A	1:1	bottom	0.723	1.057	0.764	
1880.00	600	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.06	10 mm	-	00367	N/A	1:1	bottom	0.782	1.057	0.827	
1908.75	1175	PCS CDMA	EVDO Rev. 0	22.7	22.43	-0.19	10 mm	-	00367	N/A	1:1	bottom	0.790	1.064	0.841	A29
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.02	10 mm	1	00342	N/A	1:1	bottom	0.625	1.038	0.649	
1880.00	600	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.07	10 mm	-	00367	N/A	1:1	left	0.091	1.057	0.096	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.00	10 mm	1	00342	N/A	1:1	left	0.075	1.038	0.078	
836.60	190	GSM 850	GPRS	29.2	28.71	0.00	10 mm	-	00342	4	1:2.076	back	0.450	1.119	0.504	
836.60	190	GSM 850	GPRS	29.2	28.71	0.01	10 mm	-	00342	4	1:2.076	front	0.460	1.119	0.515	A31
836.60	190	GSM 850	GPRS	29.2	28.71	-0.02	10 mm	-	00342	4	1:2.076	bottom	0.241	1.119	0.270	
836.60	190	GSM 850	GPRS	29.2	28.71	-0.02	10 mm	-	00342	4	1:2.076	right	0.231	1.119	0.258	
1880.00	661	GSM 1900	GPRS	27.2	26.85	0.15	10 mm	-	00359	3	1:2.76	back	0.286	1.084	0.310	
1880.00	661	GSM 1900	GPRS	27.2	26.85	0.06	10 mm	-	00359	3	1:2.76	front	0.229	1.084	0.248	
1880.00	661	GSM 1900	GPRS	27.2	26.85	-0.07	10 mm	-	00359	3	1:2.76	bottom	0.470	1.084	0.509	A33
1880.00	661	GSM 1900	GPRS	27.2	26.85	-0.18	10 mm	-	00359	3	1:2.76	left	0.073	1.084	0.079	
836.60	4183	UMTS 850	RMC	24.7	24.29	-0.16	10 mm	-	00359	N/A	1:1	back	0.341	1.099	0.375	
836.60	4183	UMTS 850	RMC	24.7	24.29	-0.02	10 mm	-	00359	N/A	1:1	front	0.344	1.099	0.378	A35
836.60	4183	UMTS 850	RMC	24.7	24.29	-0.03	10 mm	-	00359	N/A	1:1	bottom	0.162	1.099	0.178	
836.60	4183	UMTS 850	RMC	24.7	24.29	-0.03	10 mm	-	00359	N/A	1:1	right	0.149	1.099	0.164	
1732.40	1412	UMTS 1750	RMC	22.7	22.51	0.20	10 mm	-	00383	N/A	1:1	back	0.536	1.045	0.560	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	0.12	10 mm	1	00342	N/A	1:1	back	0.570	1.072	0.611	
1732.40	1412	UMTS 1750	RMC	22.7	22.51	-0.01	10 mm	-	00383	N/A	1:1	front	0.398	1.045	0.416	
1712.40	1312	UMTS 1750	RMC	24.7	24.36	-0.04	10 mm	3	00342	N/A	1:1	front	0.807	1.081	0.872	A37
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.04	10 mm	3	00342	N/A	1:1	front	0.749	1.072	0.803	
1752.60	1513	UMTS 1750	RMC	24.7	24.60	-0.03	10 mm	3	00342	N/A	1:1	front	0.757	1.023	0.774	
1712.40	1312	UMTS 1750	RMC	22.7	22.48	-0.01	10 mm	-	00383	N/A	1:1	bottom	0.688	1.052	0.724	
1732.40	1412	UMTS 1750	RMC	22.7	22.51	-0.01	10 mm	-	00383	N/A	1:1	bottom	0.735	1.045	0.768	
1752.60	1513	UMTS 1750	RMC	22.7	22.47	-0.01	10 mm	-	00383	N/A	1:1	bottom	0.785	1.054	0.827	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.02	10 mm	1	00342	N/A	1:1	bottom	0.615	1.072	0.659	
1732.40	1412	UMTS 1750	RMC	22.7	22.51	0.02	10 mm	-	00383	N/A	1:1	left	0.163	1.045	0.170	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	0.05	10 mm	1	00342	N/A	1:1	left	0.119	1.072	0.128	
1880.00	9400	UMTS 1900	RMC	22.7	22.39	0.08	10 mm	-	00367	N/A	1:1	back	0.395	1.074	0.424	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.12	10 mm	1	00359	N/A	1:1	back	0.548	1.074	0.589	
1880.00	9400	UMTS 1900	RMC	22.7	22.39	-0.10	10 mm	-	00367	N/A	1:1	front	0.289	1.074	0.310	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.01	10 mm	3	00359	N/A	1:1	front	0.626	1.074	0.672	
1852.40	9262	UMTS 1900	RMC	22.7	22.41	-0.03	10 mm	-	00367	N/A	1:1	bottom	0.584	1.069	0.624	
1880.00	9400	UMTS 1900	RMC	22.7	22.39	0.06	10 mm	-	00367	N/A	1:1	bottom	0.627	1.074	0.673	
1907.60	9538	UMTS 1900	RMC	22.7	22.46	-0.04	10 mm	-	00367	N/A	1:1	bottom	0.650	1.057	0.687	A39
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.05	10 mm	1	00359	N/A	1:1	bottom	0.586	1.074	0.629	
1880.00	9400	UMTS 1900	RMC	22.7	22.39	-0.07	10 mm	-	00367	N/A	1:1	left	0.083	1.074	0.089	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.02	10 mm	1	00359	N/A	1:1	left	0.070	1.074	0.075	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population								Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

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Table 11-44
LTE Band 71 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	0.07	0	00367	QPSK	1	0	10 mm	back	1:1	0.261	1.094	0.286	A40
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	0.19	1	00367	QPSK	50	25	10 mm	back	1:1	0.200	1.076	0.215	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	0.05	0	00367	QPSK	1	0	10 mm	front	1:1	0.192	1.094	0.210	
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	0.03	1	00367	QPSK	50	25	10 mm	front	1:1	0.156	1.076	0.168	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	0.02	0	00367	QPSK	1	0	10 mm	bottom	1:1	0.091	1.094	0.100	
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	0.05	1	00367	QPSK	50	25	10 mm	bottom	1:1	0.069	1.076	0.074	
680.50	133297	Mid	LTE Band 71	20	25.5	25.11	0.03	0	00367	QPSK	1	0	10 mm	right	1:1	0.193	1.094	0.211	
680.50	133297	Mid	LTE Band 71	20	24.5	24.18	-0.01	1	00367	QPSK	50	25	10 mm	right	1:1	0.169	1.076	0.182	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram						

Table 11-45
LTE Band 12 Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	0.01	0	00383	QPSK	1	25	10 mm	back	1:1	0.323	1.067	0.345	A41
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	0.03	1	00383	QPSK	25	0	10 mm	back	1:1	0.290	1.047	0.304	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	0.02	0	00383	QPSK	1	25	10 mm	front	1:1	0.259	1.067	0.276	
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	0.01	1	00383	QPSK	25	0	10 mm	front	1:1	0.230	1.047	0.241	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	0.11	0	00383	QPSK	1	25	10 mm	bottom	1:1	0.129	1.067	0.138	
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	0.00	1	00383	QPSK	25	0	10 mm	bottom	1:1	0.119	1.047	0.125	
707.50	23095	Mid	LTE Band 12	10	25.5	25.22	-0.12	0	00383	QPSK	1	25	10 mm	right	1:1	0.186	1.067	0.198	
707.50	23095	Mid	LTE Band 12	10	24.5	24.30	-0.01	1	00383	QPSK	25	0	10 mm	right	1:1	0.161	1.047	0.169	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram					

Table 11-46
LTE Band 13 Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	-0.06	0	00383	QPSK	1	25	10 mm	back	1:1	0.292	1.109	0.324	A42
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	0.03	1	00383	QPSK	25	12	10 mm	back	1:1	0.260	1.086	0.282	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	0.02	0	00383	QPSK	1	25	10 mm	front	1:1	0.240	1.109	0.266	
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	0.01	1	00383	QPSK	25	12	10 mm	front	1:1	0.218	1.086	0.237	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	0.11	0	00383	QPSK	1	25	10 mm	bottom	1:1	0.148	1.109	0.164	
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	0.00	1	00383	QPSK	25	12	10 mm	bottom	1:1	0.116	1.086	0.126	
782.00	23230	Mid	LTE Band 13	10	25.5	25.05	-0.12	0	00383	QPSK	1	25	10 mm	right	1:1	0.099	1.109	0.110	
782.00	23230	Mid	LTE Band 13	10	24.5	24.14	-0.10	1	00383	QPSK	25	12	10 mm	right	1:1	0.079	1.086	0.086	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram					

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Table 11-47
LTE Band 26 (Cell) Hotspot SAR

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.															(W/kg)		(W/kg)	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	0.01	0	00383	QPSK	1	36	10 mm	back	1:1	0.474	1.084	0.514	A43
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	0.01	1	00383	QPSK	36	37	10 mm	back	1:1	0.380	1.052	0.400	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	0.00	0	00383	QPSK	1	36	10 mm	front	1:1	0.366	1.084	0.397	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	0.01	1	00383	QPSK	36	37	10 mm	front	1:1	0.332	1.052	0.349	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	-0.08	0	00383	QPSK	1	36	10 mm	bottom	1:1	0.205	1.084	0.222	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	-0.08	1	00383	QPSK	36	37	10 mm	bottom	1:1	0.171	1.052	0.180	
831.50	26865	Mid	LTE Band 26 (Cell)	15	25.5	25.15	-0.04	0	00383	QPSK	1	36	10 mm	right	1:1	0.180	1.084	0.195	
831.50	26865	Mid	LTE Band 26 (Cell)	15	24.5	24.28	-0.04	1	00383	QPSK	36	37	10 mm	right	1:1	0.144	1.052	0.151	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram									

Table 11-48
LTE Band 66 (AWS) Hotspot SAR – Ant 2

MEASUREMENT RESULTS																			
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.96	0.09	0	00342	QPSK	1	50	10 mm	back	1:1	0.661	1.057	0.699	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	25.2	25.20	-0.14	0	00367	QPSK	1	50	10 mm	back	1:1	0.759	1.000	0.759	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.03	0.05	0	00342	QPSK	50	25	10 mm	back	1:1	0.659	1.040	0.685	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.96	-0.08	0	00342	QPSK	1	50	10 mm	front	1:1	0.467	1.057	0.494	
1720.00	132072	Low	LTE Band 66 (AWS)	20	3	25.2	25.03	0.01	0	00367	QPSK	1	50	10 mm	front	1:1	0.818	1.040	0.851	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	3	25.2	25.20	0.01	0	00367	QPSK	1	50	10 mm	front	1:1	0.855	1.000	0.855	A45
1770.00	132572	High	LTE Band 66 (AWS)	20	3	25.2	25.18	0.02	0	00367	QPSK	1	50	10 mm	front	1:1	0.850	1.005	0.854	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.03	-0.01	0	00342	QPSK	50	25	10 mm	front	1:1	0.478	1.040	0.497	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.96	-0.06	0	00342	QPSK	1	50	10 mm	bottom	1:1	0.745	1.057	0.787	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	25.2	25.20	-0.12	0	00367	QPSK	1	50	10 mm	bottom	1:1	0.785	1.000	0.785	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	22.88	-0.04	0	00342	QPSK	50	50	10 mm	bottom	1:1	0.733	1.076	0.789	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.02	-0.04	0	00342	QPSK	50	25	10 mm	bottom	1:1	0.741	1.042	0.772	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.03	-0.05	0	00342	QPSK	50	25	10 mm	bottom	1:1	0.760	1.040	0.790	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.96	-0.12	0	00342	QPSK	1	50	10 mm	left	1:1	0.173	1.057	0.183	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	25.2	25.20	-0.05	0	00367	QPSK	1	50	10 mm	left	1:1	0.098	1.000	0.098	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.03	0.04	0	00342	QPSK	50	25	10 mm	left	1:1	0.195	1.040	0.203	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population										Body 1.6 W/kg (mW/g) averaged over 1 gram									

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

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Table 11-49
LTE Band 66 (AWS) Hotspot SAR – Ant 3

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	-0.01	0	00318	QPSK	1	0	10 mm	back	1:1	0.302	1.026	0.310	
1720.00	132072	Low	LTE Band 66 (AWS)	20	1	23.5	23.47	0.00	0	00318	QPSK	1	99	10 mm	back	1:1	0.212	1.007	0.213	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	-0.02	0.7	00318	QPSK	50	0	10 mm	back	1:1	0.230	1.026	0.236	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	-0.03	0	00318	QPSK	1	0	10 mm	front	1:1	0.242	1.026	0.248	
1720.00	132072	Low	LTE Band 66 (AWS)	20	3	23.5	23.47	-0.13	0	00318	QPSK	1	99	10 mm	front	1:1	0.170	1.007	0.171	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	0.00	0.7	00318	QPSK	50	0	10 mm	front	1:1	0.216	1.026	0.222	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	-0.01	0	00318	QPSK	1	0	10 mm	bottom	1:1	0.116	1.026	0.119	
1720.00	132072	Low	LTE Band 66 (AWS)	20	1	23.5	23.47	-0.10	0	00318	QPSK	1	99	10 mm	bottom	1:1	0.057	1.007	0.057	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	0.05	0.7	00318	QPSK	50	0	10 mm	bottom	1:1	0.072	1.026	0.074	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	-0.05	0	00318	QPSK	1	0	10 mm	right	1:1	0.620	1.026	0.636	
1720.00	132072	Low	LTE Band 66 (AWS)	20	1	23.5	23.47	-0.07	0	00318	QPSK	1	99	10 mm	right	1:1	0.668	1.007	0.673	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	23.5	23.33	-0.03	0	00318	QPSK	1	0	10 mm	right	1:1	0.651	1.040	0.677	
1770.00	132572	High	LTE Band 66 (AWS)	20	1	23.5	23.37	0.06	0	00318	QPSK	1	99	10 mm	right	1:1	0.655	1.030	0.675	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	0.00	0.7	00318	QPSK	50	0	10 mm	right	1:1	0.583	1.026	0.598	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram			

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

Table 11-50
LTE Band 25 (PCS) Hotspot SAR – Ant 2

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g) (W/kg)	Scaling Factor	Reported SAR (1g) (W/kg)	Plot #
MHz	Ch.																			
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.03	-0.03	0	00342	QPSK	1	50	10 mm	back	1:1	0.334	1.040	0.347	
1905.00	26590	High	LTE Band 25 (PCS)	20	1	25.2	25.01	0.08	0	00367	QPSK	1	50	10 mm	back	1:1	0.434	1.045	0.454	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	0.11	0	00342	QPSK	50	50	10 mm	back	1:1	0.363	1.035	0.376	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.03	0.06	0	00342	QPSK	1	50	10 mm	front	1:1	0.284	1.040	0.295	
1905.00	26590	High	LTE Band 25 (PCS)	20	3	25.2	25.01	-0.08	0	00367	QPSK	1	50	10 mm	front	1:1	0.659	1.045	0.689	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	0.07	0	00342	QPSK	50	50	10 mm	front	1:1	0.312	1.035	0.323	
1860.00	26140	Low	LTE Band 25 (PCS)	20	-	23.2	23.01	0.03	0	00342	QPSK	1	50	10 mm	bottom	1:1	0.802	1.045	0.838	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.03	-0.03	0	00342	QPSK	1	50	10 mm	bottom	1:1	0.790	1.040	0.822	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	23.2	22.95	-0.01	0	00342	QPSK	1	50	10 mm	bottom	1:1	0.788	1.059	0.834	
1905.00	26590	High	LTE Band 25 (PCS)	20	1	25.2	25.01	-0.06	0	00367	QPSK	1	50	10 mm	bottom	1:1	0.534	1.045	0.558	
1860.00	26140	Low	LTE Band 25 (PCS)	20	-	23.2	23.03	0.00	0	00342	QPSK	50	50	10 mm	bottom	1:1	0.825	1.040	0.858	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	-0.03	0	00342	QPSK	50	50	10 mm	bottom	1:1	0.877	1.035	0.908	A47
1905.00	26590	High	LTE Band 25 (PCS)	20	-	23.2	23.04	0.00	0	00342	QPSK	50	0	10 mm	bottom	1:1	0.841	1.038	0.873	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.01	0.02	0	00342	QPSK	100	0	10 mm	bottom	1:1	0.820	1.045	0.857	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.03	-0.12	0	00342	QPSK	1	50	10 mm	left	1:1	0.113	1.040	0.118	
1905.00	26590	High	LTE Band 25 (PCS)	20	1	25.2	25.01	0.04	0	00367	QPSK	1	50	10 mm	left	1:1	0.075	1.045	0.078	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	-0.01	0	00342	QPSK	50	50	10 mm	left	1:1	0.128	1.035	0.132	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	-0.10	0	00342	QPSK	50	50	10 mm	bottom	1:1	0.789	1.035	0.817	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram			

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees) 3) Blue entry represents variability measurement.

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Table 11-51
LTE Band 2 (PCS) Hotspot SAR – Ant 3

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	-0.04	0	00318	QPSK	1	50	10 mm	back	1:1	0.245	1.086	0.266	
1900.00	19100	High	LTE Band 2 (PCS)	20	1	23.5	22.94	0.13	0	00359	QPSK	1	99	10 mm	back	1:1	0.280	1.138	0.319	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.02	0.7	00318	QPSK	50	0	10 mm	back	1:1	0.231	1.122	0.259	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	-0.02	0	00318	QPSK	1	50	10 mm	front	1:1	0.180	1.086	0.195	
1900.00	19100	High	LTE Band 2 (PCS)	20	3	23.5	22.94	-0.02	0	00359	QPSK	1	99	10 mm	front	1:1	0.233	1.138	0.265	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	0.03	0.7	00318	QPSK	50	0	10 mm	front	1:1	0.169	1.122	0.190	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	-0.08	0	00318	QPSK	1	50	10 mm	bottom	1:1	0.132	1.086	0.143	
1900.00	19100	High	LTE Band 2 (PCS)	20	1	23.5	22.94	-0.10	0	00359	QPSK	1	99	10 mm	bottom	1:1	0.121	1.138	0.138	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.10	0.7	00318	QPSK	50	0	10 mm	bottom	1:1	0.114	1.122	0.128	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	-0.11	0	00318	QPSK	1	50	10 mm	right	1:1	0.551	1.086	0.598	
1860.00	18700	Low	LTE Band 2 (PCS)	20	1	23.5	22.67	-0.03	0	00359	QPSK	1	99	10 mm	right	1:1	0.616	1.211	0.746	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	1	23.5	22.75	0.12	0	00359	QPSK	1	99	10 mm	right	1:1	0.639	1.189	0.760	A49
1900.00	19100	High	LTE Band 2 (PCS)	20	1	23.5	22.94	0.13	0	00359	QPSK	1	99	10 mm	right	1:1	0.602	1.138	0.685	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.08	0.7	00318	QPSK	50	0	10 mm	right	1:1	0.522	1.122	0.586	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population															Body 1.6 W/kg (mW/g) averaged over 1 gram					

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

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Table 11-52
LTE Band 41 Hotspot SAR

MEASUREMENT RESULTS																								
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Device Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
		MHz	Ch.																(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.05	-0.04	0	00383	QPSK	1	50	10 mm	back	1:1.58	0.354	1.035	0.366	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	1	25.2	25.13	-0.11	0	00383	QPSK	1	50	10 mm	back	1:1.58	0.411	1.016	0.418	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.10	-0.10	0	00383	QPSK	50	25	10 mm	back	1:1.58	0.348	1.023	0.356	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.05	0.00	0	00383	QPSK	1	50	10 mm	front	1:1.58	0.253	1.035	0.262	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	3	25.2	25.13	-0.12	0	00383	QPSK	1	50	10 mm	front	1:1.58	0.111	1.016	0.113	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.10	-0.04	0	00383	QPSK	50	25	10 mm	front	1:1.58	0.257	1.023	0.263	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	-	24.2	24.04	0.05	0	00383	QPSK	1	50	10 mm	bottom	1:1.58	0.488	1.038	0.507	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	-	24.2	24.04	0.00	0	00383	QPSK	1	50	10 mm	bottom	1:1.58	0.567	1.038	0.589	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.05	-0.14	0	00383	QPSK	1	50	10 mm	bottom	1:1.58	0.617	1.035	0.639	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	1	25.2	25.13	-0.17	0	00383	QPSK	1	50	10 mm	bottom	1:1.58	0.335	1.016	0.340	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.92	-0.06	0	00383	QPSK	1	50	10 mm	bottom	1:1.58	0.604	1.067	0.644	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	-	24.2	23.86	-0.14	0	00383	QPSK	1	0	10 mm	bottom	1:1.58	0.744	1.081	0.804	A51
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	-	24.2	24.00	0.00	0	00383	QPSK	1	50	10 mm	bottom	1:1.58	0.695	1.047	0.728	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	-	24.2	24.07	-0.02	0	00383	QPSK	50	25	10 mm	bottom	1:1.58	0.507	1.030	0.522	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	-	24.2	24.09	-0.05	0	00383	QPSK	50	25	10 mm	bottom	1:1.58	0.583	1.026	0.598	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.10	0.17	0	00383	QPSK	50	25	10 mm	bottom	1:1.58	0.633	1.023	0.648	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.99	0.02	0	00383	QPSK	50	25	10 mm	bottom	1:1.58	0.616	1.050	0.647	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	-	24.2	24.02	0.03	0	00383	QPSK	50	25	10 mm	bottom	1:1.58	0.697	1.042	0.726	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.04	-0.03	0	00383	QPSK	100	0	10 mm	bottom	1:1.58	0.619	1.038	0.643	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	LTE Band 41	20	-	26.7	25.96	0.05	0	00383	QPSK	1	0	10 mm	bottom	1:2.31	0.743	1.186	0.881	
1 CC Uplink - Power Class 2	N/A	2680.00	41490	High	LTE Band 41	20	-	26.7	26.12	-0.02	0	00383	QPSK	1	50	10 mm	bottom	1:2.31	0.729	1.143	0.833	
2 CC Uplink - Power Class 3	PCC	2680.00	41490	High	LTE Band 41	20	-	24.2	23.27	-0.06	0	00383	QPSK	1	0	10 mm	bottom	1:1.58	0.621	1.239	0.769	
	SCC	2660.20	41292	High	LTE Band 41	20							QPSK	1	99							
2 CC Uplink - Power Class 2	PCC	2680.00	41490	High	LTE Band 41	20	-	26.7	25.40	0.02	0	00383	QPSK	1	0	10 mm	bottom	1:2.31	0.635	1.349	0.857	
	SCC	2660.20	41292	High	LTE Band 41	20							QPSK	1	99							
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.05	0.06	0	00383	QPSK	1	50	10 mm	left	1:1.58	0.070	1.035	0.072	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	1	25.2	25.13	-0.03	0	00383	QPSK	1	50	10 mm	left	1:1.58	0.038	1.016	0.039	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.10	-0.13	0	00383	QPSK	50	25	10 mm	left	1:1.58	0.080	1.023	0.082	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

Table 11-53
NR Band n71 Hotspot SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	-0.10	0	00409	DFT-S-OFDM	QPSK	1	53	10 mm	back	1:1	0.212	1.138	0.241	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	-0.11	0	00409	DFT-S-OFDM	QPSK	50	28	10 mm	back	1:1	0.214	1.138	0.244	A52
680.50	136100	Mid	NR Band n71	20	24.2	23.16	-0.01	1.5	00409	CP-OFDM	QPSK	1	1	10 mm	back	1:1	0.158	1.271	0.201	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.02	0	00409	DFT-S-OFDM	QPSK	1	53	10 mm	front	1:1	0.177	1.138	0.201	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.02	0	00409	DFT-S-OFDM	QPSK	50	28	10 mm	front	1:1	0.174	1.138	0.198	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	-0.03	0	00409	DFT-S-OFDM	QPSK	1	53	10 mm	bottom	1:1	0.083	1.138	0.094	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	-0.16	0	00409	DFT-S-OFDM	QPSK	50	28	10 mm	bottom	1:1	0.085	1.138	0.097	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	-0.01	0	00409	DFT-S-OFDM	QPSK	1	53	10 mm	right	1:1	0.199	1.138	0.226	
680.50	136100	Mid	NR Band n71	20	25.7	25.14	0.02	0	00409	DFT-S-OFDM	QPSK	50	28	10 mm	right	1:1	0.200	1.138	0.228	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Body 1.6 W/kg (mW/g) averaged over 1 gram			

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Table 11-54
NR Band n66 (AWS) Antenna 2 Standalone Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.20	0.10	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.530	1.000	0.530	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	0.00	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.890	1.014	0.902	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.19	0.12	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	back	1:1	0.511	1.002	0.512	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.20	0.02	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.398	1.000	0.398	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	0.03	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.434	1.014	0.440	
1745.00	349000	Mid	NR Band n66 (AWS)	40	2	25.2	25.14	0.06	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.889	1.014	0.901	
1745.00	349000	Mid	NR Band n66 (AWS)	40	3	25.2	25.14	0.02	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	1.050	1.014	**1.065**	A54
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.19	-0.06	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	front	1:1	0.384	1.002	0.385	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.20	0.01	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.598	1.000	0.598	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	0.02	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.728	1.014	0.738	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.19	0.05	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	bottom	1:1	0.785	1.002	0.787	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	22.95	-0.03	0	00391	CP-OFDM	QPSK	1	1	10 mm	bottom	1:1	0.637	1.059	0.675	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.20	-0.02	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	left	1:1	0.149	1.000	0.149	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	0.02	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	left	1:1	0.097	1.014	0.098	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.19	0.09	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	left	1:1	0.146	1.002	0.146	
1745.00	349000	Mid	NR Band n66 (AWS)	40	3	25.2	25.14	-0.13	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.958	1.014	0.971	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Purple entries represent additional Hotspot SAR Position (DD#2: 180 degrees) 3) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees) 4) Blue entry represents variability measurement.

Table 11-55
NR Band n66 (AWS) Antenna 3 Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	-0.08	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.312	1.112	0.347	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.7	25.60	0.04	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.256	1.023	0.262	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	-0.12	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	back	1:1	0.346	1.086	0.376	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	0.00	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.215	1.112	0.239	
1745.00	349000	Mid	NR Band n66 (AWS)	40	3	25.7	25.60	-0.01	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.318	1.023	0.325	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	0.01	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	front	1:1	0.200	1.086	0.217	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	0.09	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.091	1.112	0.101	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.7	25.60	-0.01	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.121	1.023	0.124	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	-0.13	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	bottom	1:1	0.100	1.086	0.109	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	-0.04	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	right	1:1	0.489	1.112	0.544	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.7	25.60	-0.03	0	00391	DFT-S-OFDM	QPSK	1	108	10 mm	right	1:1	0.642	1.023	0.657	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	0.01	0	00391	DFT-S-OFDM	QPSK	108	54	10 mm	right	1:1	0.510	1.086	0.554	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	22.89	-0.13	0	00391	CP-OFDM	QPSK	1	1	10 mm	right	1:1	0.508	1.205	0.612	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

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Table 11-56
NR Band n25 (PCS) Antenna 2 Standalone Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.91	-0.14	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.262	1.069	0.280	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.2	24.96	0.14	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.538	1.057	0.569	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	23.00	-0.06	0	00409	DFT-S-OFDM	QPSK	108	54	10 mm	back	1:1	0.263	1.047	0.275	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.91	0.02	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.216	1.069	0.231	
1882.50	376500	Mid	NR Band n25 (PCS)	40	3	25.2	24.96	-0.21	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.683	1.057	0.722	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	23.00	0.04	0	00409	DFT-S-OFDM	QPSK	108	54	10 mm	front	1:1	0.202	1.047	0.211	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.91	-0.06	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.535	1.069	0.572	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.2	24.96	-0.05	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.542	1.057	0.573	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	23.00	-0.05	0	00409	DFT-S-OFDM	QPSK	108	54	10 mm	bottom	1:1	0.520	1.047	0.544	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.43	0.02	0	00409	CP-OFDM	QPSK	1	1	10 mm	bottom	1:1	0.517	1.194	0.617	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.91	-0.02	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	left	1:1	0.056	1.069	0.060	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.2	24.96	0.06	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	left	1:1	0.065	1.057	0.069	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	23.00	-0.03	0	00409	DFT-S-OFDM	QPSK	108	54	10 mm	left	1:1	0.056	1.047	0.059	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

Table 11-57
NR Band n25 (PCS) Antenna 3 Hotspot SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (1g)	Scaling Factor	Reported SAR (1g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	-0.19	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.283	1.114	0.315	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.7	25.63	0.11	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	back	1:1	0.347	1.016	0.353	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	-0.12	0	00409	DFT-S-OFDM	QPSK	108	0	10 mm	back	1:1	0.321	1.084	0.348	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	-0.01	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.189	1.114	0.211	
1882.50	376500	Mid	NR Band n25 (PCS)	40	3	25.7	25.63	-0.01	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	front	1:1	0.320	1.016	0.325	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	-0.02	0	00409	DFT-S-OFDM	QPSK	108	0	10 mm	front	1:1	0.214	1.084	0.232	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	-0.01	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.185	1.114	0.206	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.7	25.63	0.01	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	bottom	1:1	0.147	1.016	0.149	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	0.04	0	00409	DFT-S-OFDM	QPSK	108	0	10 mm	bottom	1:1	0.185	1.084	0.201	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	-0.06	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	right	1:1	0.614	1.114	0.684	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.7	25.63	0.07	0	00409	DFT-S-OFDM	QPSK	1	108	10 mm	right	1:1	0.869	1.016	0.883	A56
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	0.10	0	00409	DFT-S-OFDM	QPSK	108	0	10 mm	right	1:1	0.669	1.084	0.725	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	22.91	0.00	0	00409	CP-OFDM	QPSK	1	1	10 mm	right	1:1	0.590	1.199	0.707	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note: 1) Green entries represent additional Hotspot SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Hotspot SAR Position (DD #3: 360 degrees)

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Table 11-58
NR Band n41 Hotspot SAR

MEASUREMENT RESULTS																							
FREQUENCY			Mode	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.																(W/kg)			(W/kg)	
2592.99	518598	Mid	NR Band n41	100	27.70	27.19	0.12	0	00409	DFT-S-OFDM	QPSK	1	137	10 mm	back	21.43	0.221	1.125	1.010	0.251	A57
2592.99	518598	Mid	NR Band n41	100	27.70	27.10	0.10	0	00409	DFT-S-OFDM	QPSK	135	69	10 mm	back	21.43	0.214	1.148	1.010	0.248	
2592.99	518598	Mid	NR Band n41	100	26.20	24.83	0.13	1.5	00409	CP-OFDM	QPSK	1	1	10 mm	back	21.43	0.176	1.371	1.010	0.244	
2592.99	518598	Mid	NR Band n41	100	27.70	27.19	0.04	0	00409	DFT-S-OFDM	QPSK	1	137	10 mm	front	21.43	0.015	1.125	1.010	0.017	
2592.99	518598	Mid	NR Band n41	100	27.70	27.10	0.13	0	00409	DFT-S-OFDM	QPSK	135	69	10 mm	front	21.43	0.015	1.148	1.010	0.017	
2592.99	518598	Mid	NR Band n41	100	27.70	27.19	0.13	0	00409	DFT-S-OFDM	QPSK	1	137	10 mm	right	21.43	0.089	1.125	1.010	0.101	
2592.99	518598	Mid	NR Band n41	100	27.70	27.10	0.01	0	00409	DFT-S-OFDM	QPSK	135	69	10 mm	right	21.43	0.065	1.148	1.010	0.075	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note: The reported SAR was scaled to the 23.57% transmission duty factor to determine compliance since the duty factor of the device is permanently limited to 23.57% per the manufacturer.

Table 11-59
WLAN Hotspot SAR

MEASUREMENT RESULTS																		
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2437	6	802.11b	DSSS	22	21.0	20.90	-0.05	10 mm	1	00219	1	back	99.7	0.338	0.243	1.023	1.003	0.249	
2437	6	802.11b	DSSS	22	21.0	20.90	0.17	10 mm	1	00219	1	front	99.7	0.383	0.259	1.023	1.003	0.266	
2437	6	802.11b	DSSS	22	21.0	20.90	0.11	10 mm	1	00219	1	top	99.7	0.494	0.269	1.023	1.003	0.276	
2412	1	802.11b	DSSS	22	21.0	20.87	0.17	10 mm	1	00219	1	left	99.7	1.038	0.624	1.030	1.003	0.645	
2437	6	802.11b	DSSS	22	21.0	20.90	0.02	10 mm	1	00219	1	left	99.7	1.125	0.663	1.023	1.003	**0.680**	A59
2462	11	802.11b	DSSS	22	21.0	20.90	0.12	10 mm	1	00219	1	left	99.7	0.937	0.570	1.023	1.003	0.585	
2437	6	802.11b	DSSS	22	21.0	20.90	0.15	10 mm	2	00219	1	back	99.7	0.319	0.226	1.023	1.003	0.232	
2437	6	802.11b	DSSS	22	21.0	20.90	0.10	10 mm	2	00219	1	front	99.7	0.235	0.145	1.023	1.003	0.149	
2437	6	802.11b	DSSS	22	21.0	20.90	0.16	10 mm	2	00219	1	top	99.7	0.388	0.234	1.023	1.003	0.240	
2437	6	802.11b	DSSS	22	21.0	20.90	0.16	10 mm	2	00219	1	left	99.7	0.053	-	1.023	1.003	-	
5200	40	802.11a	OFDM	20	19.5	19.32	-0.11	10 mm	1	00219	6	back	97.6	0.693	0.306	1.042	1.025	0.327	
5200	40	802.11a	OFDM	20	19.5	19.32	0.00	10 mm	1	00219	6	front	97.6	0.171	0.070	1.042	1.025	0.075	
5200	40	802.11a	OFDM	20	19.5	19.32	0.10	10 mm	1	00219	6	top	97.6	0.305	-	1.042	1.025	-	
5200	40	802.11a	OFDM	20	19.5	19.32	0.06	10 mm	1	00219	6	left	97.6	0.257	-	1.042	1.025	-	
5200	40	802.11a	OFDM	20	19.5	18.58	0.11	10 mm	2	00219	6	back	97.8	0.277	0.139	1.236	1.022	0.176	
5200	40	802.11a	OFDM	20	19.5	18.58	0.00	10 mm	2	00219	6	front	97.8	0.159	0.076	1.236	1.022	0.096	
5200	40	802.11a	OFDM	20	19.5	18.58	0.19	10 mm	2	00219	6	top	97.8	0.334	0.144	1.236	1.022	0.182	
5200	40	802.11a	OFDM	20	19.5	18.58	0.00	10 mm	2	00219	6	left	97.8	0.094	-	1.236	1.022	-	
5745	149	802.11a	OFDM	20	17.7	16.72	0.07	10 mm	1	00219	6	back	97.6	0.773	0.378	1.253	1.025	0.485	
5785	157	802.11a	OFDM	20	19.9	19.07	-0.17	10 mm	1	00219	6	back	97.6	1.407	0.615	1.211	1.025	**0.763**	A60
5825	165	802.11a	OFDM	20	19.8	18.88	-0.03	10 mm	1	00219	6	back	97.6	1.100	0.514	1.236	1.025	0.651	
5785	157	802.11a	OFDM	20	19.9	19.07	0.00	10 mm	1	00219	6	front	97.6	0.093	0.035	1.211	1.025	0.043	
5785	157	802.11a	OFDM	20	19.9	19.07	-0.15	10 mm	1	00219	6	top	97.6	0.592	0.262	1.211	1.025	0.325	
5785	157	802.11a	OFDM	20	19.9	19.07	0.12	10 mm	1	00219	6	left	97.6	0.578	-	1.211	1.025	-	
5785	157	802.11a	OFDM	20	19.9	18.99	0.17	10 mm	2	00219	6	back	97.8	0.410	0.173	1.233	1.022	0.218	
5785	157	802.11a	OFDM	20	19.9	18.99	0.00	10 mm	2	00219	6	front	97.8	0.142	0.050	1.233	1.022	0.063	
5785	157	802.11a	OFDM	20	19.9	18.99	0.09	10 mm	2	00219	6	top	97.8	0.171	-	1.233	1.022	-	
5785	157	802.11a	OFDM	20	19.9	18.99	0.00	10 mm	2	00219	6	left	97.8	0.164	-	1.233	1.022	-	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population														Body 1.6 W/kg (mW/g) averaged over 1 gram					

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Table 11-60
WLAN Hotspot SAR for Conditions with EN-DC Active

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
2412	1	802.11b	DSSS	22	15.0	14.78	0.08	10 mm	1	00201	1	back	99.7	0.102	0.071	1.052	1.003	0.075	
2412	1	802.11b	DSSS	22	15.0	14.78	0.14	10 mm	1	00201	1	front	99.7	0.093	-	1.052	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.78	0.10	10 mm	1	00201	1	top	99.7	0.132	-	1.052	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.78	0.18	10 mm	1	00201	1	left	99.7	0.271	0.171	1.052	1.003	0.180	
2412	1	802.11b	DSSS	22	15.0	14.74	0.13	10 mm	2	00201	1	back	99.7	0.085	0.057	1.062	1.003	0.061	
2412	1	802.11b	DSSS	22	15.0	14.74	0.18	10 mm	2	00201	1	front	99.7	0.047	-	1.062	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.74	0.03	10 mm	2	00201	1	top	99.7	0.083	-	1.062	1.003	-	
2412	1	802.11b	DSSS	22	15.0	14.74	0.11	10 mm	2	00201	1	left	99.7	0.020	-	1.062	1.003	-	
5200	40	802.11a	OFDM	20	17.0	16.61	0.00	10 mm	1	00219	6	back	97.6	0.518	0.225	1.094	1.025	0.252	
5200	40	802.11a	OFDM	20	17.0	16.61	0.00	10 mm	1	00219	6	front	97.6	0.113	0.049	1.094	1.025	0.055	
5200	40	802.11a	OFDM	20	17.0	16.61	0.14	10 mm	1	00219	6	top	97.6	0.196	-	1.094	1.025	-	
5200	40	802.11a	OFDM	20	17.0	16.61	0.00	10 mm	1	00219	6	left	97.6	0.140	-	1.094	1.025	-	
5200	40	802.11a	OFDM	20	17.0	16.78	0.05	10 mm	2	00219	6	back	97.8	0.168	0.074	1.052	1.022	0.080	
5200	40	802.11a	OFDM	20	17.0	16.78	0.00	10 mm	2	00219	6	front	97.8	0.100	0.040	1.052	1.022	0.043	
5200	40	802.11a	OFDM	20	17.0	16.78	0.13	10 mm	2	00219	6	top	97.8	0.192	0.083	1.052	1.022	0.089	
5200	40	802.11a	OFDM	20	17.0	16.78	0.00	10 mm	2	00219	6	left	97.8	0.058	-	1.052	1.022	-	
5825	165	802.11a	OFDM	20	17.0	16.72	-0.03	10 mm	1	00219	6	back	97.6	0.745	0.356	1.067	1.025	0.389	
5825	165	802.11a	OFDM	20	17.0	16.72	0.00	10 mm	1	00219	6	front	97.6	0.057	0.022	1.067	1.025	0.024	
5825	165	802.11a	OFDM	20	17.0	16.72	0.08	10 mm	1	00219	6	top	97.6	0.376	-	1.067	1.025	-	
5825	165	802.11a	OFDM	20	17.0	16.72	-0.04	10 mm	1	00219	6	left	97.6	0.363	-	1.067	1.025	-	
5785	157	802.11a	OFDM	20	17.0	16.80	-0.05	10 mm	2	00219	6	back	97.8	0.193	0.075	1.047	1.022	0.080	
5785	157	802.11a	OFDM	20	17.0	16.80	0.00	10 mm	2	00219	6	front	97.8	0.051	0.019	1.047	1.022	0.020	
5785	157	802.11a	OFDM	20	17.0	16.80	0.00	10 mm	2	00219	6	top	97.8	0.009	-	1.047	1.022	-	
5785	157	802.11a	OFDM	20	17.0	16.80	0.00	10 mm	2	00219	6	left	97.8	0.008	-	1.047	1.022	-	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

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Table 11-61
WLAN MIMO Hotspot SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (1g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5200	40	802.11n	OFDM	20	19.5	19.11	19.5	18.59	-0.11	10 mm	MIMO	00219	13	back	97.6	1.001	0.444	1.233	1.025	0.561	
5200	40	802.11n	OFDM	20	19.5	19.11	19.5	18.59	-0.02	10 mm	MIMO	00219	13	front	97.6	0.329	0.143	1.233	1.025	0.181	
5200	40	802.11n	OFDM	20	19.5	19.11	19.5	18.59	0.16	10 mm	MIMO	00219	13	top	97.6	0.446	0.194	1.233	1.025	0.245	
5200	40	802.11n	OFDM	20	19.5	19.11	19.5	18.59	0.00	10 mm	MIMO	00219	13	left	97.6	0.291	-	1.233	1.025	-	
5745	149	802.11n	OFDM	20	17.4	16.52	17.4	16.84	-0.17	10 mm	MIMO	00219	13	back	97.6	1.016	0.409	1.225	1.025	0.514	
5785	157	802.11n	OFDM	20	19.9	18.90	19.9	18.90	-0.04	10 mm	MIMO	00219	13	back	97.6	1.399	0.600	1.259	1.025	0.774	
5825	165	802.11n	OFDM	20	19.6	18.70	19.6	18.70	0.01	10 mm	MIMO	00219	13	back	97.6	1.344	0.555	1.230	1.025	0.700	
5785	157	802.11n	OFDM	20	19.9	18.90	19.9	18.90	0.00	10 mm	MIMO	00219	13	front	97.6	0.146	0.054	1.259	1.025	0.070	
5785	157	802.11n	OFDM	20	19.9	18.90	19.9	18.90	0.14	10 mm	MIMO	00219	13	top	97.6	0.651	0.263	1.259	1.025	0.339	
5785	157	802.11n	OFDM	20	19.9	18.90	19.9	18.90	0.01	10 mm	MIMO	00219	13	left	97.6	0.576	-	1.259	1.025	-	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

Note: To achieve the 22.5 dBm maximum allowed MIMO power shown in the documentation for channel 40, each antenna transmits at a maximum allowed power of 19.5 dBm. To achieve the 20.4 dBm maximum allowed MIMO power shown in the documentation for channel 149, each antenna transmits at a maximum allowed power of 17.4 dBm. To achieve the 22.9 dBm maximum allowed MIMO power shown in the documentation for channel 157, each antenna transmits at a maximum allowed power of 19.9 dBm. To achieve the 22.6 dBm maximum allowed MIMO power shown in the documentation for channel 165, each antenna transmits at a maximum allowed power of 19.6 dBm.

Table 11-62
DSS Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	SAR (1g)	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Reported SAR (1g)	Plot #
MHz	Ch.											(W/kg)			(W/kg)	
2441	39	Bluetooth	FHSS	11.0	10.38	0.16	10 mm	00219	1	back	77.1	0.018	1.153	1.297	0.027	
2441	39	Bluetooth	FHSS	11.0	10.38	0.14	10 mm	00219	1	front	77.1	0.016	1.153	1.297	0.024	
2441	39	Bluetooth	FHSS	11.0	10.38	0.16	10 mm	00219	1	top	77.1	0.019	1.153	1.297	0.028	
2441	39	Bluetooth	FHSS	11.0	10.38	0.00	10 mm	00219	1	left	77.1	0.047	1.153	1.297	**0.070**	A62

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Body
Spatial Peak	1.6 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 1 gram

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11.4 Standalone Phablet SAR Data

Table 11-63
UMTS/CDMA Phablet SAR Data

MEASUREMENT RESULTS																
FREQUENCY		Mode	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Dual Display Position	Device Serial Number	Duty Cycle	Side	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.											(W/kg)		(W/kg)	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.14	2 mm	-	00359	1:1	back	1.310	1.038	1.360	
1851.25	25	PCS CDMA	EVDO Rev. 0	24.7	24.45	0.16	0 mm	1	00342	1:1	back	2.530	1.059	2.679	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.13	0 mm	1	00342	1:1	back	2.430	1.038	2.522	
1908.75	1175	PCS CDMA	EVDO Rev. 0	24.7	24.56	0.19	0 mm	1	00342	1:1	back	2.720	1.033	2.810	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	-0.14	1 mm	-	00359	1:1	front	1.380	1.038	1.432	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.08	0 mm	3	00342	1:1	front	1.770	1.038	1.837	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.14	3 mm	-	00359	1:1	bottom	1.670	1.038	1.733	
1851.25	25	PCS CDMA	EVDO Rev. 0	24.7	24.45	-0.09	0 mm	1	00342	1:1	bottom	2.600	1.059	2.753	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	-0.12	0 mm	1	00342	1:1	bottom	2.620	1.038	2.720	
1908.75	1175	PCS CDMA	EVDO Rev. 0	24.7	24.56	-0.03	0 mm	1	00342	1:1	bottom	2.770	1.033	2.861	A63
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.14	0 mm	-	00359	1:1	left	0.295	1.038	0.306	
1880.00	600	PCS CDMA	EVDO Rev. 0	24.7	24.54	0.13	0 mm	1	00342	1:1	left	0.243	1.038	0.252	
1851.25	25	PCS CDMA	EVDO Rev. 0	22.7	22.46	0.04	0 mm	-	00367	1:1	back	1.960	1.057	2.072	
1880.00	600	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.02	0 mm	-	00367	1:1	back	1.920	1.057	2.029	
1908.75	1175	PCS CDMA	EVDO Rev. 0	22.7	22.43	-0.01	0 mm	-	00367	1:1	back	1.950	1.064	2.075	
1880.00	600	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.19	0 mm	-	00367	1:1	front	1.430	1.057	1.512	
1851.25	25	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.09	0 mm	-	00367	1:1	bottom	2.400	1.057	2.537	
1880.00	600	PCS CDMA	EVDO Rev. 0	22.7	22.46	-0.14	0 mm	-	00367	1:1	bottom	2.220	1.057	2.347	
1908.75	1175	PCS CDMA	EVDO Rev. 0	22.7	22.43	-0.14	0 mm	-	00367	1:1	bottom	2.230	1.064	2.373	
1908.75	1175	PCS CDMA	EVDO Rev. 0	24.7	24.56	-0.03	0 mm	1	00342	1:1	bottom	2.720	1.033	2.810	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.07	2 mm	-	00342	1:1	back	1.620	1.072	1.737	
1712.40	1312	UMTS 1750	RMC	24.7	24.36	-0.04	0 mm	1	00342	1:1	back	2.310	1.081	2.497	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.04	0 mm	1	00342	1:1	back	2.430	1.072	2.605	
1752.60	1513	UMTS 1750	RMC	24.7	24.60	-0.01	0 mm	1	00342	1:1	back	2.560	1.023	2.619	A64
1712.40	1312	UMTS 1750	RMC	24.7	24.36	-0.15	1 mm	-	00342	1:1	front	1.990	1.081	2.151	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.19	1 mm	-	00342	1:1	front	2.000	1.072	2.144	
1752.60	1513	UMTS 1750	RMC	24.7	24.60	-0.18	1 mm	-	00342	1:1	front	2.040	1.023	2.087	
1712.40	1312	UMTS 1750	RMC	24.7	24.36	-0.16	0 mm	3	00342	1:1	front	2.420	1.081	2.616	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.20	0 mm	3	00342	1:1	front	2.370	1.072	2.541	
1752.60	1513	UMTS 1750	RMC	24.7	24.60	-0.17	0 mm	3	00342	1:1	front	2.330	1.023	2.384	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.06	3 mm	-	00342	1:1	bottom	1.820	1.072	1.951	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.07	0 mm	1	00342	1:1	bottom	1.600	1.072	1.715	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.09	0 mm	-	00342	1:1	left	0.599	1.072	0.642	
1732.40	1412	UMTS 1750	RMC	24.7	24.40	-0.11	0 mm	1	00342	1:1	left	0.167	1.072	0.179	
1712.40	1312	UMTS 1750	RMC	22.7	22.48	0.16	0 mm	-	00383	1:1	back	1.790	1.052	1.883	
1732.40	1412	UMTS 1750	RMC	22.7	22.51	0.15	0 mm	-	00383	1:1	back	1.790	1.045	1.871	
1752.60	1513	UMTS 1750	RMC	22.7	22.47	0.16	0 mm	-	00383	1:1	back	1.820	1.054	1.918	
1732.40	1412	UMTS 1750	RMC	22.7	22.51	0.14	0 mm	-	00383	1:1	front	1.610	1.045	1.682	
1732.40	1412	UMTS 1750	RMC	22.7	22.51	0.04	0 mm	-	00383	1:1	bottom	1.710	1.045	1.787	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.12	2 mm	-	00342	1:1	back	1.440	1.074	1.547	
1852.40	9262	UMTS 1900	RMC	24.7	24.37	-0.12	0 mm	1	00359	1:1	back	2.170	1.079	2.341	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.18	0 mm	1	00359	1:1	back	2.200	1.074	2.363	
1907.60	9538	UMTS 1900	RMC	24.7	24.32	-0.18	0 mm	1	00359	1:1	back	2.230	1.091	2.433	A65
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.05	1 mm	-	00342	1:1	front	1.370	1.074	1.471	
1852.40	9262	UMTS 1900	RMC	24.7	24.37	-0.16	0 mm	3	00359	1:1	front	2.060	1.079	2.223	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.16	0 mm	3	00359	1:1	front	2.180	1.074	2.341	
1907.60	9538	UMTS 1900	RMC	24.7	24.32	0.18	0 mm	3	00359	1:1	front	2.210	1.091	2.411	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.06	3 mm	-	00342	1:1	bottom	1.830	1.074	1.965	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.10	0 mm	1	00359	1:1	bottom	1.580	1.074	1.697	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	0.00	0 mm	-	00342	1:1	left	0.473	1.074	0.508	
1880.00	9400	UMTS 1900	RMC	24.7	24.39	-0.01	0 mm	1	00359	1:1	left	0.130	1.074	0.140	
1880.00	9400	UMTS 1900	RMC	22.7	22.39	0.14	0 mm	-	00367	1:1	back	1.850	1.074	1.987	
1880.00	9400	UMTS 1900	RMC	22.7	22.39	-0.15	0 mm	-	00367	1:1	front	1.300	1.074	1.396	
1852.40	9262	UMTS 1900	RMC	22.7	22.41	-0.01	0 mm	-	00367	1:1	bottom	2.170	1.069	2.320	
1880.00	9400	UMTS 1900	RMC	22.7	22.39	-0.01	0 mm	-	00367	1:1	bottom	2.100	1.074	2.255	
1907.60	9538	UMTS 1900	RMC	22.7	22.46	-0.01	0 mm	-	00367	1:1	bottom	2.040	1.057	2.156	
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Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees) 3) Blue entry represents variability measurement.

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Table 11-64
LTE Band 66 (AWS) Antenna 2 Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	25.2	25.03	-0.05	0	00367	QPSK	1	50	2 mm	back	1:1	1.970	1.040	2.049	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	25.2	25.20	0.13	0	00367	QPSK	1	50	2 mm	back	1:1	2.110	1.000	2.110	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	25.2	25.18	-0.04	0	00367	QPSK	1	50	2 mm	back	1:1	2.140	1.005	2.151	
1720.00	132072	Low	LTE Band 66 (AWS)	20	1	25.2	25.03	0.12	0	00367	QPSK	1	50	0 mm	back	1:1	2.510	1.040	2.610	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	25.2	25.20	0.15	0	00367	QPSK	1	50	0 mm	back	1:1	2.640	1.000	2.640	
1770.00	132572	High	LTE Band 66 (AWS)	20	1	25.2	25.18	0.19	0	00367	QPSK	1	50	0 mm	back	1:1	2.640	1.005	2.653	A66
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	24.2	24.20	-0.04	1	00367	QPSK	50	25	2 mm	back	1:1	1.690	1.000	1.690	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	24.2	24.19	-0.06	1	00367	QPSK	100	0	2 mm	back	1:1	1.730	1.002	1.733	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	25.2	25.03	-0.11	0	00367	QPSK	1	50	1 mm	front	1:1	2.090	1.040	2.174	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	25.2	25.20	-0.15	0	00367	QPSK	1	50	1 mm	front	1:1	2.210	1.000	2.210	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	25.2	25.18	-0.14	0	00367	QPSK	1	50	1 mm	front	1:1	2.200	1.005	2.211	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	3	25.2	25.20	0.17	0	00367	QPSK	1	50	0 mm	front	1:1	1.200	1.000	1.200	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	24.2	24.20	-0.14	1	00367	QPSK	50	25	1 mm	front	1:1	1.790	1.000	1.790	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	24.2	24.19	-0.13	1	00367	QPSK	100	0	1 mm	front	1:1	1.800	1.002	1.804	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	25.2	25.03	-0.09	0	00367	QPSK	1	50	3 mm	bottom	1:1	2.140	1.040	2.226	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	25.2	25.20	-0.08	0	00367	QPSK	1	50	3 mm	bottom	1:1	2.280	1.000	2.280	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	25.2	25.18	-0.08	0	00367	QPSK	1	50	3 mm	bottom	1:1	2.180	1.005	2.191	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	25.2	25.20	0.06	0	00367	QPSK	1	50	0 mm	bottom	1:1	1.690	1.000	1.690	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	24.2	24.20	-0.09	1	00367	QPSK	50	25	3 mm	bottom	1:1	1.850	1.000	1.850	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	24.2	24.19	-0.04	1	00367	QPSK	100	0	3 mm	bottom	1:1	1.780	1.002	1.784	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	25.2	25.20	-0.07	0	00367	QPSK	1	50	0 mm	left	1:1	0.707	1.000	0.707	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	25.2	25.20	0.08	0	00367	QPSK	1	50	0 mm	left	1:1	0.178	1.000	0.178	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	24.2	24.20	-0.14	1	00367	QPSK	50	25	0 mm	left	1:1	0.562	1.000	0.562	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	22.85	0.12	0	00342	QPSK	1	50	0 mm	back	1:1	2.090	1.084	2.266	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	22.92	0.11	0	00342	QPSK	1	50	0 mm	back	1:1	2.110	1.067	2.251	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.96	-0.02	0	00342	QPSK	1	50	0 mm	back	1:1	2.210	1.057	2.336	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	22.88	-0.03	0	00342	QPSK	50	50	0 mm	back	1:1	2.240	1.076	2.410	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.02	0.00	0	00342	QPSK	50	25	0 mm	back	1:1	2.260	1.042	2.355	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.03	0.14	0	00342	QPSK	50	25	0 mm	back	1:1	2.340	1.040	2.434	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.95	0.16	0	00342	QPSK	100	0	0 mm	back	1:1	2.300	1.059	2.436	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	22.85	0.00	0	00342	QPSK	1	50	0 mm	front	1:1	1.940	1.084	2.103	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	22.92	-0.01	0	00342	QPSK	1	50	0 mm	front	1:1	2.000	1.067	2.134	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.96	-0.03	0	00342	QPSK	1	50	0 mm	front	1:1	2.020	1.057	2.135	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	22.88	0.00	0	00342	QPSK	50	50	0 mm	front	1:1	1.970	1.076	2.120	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.02	-0.03	0	00342	QPSK	50	25	0 mm	front	1:1	2.040	1.042	2.126	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.03	0.01	0	00342	QPSK	50	25	0 mm	front	1:1	2.070	1.040	2.153	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.95	0.00	0	00342	QPSK	100	0	0 mm	front	1:1	2.050	1.059	2.171	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	22.85	-0.01	0	00342	QPSK	1	50	0 mm	bottom	1:1	2.190	1.084	2.374	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	22.92	0.12	0	00342	QPSK	1	50	0 mm	bottom	1:1	2.310	1.067	2.465	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.96	-0.02	0	00342	QPSK	1	50	0 mm	bottom	1:1	2.440	1.057	2.579	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	22.88	0.16	0	00342	QPSK	50	50	0 mm	bottom	1:1	2.210	1.076	2.378	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.02	0.02	0	00342	QPSK	50	25	0 mm	bottom	1:1	2.380	1.042	2.480	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.03	0.02	0	00342	QPSK	50	25	0 mm	bottom	1:1	2.530	1.040	2.631	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	22.95	-0.01	0	00342	QPSK	100	0	0 mm	bottom	1:1	2.470	1.059	2.616	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Phablet 4.0 W/kg (mW/g) averaged over 10 grams			

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees)

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Table 11-65
LTE Band 66 (AWS) Antenna 3 Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.5	23.47	-0.11	0	00318	QPSK	1	99	2 mm	back	1:1	0.744	1.007	0.749	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	22.5	22.37	-0.06	1	00318	QPSK	50	0	2 mm	back	1:1	0.689	1.030	0.710	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.5	23.47	-0.01	0	00318	QPSK	1	99	1 mm	front	1:1	1.040	1.007	1.047	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	22.5	22.37	0.12	1	00318	QPSK	50	0	1 mm	front	1:1	0.847	1.030	0.872	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.5	23.47	-0.02	0	00318	QPSK	1	99	3 mm	bottom	1:1	0.110	1.007	0.111	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	22.5	22.37	0.00	1	00318	QPSK	50	0	3 mm	bottom	1:1	0.090	1.030	0.093	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.5	23.47	-0.04	0	00318	QPSK	1	99	2 mm	right	1:1	1.500	1.007	1.511	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	22.5	22.37	0.00	1	00318	QPSK	50	0	2 mm	right	1:1	1.280	1.030	1.318	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	0.04	0	00318	QPSK	1	0	0 mm	back	1:1	1.540	1.026	1.580	
1720.00	132072	Low	LTE Band 66 (AWS)	20	1	23.5	23.47	0.04	0	00318	QPSK	1	99	0 mm	back	1:1	0.913	1.007	0.919	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	0.02	0.7	00318	QPSK	50	0	0 mm	back	1:1	1.150	1.026	1.180	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	0.12	0	00318	QPSK	1	0	0 mm	front	1:1	1.240	1.026	1.272	
1720.00	132072	Low	LTE Band 66 (AWS)	20	3	23.5	23.47	0.01	0	00318	QPSK	1	99	0 mm	front	1:1	1.120	1.007	1.128	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	-0.17	0.7	00318	QPSK	50	0	0 mm	front	1:1	1.070	1.026	1.098	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	-0.03	0	00318	QPSK	1	0	0 mm	bottom	1:1	0.200	1.026	0.205	
1720.00	132072	Low	LTE Band 66 (AWS)	20	1	23.5	23.47	0.14	0	00318	QPSK	1	99	0 mm	bottom	1:1	0.191	1.007	0.192	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	-0.16	0.7	00318	QPSK	50	0	0 mm	bottom	1:1	0.177	1.026	0.182	
1720.00	132072	Low	LTE Band 66 (AWS)	20	-	23.2	23.00	-0.04	0	00318	QPSK	1	99	0 mm	right	1:1	2.130	1.047	2.230	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	-	23.2	23.09	0.02	0	00318	QPSK	1	0	0 mm	right	1:1	2.210	1.026	2.267	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	23.2	23.07	0.01	0	00318	QPSK	1	50	0 mm	right	1:1	2.100	1.030	2.163	
1720.00	132072	Low	LTE Band 66 (AWS)	20	1	23.5	23.47	0.01	0	00318	QPSK	1	99	0 mm	right	1:1	2.070	1.007	2.084	
1745.00	132322	Mid	LTE Band 66 (AWS)	20	1	23.5	23.33	0.00	0	00318	QPSK	1	0	0 mm	right	1:1	2.100	1.040	2.184	
1770.00	132572	High	LTE Band 66 (AWS)	20	1	23.5	23.37	0.00	0	00318	QPSK	1	99	0 mm	right	1:1	1.950	1.030	2.009	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.39	-0.01	0.7	00318	QPSK	50	0	0 mm	right	1:1	1.750	1.026	1.796	
1770.00	132572	High	LTE Band 66 (AWS)	20	-	22.5	22.30	0.00	0.7	00318	QPSK	100	0	0 mm	right	1:1	1.730	1.047	1.811	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Phablet 4.0 W/kg (mW/g) averaged over 10 grams											

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees)

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Table 11-66
LTE Band 25 (PCS) Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	25.2	25.01	0.11	0	00367	QPSK	1	50	2 mm	back	1:1	1.670	1.045	1.745	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	24.2	23.88	0.18	1	00367	QPSK	50	0	2 mm	back	1:1	1.440	1.076	1.549	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	25.2	25.01	-0.04	0	00367	QPSK	1	50	1 mm	front	1:1	1.510	1.045	1.578	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	24.2	23.88	-0.03	1	00367	QPSK	50	0	1 mm	front	1:1	1.320	1.076	1.420	
1860.00	26140	Low	LTE Band 25 (PCS)	20	-	25.2	25.00	0.01	0	00367	QPSK	1	50	3 mm	bottom	1:1	2.140	1.047	2.241	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	25.2	24.75	-0.03	0	00367	QPSK	1	50	3 mm	bottom	1:1	2.160	1.109	2.395	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	25.2	25.01	-0.05	0	00367	QPSK	1	50	3 mm	bottom	1:1	2.070	1.045	2.163	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	24.2	23.88	-0.06	1	00367	QPSK	50	0	3 mm	bottom	1:1	1.820	1.076	1.958	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	24.2	23.73	-0.03	1	00367	QPSK	100	0	3 mm	bottom	1:1	1.720	1.114	1.916	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	25.2	25.01	-0.12	0	00367	QPSK	1	50	0 mm	left	1:1	0.547	1.045	0.572	
1905.00	26590	High	LTE Band 25 (PCS)	20	1	25.2	25.01	0.16	0	00367	QPSK	1	50	0 mm	left	1:1	0.220	1.045	0.230	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	24.2	23.88	-0.11	1	00367	QPSK	50	0	0 mm	left	1:1	0.484	1.076	0.521	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.03	0.06	0	00342	QPSK	1	50	0 mm	back	1:1	1.570	1.040	1.633	
1905.00	26590	High	LTE Band 25 (PCS)	20	1	25.2	25.01	0.19	0	00367	QPSK	1	50	0 mm	back	1:1	1.900	1.045	1.986	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	0.06	0	00342	QPSK	50	50	0 mm	back	1:1	1.640	1.035	1.697	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.03	-0.13	0	00342	QPSK	1	50	0 mm	front	1:1	1.660	1.040	1.726	
1905.00	26590	High	LTE Band 25 (PCS)	20	3	25.2	25.01	0.03	0	00367	QPSK	1	50	0 mm	front	1:1	1.910	1.045	1.996	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	-0.20	0	00342	QPSK	50	50	0 mm	front	1:1	1.740	1.035	1.801	
1860.00	26140	Low	LTE Band 25 (PCS)	20	-	23.2	23.01	0.01	0	00342	QPSK	1	50	0 mm	bottom	1:1	2.510	1.045	2.623	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.03	0.02	0	00342	QPSK	1	50	0 mm	bottom	1:1	2.390	1.040	2.486	
1905.00	26590	High	LTE Band 25 (PCS)	20	-	23.2	22.95	-0.02	0	00342	QPSK	1	50	0 mm	bottom	1:1	2.270	1.059	2.404	
1860.00	26140	Low	LTE Band 25 (PCS)	20	1	25.2	25.00	-0.09	0	00367	QPSK	1	50	0 mm	bottom	1:1	2.220	1.047	2.324	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	1	25.2	24.75	0.14	0	00367	QPSK	1	50	0 mm	bottom	1:1	2.590	1.109	2.872	
1905.00	26590	High	LTE Band 25 (PCS)	20	1	25.2	25.01	-0.06	0	00367	QPSK	1	50	0 mm	bottom	1:1	2.140	1.045	2.236	
1860.00	26140	Low	LTE Band 25 (PCS)	20	-	23.2	23.03	0.01	0	00342	QPSK	50	50	0 mm	bottom	1:1	2.580	1.040	2.683	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.05	0.06	0	00342	QPSK	50	50	0 mm	bottom	1:1	2.590	1.035	2.681	A67
1905.00	26590	High	LTE Band 25 (PCS)	20	-	23.2	23.04	-0.02	0	00342	QPSK	50	0	0 mm	bottom	1:1	2.490	1.038	2.585	
1882.50	26365	Mid	LTE Band 25 (PCS)	20	-	23.2	23.01	0.01	0	00342	QPSK	100	0	0 mm	bottom	1:1	2.490	1.045	2.602	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**	**Phablet** **4.0 W/kg (mW/g)** averaged over 10 grams

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees)

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Table 11-67
LTE Band 2 (PCS) Antenna 3 Phablet SAR

MEASUREMENT RESULTS																				
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																(W/kg)		(W/kg)	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.5	22.94	-0.19	0	00359	QPSK	1	99	2 mm	back	1:1	0.636	1.138	0.724	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.16	1	00359	QPSK	50	25	2 mm	back	1:1	0.616	1.122	0.691	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.5	22.94	0.00	0	00359	QPSK	1	99	1 mm	front	1:1	1.160	1.138	1.320	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	0.04	1	00359	QPSK	50	25	1 mm	front	1:1	0.848	1.122	0.951	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.5	22.94	-0.11	0	00359	QPSK	1	99	3 mm	bottom	1:1	0.629	1.138	0.716	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.11	1	00359	QPSK	50	25	3 mm	bottom	1:1	0.602	1.122	0.675	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.5	22.94	0.04	0	00359	QPSK	1	99	2 mm	right	1:1	1.300	1.138	1.479	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.18	1	00359	QPSK	50	25	2 mm	right	1:1	1.320	1.122	1.481	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	-0.19	0	00318	QPSK	1	50	0 mm	back	1:1	0.947	1.086	1.028	
1900.00	19100	High	LTE Band 2 (PCS)	20	1	23.5	22.94	0.14	0	00359	QPSK	1	99	0 mm	back	1:1	0.691	1.138	0.786	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.18	0.7	00318	QPSK	50	0	0 mm	back	1:1	0.840	1.122	0.942	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	0.03	0	00318	QPSK	1	50	0 mm	front	1:1	0.786	1.086	0.854	
1900.00	19100	High	LTE Band 2 (PCS)	20	3	23.5	22.94	-0.03	0	00359	QPSK	1	99	0 mm	front	1:1	0.868	1.138	0.988	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	0.00	0.7	00318	QPSK	50	0	0 mm	front	1:1	0.751	1.122	0.843	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	-0.14	0	00318	QPSK	1	50	0 mm	bottom	1:1	0.270	1.086	0.293	
1900.00	19100	High	LTE Band 2 (PCS)	20	1	23.5	22.94	0.03	0	00359	QPSK	1	99	0 mm	bottom	1:1	0.208	1.138	0.237	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.04	0.7	00318	QPSK	50	0	0 mm	bottom	1:1	0.227	1.122	0.255	
1860.00	18700	Low	LTE Band 2 (PCS)	20	-	23.2	22.38	-0.19	0	00318	QPSK	1	50	0 mm	right	1:1	1.730	1.208	2.090	
1880.00	18900	Mid	LTE Band 2 (PCS)	20	-	23.2	22.49	-0.11	0	00318	QPSK	1	50	0 mm	right	1:1	1.750	1.178	2.062	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	23.2	22.84	0.19	0	00318	QPSK	1	50	0 mm	right	1:1	2.010	1.086	2.183	A68
1900.00	19100	High	LTE Band 2 (PCS)	20	1	23.5	22.94	-0.15	0	00359	QPSK	1	99	0 mm	right	1:1	1.270	1.138	1.445	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	22.00	-0.19	0.7	00318	QPSK	50	0	0 mm	right	1:1	1.250	1.122	1.403	
1900.00	19100	High	LTE Band 2 (PCS)	20	-	22.5	21.66	0.18	0.7	00318	QPSK	100	0	0 mm	right	1:1	1.780	1.213	2.159	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																	Phablet 4.0 W/kg (mW/g) averaged over 10 grams			

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees)

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Table 11-68
LTE Band 41 Phablet SAR

MEASUREMENT RESULTS																								
1 CC Uplink | 2 CC Uplink, Power Class	Component Carrier	FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
		MHz	Ch.																(W/kg)		(W/kg)	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	25.2	25.13	-0.13	0	00383	QPSK	1	50	2 mm	back	1:1.58	0.996	1.016	1.012	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.13	-0.12	1	00383	QPSK	50	25	2 mm	back	1:1.58	0.792	1.016	0.805	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	25.2	25.13	-0.14	0	00383	QPSK	1	50	1 mm	front	1:1.58	1.400	1.016	1.422	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.13	-0.08	1	00383	QPSK	50	25	1 mm	front	1:1.58	1.130	1.016	1.148	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	25.2	25.13	-0.02	0	00383	QPSK	1	50	3 mm	bottom	1:1.58	1.240	1.016	1.260	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.13	-0.04	1	00383	QPSK	50	25	3 mm	bottom	1:1.58	1.010	1.016	1.026	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	25.2	25.13	-0.03	0	00383	QPSK	1	50	0 mm	left	1:1.58	0.327	1.016	0.332	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	1	25.2	25.13	-0.09	0	00383	QPSK	1	50	0 mm	left	1:1.58	0.088	1.016	0.089	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.13	0.18	1	00383	QPSK	50	25	0 mm	left	1:1.58	0.267	1.016	0.271	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	1	25.2	25.10	-0.01	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.420	1.023	1.453	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	1	25.2	25.12	0.00	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.440	1.019	1.467	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	1	25.2	25.13	-0.03	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.610	1.016	1.636	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	1	25.2	24.96	0.00	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.590	1.057	1.681	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	1	25.2	25.11	-0.01	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.410	1.021	1.440	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	-	24.2	24.04	-0.12	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.900	1.038	1.972	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	-	24.2	24.04	-0.18	0	00383	QPSK	1	50	0 mm	back	1:1.58	2.070	1.038	2.149	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.05	-0.06	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.920	1.035	1.987	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.92	0.13	0	00383	QPSK	1	50	0 mm	back	1:1.58	1.910	1.067	2.038	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	-	24.2	24.00	-0.17	0	00383	QPSK	1	50	0 mm	back	1:1.58	2.160	1.047	2.262	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	-	24.2	24.07	-0.21	0	00383	QPSK	50	25	0 mm	back	1:1.58	1.960	1.030	2.019	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	-	24.2	24.09	-0.21	0	00383	QPSK	50	25	0 mm	back	1:1.58	2.140	1.026	2.196	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.10	-0.07	0	00383	QPSK	50	25	0 mm	back	1:1.58	2.000	1.023	2.046	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.99	0.19	0	00383	QPSK	50	25	0 mm	back	1:1.58	2.030	1.050	2.132	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	-	24.2	24.02	-0.19	0	00383	QPSK	50	25	0 mm	back	1:1.58	2.180	1.042	2.272	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.04	-0.12	0	00383	QPSK	100	0	0 mm	back	1:1.58	1.990	1.038	2.066	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.05	-0.04	0	00383	QPSK	1	50	0 mm	front	1:1.58	1.370	1.035	1.418	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	3	25.2	25.13	-0.02	0	00383	QPSK	1	50	0 mm	front	1:1.58	0.418	1.016	0.425	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.10	-0.10	0	00383	QPSK	50	25	0 mm	front	1:1.58	1.380	1.023	1.412	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	-	24.2	24.04	0.10	0	00383	QPSK	1	50	0 mm	bottom	1:1.58	2.040	1.038	2.118	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	-	24.2	24.04	0.06	0	00383	QPSK	1	50	0 mm	bottom	1:1.58	1.960	1.038	2.034	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.05	-0.01	0	00383	QPSK	1	50	0 mm	bottom	1:1.58	2.020	1.035	2.091	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	1	25.2	25.13	-0.02	0	00383	QPSK	1	50	0 mm	bottom	1:1.58	1.070	1.016	1.087	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.92	0.07	0	00383	QPSK	1	50	0 mm	bottom	1:1.58	2.140	1.067	2.283	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	-	24.2	24.00	0.09	0	00383	QPSK	1	50	0 mm	bottom	1:1.58	2.020	1.047	2.115	
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	-	24.2	24.07	0.07	0	00383	QPSK	50	25	0 mm	bottom	1:1.58	2.140	1.030	2.204	
1 CC Uplink - Power Class 3	N/A	2549.50	40185	Low-Mid	LTE Band 41	20	-	24.2	24.09	0.08	0	00383	QPSK	50	25	0 mm	bottom	1:1.58	2.050	1.026	2.103	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.10	-0.02	0	00383	QPSK	50	25	0 mm	bottom	1:1.58	2.110	1.023	2.159	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.96	0.01	0	00383	QPSK	50	0	0 mm	bottom	1:1.58	2.270	1.057	2.399	
1 CC Uplink - Power Class 3	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.99	0.08	0	00383	QPSK	50	25	0 mm	bottom	1:1.58	2.260	1.050	2.373	
1 CC Uplink - Power Class 3	N/A	2680.00	41490	High	LTE Band 41	20	-	24.2	24.02	0.10	0	00383	QPSK	50	25	0 mm	bottom	1:1.58	2.060	1.042	2.147	
1 CC Uplink - Power Class 3	N/A	2593.00	40620	Mid	LTE Band 41	20	-	24.2	24.04	0.06	0	00383	QPSK	100	0	0 mm	bottom	1:1.58	2.250	1.038	2.336	
1 CC Uplink - Power Class 2	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	26.7	25.97	0.00	0	00383	QPSK	50	0	0 mm	bottom	1:2.31	2.230	1.183	2.638	
1 CC Uplink - Power Class 2	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	26.7	26.04	0.11	0	00383	QPSK	50	25	0 mm	bottom	1:2.31	2.340	1.164	2.724	A69
2 CC Uplink - Power Class 3	PCC	2636.50	41055	Mid-High	LTE Band 41	20	-	24.2	23.12	0.05	0	00383	QPSK	50	0	0 mm	bottom	1:1.58	1.780	1.282	2.282	
	SCC	2616.70	40857	Mid-High		20							QPSK	50	50							
2 CC Uplink - Power Class 2	PCC	2636.50	41055	Mid-High	LTE Band 41	20	-	26.7	25.10	0.00	0	00383	QPSK	50	0	0 mm	bottom	1:2.31	1.840	1.445	2.659	
	SCC	2616.70	40857	Mid-High		20							QPSK	50	50							
1 CC Uplink - Power Class 3	N/A	2506.00	39750	Low	LTE Band 41	20	-	24.2	24.07	-0.01	0	00383	QPSK	50	25	0 mm	bottom	1:1.58	1.950	1.030	2.009	
1 CC Uplink - Power Class 2	N/A	2636.50	41055	Mid-High	LTE Band 41	20	-	26.7	26.04	-0.11	0	00383	QPSK	50	25	0 mm	bottom	1:2.31	2.270	1.164	2.642	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Phablet
Spatial Peak	4.0 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 10 grams

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees) 3) Blue entries represent variability measurements.

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Table 11-69
NR n66 (AWS) Antenna 2 Standalone Phablet SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Cover Type	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g) (W/kg)	Scaling Factor	Reported SAR (10g) (W/kg)	Plot #
MHz	Ch.																				
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.14	0.03	0	00391	DFT-S-OFDM	QPSK	1	108	2 mm	back	1:1	2.020	1.014	2.048	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.12	0.04	0	00391	DFT-S-OFDM	QPSK	108	108	2 mm	back	1:1	1.820	1.019	1.855	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.07	-0.17	0	00391	DFT-S-OFDM	QPSK	216	0	2 mm	back	1:1	1.700	1.030	1.751	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.14	-0.05	0	00391	DFT-S-OFDM	QPSK	1	108	1mm	front	1:1	2.210	1.014	2.241	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.12	-0.12	0	00391	DFT-S-OFDM	QPSK	108	108	1mm	front	1:1	2.270	1.019	2.313	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.07	0.12	0	00391	DFT-S-OFDM	QPSK	216	0	1mm	front	1:1	2.070	1.030	2.132	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.38	-0.15	1.5	00391	CP-OFDM	QPSK	1	1	1mm	front	1:1	1.450	1.076	1.560	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.14	0.02	0	00391	DFT-S-OFDM	QPSK	1	108	3 mm	bottom	1:1	2.040	1.014	2.069	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.12	0.01	0	00391	DFT-S-OFDM	QPSK	108	108	3 mm	bottom	1:1	1.960	1.019	1.997	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.07	0.03	0	00391	DFT-S-OFDM	QPSK	216	0	3 mm	bottom	1:1	1.820	1.030	1.875	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.14	0.00	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	left	1:1	0.738	1.014	0.748	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	-0.12	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	left	1:1	0.230	1.014	0.233	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.2	25.12	0.06	0	00391	DFT-S-OFDM	QPSK	108	108	0 mm	left	1:1	0.689	1.019	0.702	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.20	0.01	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	1.830	1.000	1.830	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	-0.06	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	3.010	1.014	**3.052**	A70
1745.00	349000	Mid	NR Band n66 (AWS)	40	2	25.2	25.14	0.12	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	3.000	1.014	3.042	
1745.00	349000	Mid	NR Band n66 (AWS)	40	3	25.2	25.14	0.03	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	0.777	1.014	0.788	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.19	0.01	0	00391	DFT-S-OFDM	QPSK	108	54	0 mm	back	1:1	1.640	1.002	1.643	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.16	0.01	0	00391	DFT-S-OFDM	QPSK	216	0	0 mm	back	1:1	2.050	1.009	2.068	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.20	0.00	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	1.740	1.000	1.740	
1745.00	349000	Mid	NR Band n66 (AWS)	40	3	25.2	25.14	-0.12	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	2.800	1.014	2.839	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.19	-0.01	0	00391	DFT-S-OFDM	QPSK	108	54	0 mm	front	1:1	1.690	1.002	1.693	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.20	-0.04	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	1.960	1.000	1.960	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	-0.06	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	2.000	1.014	2.028	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.19	0.15	0	00391	DFT-S-OFDM	QPSK	108	54	0 mm	bottom	1:1	1.980	1.002	1.984	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.2	23.16	-0.06	0	00391	DFT-S-OFDM	QPSK	216	0	0 mm	bottom	1:1	2.290	1.009	2.311	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.2	25.14	-0.06	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	2.920	1.014	2.961	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**											**Phablet** **4.0 W/kg (mW/g)** averaged over 10 grams										

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Purple entries represent additional Phablet SAR Position (DD #2: 180 degrees) 3) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees) 4) Blue entry represents variability measurement.

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Table 11-70
NR n66 (AWS) Antenna 3 Phablet SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.60	-0.08	0	00391	DFT-S-OFDM	QPSK	1	108	2 mm	back	1:1	1.190	1.023	1.217	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.55	0.12	0	00391	DFT-S-OFDM	QPSK	108	54	2 mm	back	1:1	1.350	1.035	1.397	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.60	-0.02	0	00391	DFT-S-OFDM	QPSK	1	108	1 mm	front	1:1	1.410	1.023	1.442	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.55	0.00	0	00391	DFT-S-OFDM	QPSK	108	54	1 mm	front	1:1	1.340	1.035	1.387	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.60	0.00	0	00391	DFT-S-OFDM	QPSK	1	108	3 mm	bottom	1:1	0.160	1.023	0.164	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.55	0.13	0	00391	DFT-S-OFDM	QPSK	108	54	3 mm	bottom	1:1	0.188	1.035	0.195	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.60	0.07	0	00391	DFT-S-OFDM	QPSK	1	108	2 mm	right	1:1	2.390	1.023	2.445	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.55	-0.18	0	00391	DFT-S-OFDM	QPSK	108	54	2 mm	right	1:1	2.050	1.035	2.122	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	25.7	25.43	-0.12	0	00391	DFT-S-OFDM	QPSK	216	0	2 mm	right	1:1	1.910	1.064	2.032	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	-0.05	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	1.240	1.112	1.379	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.7	25.60	-0.07	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	1.130	1.023	1.156	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	-0.06	0	00391	DFT-S-OFDM	QPSK	108	54	0 mm	back	1:1	1.310	1.086	1.423	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	0.18	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	1.030	1.112	1.145	
1745.00	349000	Mid	NR Band n66 (AWS)	40	3	25.7	25.60	-0.17	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	1.240	1.023	1.269	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	0.02	0	00391	DFT-S-OFDM	QPSK	108	54	0 mm	front	1:1	1.010	1.086	1.097	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	0.02	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	0.198	1.112	0.220	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.7	25.60	0.06	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	0.549	1.023	0.562	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	0.05	0	00391	DFT-S-OFDM	QPSK	108	54	0 mm	bottom	1:1	0.198	1.086	0.215	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.24	-0.02	0	00391	DFT-S-OFDM	QPSK	1	108	0 mm	right	1:1	2.260	1.112	2.513	
1745.00	349000	Mid	NR Band n66 (AWS)	40	1	25.7	25.60	0.00	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	right	1:1	2.330	1.023	2.384	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.34	-0.03	0	00391	DFT-S-OFDM	QPSK	108	54	0 mm	right	1:1	2.440	1.086	2.650	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	23.23	-0.04	0	00391	DFT-S-OFDM	QPSK	216	0	0 mm	right	1:1	2.370	1.114	2.640	
1745.00	349000	Mid	NR Band n66 (AWS)	40	-	23.7	22.89	0.00	0	00391	CP-OFDM	QPSK	1	1	0 mm	right	1:1	2.090	1.205	2.518	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees)

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Table 11-71
NR n25 (PCS) Antenna 2 Standalone Phablet SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Cover Type	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g) (W/kg)	Scaling Factor	Reported SAR (10g) (W/kg)	Plot #
MHz	Ch.																				
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.96	0.15	0	00409	DFT-S-OFDM	QPSK	1	108	2 mm	back	1:1	1.530	1.057	1.617	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.93	0.13	0	00409	DFT-S-OFDM	QPSK	108	54	2 mm	back	1:1	1.580	1.064	1.681	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.96	-0.21	0	00409	DFT-S-OFDM	QPSK	1	108	1 mm	front	1:1	1.840	1.057	1.945	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.93	-0.12	0	00409	DFT-S-OFDM	QPSK	108	54	1 mm	front	1:1	1.860	1.064	1.979	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.03	-0.08	1.5	00409	CP-OFDM	QPSK	1	1	1 mm	front	1:1	1.030	1.167	1.202	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.96	-0.07	0	00409	DFT-S-OFDM	QPSK	1	108	3 mm	bottom	1:1	1.660	1.057	1.755	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.93	-0.05	0	00409	DFT-S-OFDM	QPSK	108	54	3 mm	bottom	1:1	1.820	1.064	1.936	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.96	0.13	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	left	1:1	0.429	1.057	0.453	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.2	24.96	0.00	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	left	1:1	0.270	1.057	0.285	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.2	24.93	-0.16	0	00409	DFT-S-OFDM	QPSK	108	54	0 mm	left	1:1	0.440	1.064	0.468	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.91	0.19	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	1.280	1.069	1.368	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.2	24.96	0.10	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	2.360	1.057	2.495	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	23.00	0.10	0	00409	DFT-S-OFDM	QPSK	108	54	0 mm	back	1:1	1.370	1.047	1.434	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.91	-0.12	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	1.090	1.069	1.165	
1882.50	376500	Mid	NR Band n25 (PCS)	40	3	25.2	24.96	-0.18	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	1.850	1.057	1.955	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	23.00	-0.12	0	00409	DFT-S-OFDM	QPSK	108	54	0 mm	front	1:1	1.130	1.047	1.183	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	22.91	-0.02	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	1.620	1.069	1.732	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.2	24.96	-0.03	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	2.530	1.057	2.674	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.2	23.00	-0.08	0	00409	DFT-S-OFDM	QPSK	108	54	0 mm	bottom	1:1	1.670	1.047	1.748	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population													Phablet 4.0 W/kg (mW/g) averaged over 10 grams								

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees)

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Table 11-72
NR n25 (PCS) Antenna 3 Phablet SAR

MEASUREMENT RESULTS																						
FREQUENCY			Mode	Bandwidth [MHz]	Dual Display Position	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	MPR [dB]	Serial Number	Waveform	Modulation	RB Size	RB Offset	Spacing	Side	Duty Cycle	SAR (10g)	Scaling Factor	Reported SAR (10g)	Plot #
MHz	Ch.																	(W/kg)		(W/kg)	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.63	-0.18	0	00409	DFT-S-OFDM	QPSK	1	108	2 mm	back	1:1	1.460	1.016	1.483	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.58	-0.11	0	00409	DFT-S-OFDM	QPSK	108	54	2 mm	back	1:1	1.530	1.028	1.573	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.63	-0.02	0	00409	DFT-S-OFDM	QPSK	1	108	1 mm	front	1:1	1.250	1.016	1.270	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.58	-0.02	0	00409	DFT-S-OFDM	QPSK	108	54	1 mm	front	1:1	1.340	1.028	1.378	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.63	-0.01	0	00409	DFT-S-OFDM	QPSK	1	108	3 mm	bottom	1:1	0.370	1.016	0.376	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.58	0.18	0	00409	DFT-S-OFDM	QPSK	108	54	3 mm	bottom	1:1	0.361	1.028	0.371	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.63	-0.12	0	00409	DFT-S-OFDM	QPSK	1	108	2 mm	right	1:1	2.190	1.016	2.225	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.58	-0.12	0	00409	DFT-S-OFDM	QPSK	108	54	2 mm	right	1:1	2.600	1.028	2.673	A71
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	25.7	25.38	-0.11	0	00409	DFT-S-OFDM	QPSK	216	0	2 mm	right	1:1	2.280	1.076	2.453	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	24.2	23.66	0.03	1.5	00409	CP-OFDM	QPSK	1	1	2 mm	right	1:1	1.510	1.132	1.709	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	-0.13	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	1.340	1.114	1.493	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.7	25.63	0.13	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	back	1:1	1.340	1.016	1.361	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	-0.14	0	00409	DFT-S-OFDM	QPSK	108	0	0 mm	back	1:1	1.410	1.084	1.528	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	-0.01	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	0.962	1.114	1.072	
1882.50	376500	Mid	NR Band n25 (PCS)	40	3	25.7	25.63	-0.04	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	front	1:1	1.320	1.016	1.341	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	0.01	0	00409	DFT-S-OFDM	QPSK	108	0	0 mm	front	1:1	1.080	1.084	1.171	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	0.00	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	0.353	1.114	0.393	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.7	25.63	-0.03	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	bottom	1:1	0.618	1.016	0.628	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	-0.01	0	00409	DFT-S-OFDM	QPSK	108	0	0 mm	bottom	1:1	0.353	1.084	0.383	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.23	0.13	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	right	1:1	1.610	1.114	1.794	
1882.50	376500	Mid	NR Band n25 (PCS)	40	1	25.7	25.63	-0.09	0	00409	DFT-S-OFDM	QPSK	1	108	0 mm	right	1:1	2.380	1.016	2.418	
1882.50	376500	Mid	NR Band n25 (PCS)	40	-	23.7	23.35	0.17	0	00409	DFT-S-OFDM	QPSK	108	0	0 mm	right	1:1	1.640	1.084	1.778	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population									Phablet 4.0 W/kg (mW/g) averaged over 10 grams												

Note: 1) Green entries represent additional Phablet SAR Position (DD #1: 0 degrees) 2) Light orange entries represent additional Phablet SAR Position (DD #3: 360 degrees)

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Table 11-73
WLAN Phablet SAR

MEASUREMENT RESULTS																			
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.													W/kg	(W/kg)			(W/kg)	
5280	56	802.11a	OFDM	20	19.5	19.34	-0.19	0 mm	1	00219	6	back	97.6	6.534	1.030	1.038	1.025	1.096	
5280	56	802.11a	OFDM	20	19.5	19.34	0.16	0 mm	1	00219	6	front	97.6	1.125	0.165	1.038	1.025	0.176	
5280	56	802.11a	OFDM	20	19.5	19.34	-0.16	0 mm	1	00219	6	top	97.6	1.864	-	1.038	1.025	-	
5280	56	802.11a	OFDM	20	19.5	19.34	0.00	0 mm	1	00219	6	left	97.6	2.512	0.239	1.038	1.025	0.254	
5280	56	802.11a	OFDM	20	19.5	18.61	-0.14	0 mm	2	00219	6	back	97.8	5.454	0.573	1.227	1.022	0.719	
5280	56	802.11a	OFDM	20	19.5	18.61	0.00	0 mm	2	00219	6	front	97.8	3.244	0.434	1.227	1.022	0.544	
5280	56	802.11a	OFDM	20	19.5	18.61	0.00	0 mm	2	00219	6	top	97.8	3.166	-	1.227	1.022	-	
5280	56	802.11a	OFDM	20	19.5	18.61	0.00	0 mm	2	00219	6	left	97.8	2.612	-	1.227	1.022	-	
5700	140	802.11a	OFDM	20	17.8	16.88	-0.16	0 mm	1	00219	6	back	97.6	8.434	0.955	1.236	1.025	**1.210**	
5700	140	802.11a	OFDM	20	17.8	16.88	0.00	0 mm	1	00219	6	front	97.6	1.038	0.086	1.236	1.025	0.109	
5700	140	802.11a	OFDM	20	17.8	16.88	0.00	0 mm	1	00219	6	top	97.6	1.702	-	1.236	1.025	-	
5700	140	802.11a	OFDM	20	17.8	16.88	0.00	0 mm	1	00219	6	left	97.6	3.016	0.259	1.236	1.025	0.328	
5700	140	802.11a	OFDM	20	17.8	16.86	0.00	0 mm	2	00219	6	back	97.8	2.479	0.373	1.242	1.022	0.473	
5700	140	802.11a	OFDM	20	17.8	16.86	0.17	0 mm	2	00219	6	front	97.8	1.221	0.128	1.242	1.022	0.162	
5700	140	802.11a	OFDM	20	17.8	16.86	0.02	0 mm	2	00219	6	top	97.8	0.563	-	1.242	1.022	-	
5700	140	802.11a	OFDM	20	17.8	16.86	0.01	0 mm	2	00219	6	left	97.8	1.241	-	1.242	1.022	-	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Phablet
Spatial Peak	4.0 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 10 grams

Table 11-74
WLAN MIMO Phablet SAR

MEASUREMENT RESULTS																					
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5260	52	802.11n	OFDM	20	17.4	16.99	17.4	16.50	-0.12	0 mm	MIMO	00219	13	back	97.6	7.933	0.940	1.230	1.025	1.185	
5280	56	802.11n	OFDM	20	19.5	19.23	19.5	18.46	-0.15	0 mm	MIMO	00219	13	back	97.6	10.696	1.290	1.271	1.025	1.681	A72
5320	64	802.11n	OFDM	20	17.4	16.94	17.4	16.47	0.17	0 mm	MIMO	00219	13	back	97.6	8.428	0.904	1.239	1.025	1.148	
5280	56	802.11n	OFDM	20	19.5	19.23	19.5	18.46	0.08	0 mm	MIMO	00219	13	front	97.6	4.373	0.508	1.271	1.025	0.662	
5280	56	802.11n	OFDM	20	19.5	19.23	19.5	18.46	-0.15	0 mm	MIMO	00219	13	top	97.6	3.884	-	1.271	1.025	-	
5280	56	802.11n	OFDM	20	19.5	19.23	19.5	18.46	0.09	0 mm	MIMO	00219	13	left	97.6	4.271	0.387	1.271	1.025	0.504	
5500	100	802.11n	OFDM	20	17.8	16.97	17.8	16.84	0.17	0 mm	MIMO	00219	13	back	97.6	8.769	1.040	1.247	1.025	1.329	
5500	100	802.11n	OFDM	20	17.8	16.97	17.8	16.84	-0.07	0 mm	MIMO	00219	13	front	97.6	2.367	0.284	1.247	1.025	0.363	
5500	100	802.11n	OFDM	20	17.8	16.97	17.8	16.84	0.03	0 mm	MIMO	00219	13	top	97.6	2.300	-	1.247	1.025	-	
5500	100	802.11n	OFDM	20	17.8	16.97	17.8	16.84	0.00	0 mm	MIMO	00219	13	left	97.6	3.694	0.363	1.247	1.025	0.464	

ANSI / IEEE C95.1 1992 - SAFETY LIMIT	Phablet
Spatial Peak	4.0 W/kg (mW/g)
Uncontrolled Exposure/General Population	averaged over 10 grams

Note: To achieve the 20.4 dBm maximum allowed MIMO power shown in the documentation for channel 52 and 64, each antenna transmits at a maximum allowed power of 17.4 dBm. To achieve the 22.5 dBm maximum allowed MIMO power shown in the documentation for channel 56, each antenna transmits at a maximum allowed power of 19.5 dBm. To achieve the 20.8 dBm maximum allowed MIMO power shown in the documentation for channel 100, each antenna transmits at a maximum allowed power of 17.8 dBm.

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Table 11-75
WLAN MIMO Phablet SAR for Conditions with NR Active

MEASUREMENT RESULTS																						
FREQUENCY		Mode	Service	Bandwidth [MHz]	Maximum Allowed Power (Ant 1) [dBm]	Conducted Power (Ant 1) [dBm]	Maximum Allowed Power (Ant 2) [dBm]	Conducted Power (Ant 2) [dBm]	Power Drift [dB]	Spacing	Antenna Config.	Device Serial Number	Data Rate (Mbps)	Side	Duty Cycle (%)	Peak SAR of Area Scan	SAR (10g)	Scaling Factor (Power)	Scaling Factor (Duty Cycle)	Reported SAR (10g)	Plot #
MHz	Ch.															W/kg	(W/kg)			(W/kg)	
5280	56	802.11n	OFDM	20	17.0	16.76	17.0	16.65	-0.13	0 mm	MIMO	00219	13	back	97.6	7.902	0.926	1.084	1.025	1.029	
5280	56	802.11n	OFDM	20	17.0	16.76	17.0	16.65	0.00	0 mm	MIMO	00219	13	front	97.6	2.340	0.401	1.084	1.025	0.446	
5550	110	802.11n	OFDM	40	15.0	14.81	15.0	14.94	0.19	0 mm	MIMO	00219	27	back	94.8	5.559	0.605	1.045	1.055	0.667	
5550	110	802.11n	OFDM	40	15.0	14.81	15.0	14.94	0.00	0 mm	MIMO	00219	27	front	94.8	1.268	0.152	1.045	1.055	0.168	
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population																Phablet 4.0 W/kg (mW/g) averaged over 10 grams					

Note: To achieve the 20.0 dBm maximum allowed MIMO power shown in the documentation for channel 56, each antenna transmits at a maximum allowed power of 17.0 dBm. To achieve the 18.0 dBm maximum allowed MIMO power shown in the documentation for channel 110, each antenna transmits at a maximum allowed power of 15.0 dBm.

11.5 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The orange highlights throughout the report represents the highest SAR per FCC Equipment Class reflected on the FCC Grant.
5. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
6. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
7. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 10 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
8. Per FCC KDB Publication 648474 D04v01r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported body-worn SAR was ≤ 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were required.
9. Per FCC KDB 865664 D01v01r04, variability SAR tests were performed when the measured SAR results for a frequency band were greater than or equal to 0.8 W/kg. Repeated SAR measurements are highlighted in the tables above for clarity. Please see Section 13 for variability analysis.
10. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated (See Section 6.7 for more details).
11. Per FCC KDB Publication 648474 D04v01r03, this device is considered a "phablet" since the diagonal dimension is > 160 mm and < 200 mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Additional SAR tests for phablet SAR were evaluated per KDB 616217 Section 6 (See Section 6.9 for more information)
12. Unless otherwise noted, when 10g SAR measurement is considered, a factor of 2.5 is applied to the 1g thresholds for the equivalent test cases.

GSM Test Notes:

1. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
2. Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October 2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power

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was evaluated for hotspot SAR. When the maximum frame-averaged powers are equivalent across two or more slots (within 0.25 dB), the configuration with the most number of time slots was tested.

3. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.
4. GPRS was additionally evaluated for head and body-worn exposure conditions to address possible VoIP scenarios.

CDMA Notes:

1. Head SAR for CDMA2000 mode was tested under RC3/SO55 per FCC KDB Publication 941225 D01v03r01.
2. Body-Worn SAR was tested with 1x RTT with TDSO / SO32 FCH Only. EVDO Rev0 and RevA and TDSO / SO32 FCH+SCH SAR tests were not required per the 3G SAR Test Reduction Procedure in FCC KDB Publication 941225 D01v03r01.
3. CDMA Wireless Router SAR is measured using Subtype 0/1 Physical Layer configurations for Rev. 0 according to KDB 941225 D01v03r01 procedures for data devices. Wireless Router SAR tests for Subtype 2 of Rev.A and 1x RTT configurations were not required per the 3G SAR Test Reduction Policy in KDB Publication 941225 D01v03r01.
4. Head SAR was additionally evaluated using EVDO Rev. A to determine compliance for VoIP operations.
5. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.

UMTS Notes:

1. UMTS mode was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. AMR and HSPA SAR was not required per the 3G Test Reduction Procedure in KDB Publication 941225 D01v03r01.
2. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg for 1g evaluations then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.

LTE Notes:

1. LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r04. The general test procedures used for testing can be found in Section 8.6.4.
2. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36.101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
3. A-MPR was disabled for all SAR tests by setting NS=01 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
4. Per FCC KDB Publication 447498 D01v06, when the reported LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations, testing at the other channels was required for such test configurations.
5. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r04. Testing was performed using UL-DL configuration 0 with 6 UL subframes and 2 S subframes using extended cyclic prefix only and special subframe configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Section 4, the duty factor for special subframe configuration 6 using extended cyclic prefix is 0.633.

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6. Per KDB Publication 941225 D05Av01r02, SAR for downlink only LTE CA operations was not needed since the maximum average output power in LTE CA mode was not >0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.
7. For LTE Band 41, per FCC guidance, SAR was first measured with only a single carrier active in the uplink (carrier aggregation not active). For each exposure condition, the uplink CA scenario with two component carriers was additionally tested for the configuration with the highest SAR when carrier aggregation was not active. The SCC was configured with the closest available contiguous channel. The two component carriers were configured so the resource blocks are physically allocated side by side to achieve the maximum output power.

NR Notes:

1. NR implementation is limited to EN-DC operations only. Per FCC guidance, SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. Due to test setup limitations, SAR testing for NR was performed using test mode software to establish the connection.
3. This device additionally supports some EN-DC conditions where additional LTE carriers are added on the downlink only.
4. Per FCC Guidance, NR modulations and RB Sizes/Offsets were selected for testing such that configurations with the highest output power were evaluated for SAR tests.
5. For final implementation, NR slot configuration is synchronized using LTE uplink/downlink frame configuration 2 (extended cyclic prefix uplink duty cycle = 23.33%). SAR testing was performed using FTM mode with transmission duty cycle of 21.43% and additionally scaled to 23.57% per the manufacturer NR slot format.

WLAN Notes:

1. For held-to-ear, hotspot, and phablet operations, the initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg for 1g evaluations, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n) was not required due to the maximum allowed powers and the highest reported DSSS SAR. See Section 8.7.5 for more information.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg for 1g evaluations. See Section 8.7.6 for more information.
4. When the maximum reported 1g averaged SAR is ≤0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg for 1g evaluations or all test channels were measured.
5. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools. The reported SAR was scaled to the 100% transmission duty factor to determine compliance. Procedures used to measure the duty factor are identical to that in the associated EMC test reports.
6. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D01v06 by either evaluating the sum of the 1g SAR values of each antenna transmitting independently or making a SAR measurement with both antennas transmitting simultaneously. Please see Section 12 for complete analysis.

Bluetooth Notes

1. Bluetooth SAR was measured with the device connected to a call box with hopping disabled with DH5 operation and Tx Tests test mode type. Per October 2016 TCB Workshop Notes, the reported SAR was

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scaled to the 100% transmission duty factor to determine compliance. See Section 9.7 for the time domain plot and calculation for the duty factor of the device.

2. Head and Hotspot Bluetooth SAR were evaluated for BT BR tethering applications.

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12 FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

12.1 Introduction

The following procedures adopted from FCC KDB Publication 447498 D01v06 are applicable to devices with built-in unlicensed transmitters such as 802.11 and Bluetooth devices which may simultaneously transmit with the licensed transmitter.

LTE B25 SAR additionally represents LTE B2 Ant 2 since their transmission frequency ranges are overlapped and they share the same transmission path and signal characteristics.

NR Band n41 PC2 standalone SAR data additionally represents n41 PC3 in EN-DC since they share the same transmission path and signal characteristics.

For inter-band ULCA, LTE Band 12, LTE B66/2 Ant 3 SAR at maximum power level were used for simultaneous transmission analysis since they are more conservative.

12.2 Simultaneous Transmission Procedures

This device contains transmitters that may operate simultaneously. Therefore, simultaneous transmission analysis is required. Per FCC KDB Publication 447498 D01v06 4.3.2 and IEEE 1528-2013 Section 6.3.4.1.2, simultaneous transmission SAR test exclusion may be applied when the sum of the 1g SAR for all the simultaneous transmitting antennas in a specific a physical test configuration is ≤1.6 W/kg. The different test positions in an exposure condition may be considered collectively to determine SAR test exclusion according to the sum of 1g or 10g SAR.

Per FCC KDB Publication 941225 D06v02r01, the devices edges with antennas more than 2.5 cm from edge are not required to be evaluated for SAR ("-").

(*) For test positions that were not required to be evaluated for WLAN SAR per FCC KDB publication 248227, the worst case WLAN SAR result for the applicable exposure conditions was used for simultaneous transmission analysis.

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12.3 Head SAR Simultaneous Transmission Analysis

Table 12-1
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Held to Ear)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.106	0.235	0.226	0.341	0.332	0.567
	CDMA/EVDO BC0 (§22H)	0.108	0.235	0.226	0.343	0.334	0.569
	PCS CDMA/EVDO	0.106	0.235	0.226	0.341	0.332	0.567
	GSM/GPRS 850	0.157	0.235	0.226	0.392	0.383	0.618
	GSM/GPRS 1900	0.054	0.235	0.226	0.289	0.280	0.515
	UMTS 850	0.108	0.235	0.226	0.343	0.334	0.569
	UMTS 1750	0.123	0.235	0.226	0.358	0.349	0.584
	UMTS 1900	0.105	0.235	0.226	0.340	0.331	0.566
	LTE Band 71	0.078	0.235	0.226	0.313	0.304	0.539
	LTE Band 12	0.107	0.235	0.226	0.342	0.333	0.568
	LTE Band 13	0.096	0.235	0.226	0.331	0.322	0.557
	LTE Band 26 (Cell)	0.121	0.235	0.226	0.356	0.347	0.582
	LTE Band 66 (AWS)	0.110	0.235	0.226	0.345	0.336	0.571
	LTE Band 25 (PCS)	0.087	0.235	0.226	0.322	0.313	0.548
	LTE Band 41	0.097	0.235	0.226	0.332	0.323	0.558
	NR Band n71	0.091	0.235	0.226	0.326	0.317	0.552
	NR Band n66 Ant 2	0.117	0.235	0.226	0.352	0.343	0.578
	NR Band n66 Ant 3	0.187	0.235	0.226	0.422	0.413	0.648
	NR Band n25 Ant 2	0.104	0.235	0.226	0.339	0.330	0.565
	NR Band n25 Ant 3	0.223	0.235	0.226	0.458	0.449	**0.684**
	NR Band n41	0.046	0.235	0.226	0.281	0.272	0.507

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Head SAR	LTE Band 66 (AWS)	0.110	0.091	0.235	0.226	0.436	0.427	**0.662**
	LTE Band 2 (PCS)	0.087	0.091	0.235	0.226	0.413	0.404	0.639

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Head SAR	LTE Band 12	0.107	0.187	0.235	0.226	0.529	0.520	**0.755**
	LTE Band 2 (PCS)	0.087	0.187	0.235	0.226	0.509	0.500	0.735

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Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Head SAR	LTE Band 12	0.107	0.223	0.235	0.226	0.565	0.556	0.791
	LTE Band 66 (AWS)	0.110	0.223	0.235	0.226	0.568	0.559	**0.794**

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Head SAR	LTE Band 66 (AWS)	0.110	0.046	0.235	0.226	0.156	0.345	**0.617**
	LTE Band 2 (PCS)	0.087	0.046	0.235	0.226	0.368	0.359	0.594

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Head SAR	LTE Band 66 (AWS) Ant 3	0.135	0.107	0.235	0.226	0.477	0.468	0.703
	LTE Band 2 (PCS) Ant 3	0.188	0.107	0.235	0.226	0.530	0.521	**0.756**

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Table 12-2
Simultaneous Transmission Scenario with 2.4 GHz WLAN Ant 2 and Bluetooth (Held to Ear)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.106	0.226	0.025	0.357
	CDMA/EVDO BC0 (§22H)	0.108	0.226	0.025	0.359
	PCS CDMA/EVDO	0.106	0.226	0.025	0.357
	GSM/GPRS 850	0.157	0.226	0.025	0.408
	GSM/GPRS 1900	0.054	0.226	0.025	0.305
	UMTS 850	0.108	0.226	0.025	0.359
	UMTS 1750	0.123	0.226	0.025	0.374
	UMTS 1900	0.105	0.226	0.025	0.356
	LTE Band 71	0.078	0.226	0.025	0.329
	LTE Band 12	0.107	0.226	0.025	0.358
	LTE Band 13	0.096	0.226	0.025	0.347
	LTE Band 26 (Cell)	0.121	0.226	0.025	0.372
	LTE Band 66 (AWS)	0.110	0.226	0.025	0.361
	LTE Band 25 (PCS)	0.087	0.226	0.025	0.338
	LTE Band 41	0.097	0.226	0.025	0.348
	NR Band n71	0.091	0.226	0.025	0.342
	NR Band n66 Ant 2	0.117	0.226	0.025	0.368
	NR Band n66 Ant 3	0.187	0.226	0.025	0.438
	NR Band n25 Ant 2	0.104	0.226	0.025	0.355
	NR Band n25 Ant 3	0.223	0.226	0.025	**0.474**
	NR Band n41	0.046	0.226	0.025	0.297

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 66 (AWS)	0.110	0.091	0.226	0.025	**0.452**
	LTE Band 2 (PCS)	0.087	0.091	0.226	0.025	0.429

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Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 12	0.107	0.187	0.226	0.025	**0.545**
	LTE Band 2 (PCS)	0.087	0.187	0.226	0.025	0.525

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 12	0.107	0.223	0.226	0.025	0.581
	LTE Band 66 (AWS)	0.110	0.223	0.226	0.025	**0.584**

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 66 (AWS)	0.110	0.046	0.226	0.025	**0.407**
	LTE Band 2 (PCS)	0.087	0.046	0.226	0.025	0.384

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 66 (AWS) Ant 3	0.135	0.107	0.226	0.025	0.493
	LTE Band 2 (PCS) Ant 3	0.188	0.107	0.226	0.025	**0.546**

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Table 12-3
Simultaneous Transmission Scenario with 2.4 GHz Ant 1 and 5 GHz Ant 2 (Held to Ear)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.106	0.235	0.265	0.606
	CDMA/EVDO BC0 (§22H)	0.108	0.235	0.265	0.608
	PCS CDMA/EVDO	0.106	0.235	0.265	0.606
	GSM/GPRS 850	0.157	0.235	0.265	0.657
	GSM/GPRS 1900	0.054	0.235	0.265	0.554
	UMTS 850	0.108	0.235	0.265	0.608
	UMTS 1750	0.123	0.235	0.265	0.623
	UMTS 1900	0.105	0.235	0.265	0.605
	LTE Band 71	0.078	0.235	0.265	0.578
	LTE Band 12	0.107	0.235	0.265	0.607
	LTE Band 13	0.096	0.235	0.265	0.596
	LTE Band 26 (Cell)	0.121	0.235	0.265	0.621
	LTE Band 66 (AWS)	0.110	0.235	0.265	0.610
	LTE Band 25 (PCS)	0.087	0.235	0.265	0.587
	LTE Band 41	0.097	0.235	0.265	0.597
	NR Band n71	0.091	0.235	0.265	0.591
	NR Band n66 Ant 2	0.117	0.235	0.265	0.617
	NR Band n66 Ant 3	0.187	0.235	0.265	0.687
	NR Band n25 Ant 2	0.104	0.235	0.265	0.604
	NR Band n25 Ant 3	0.223	0.235	0.265	**0.723**
	NR Band n41	0.046	0.235	0.265	0.546

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 66 (AWS)	0.110	0.091	0.235	0.265	**0.701**
	LTE Band 2 (PCS)	0.087	0.091	0.235	0.265	0.678

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Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 12	0.107	0.187	0.235	0.265	**0.794**
	LTE Band 2 (PCS)	0.087	0.187	0.235	0.265	0.774

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 12	0.107	0.223	0.235	0.265	0.830
	LTE Band 66 (AWS)	0.110	0.223	0.235	0.265	**0.833**

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 66 (AWS)	0.110	0.046	0.235	0.265	**0.656**
	LTE Band 2 (PCS)	0.087	0.046	0.235	0.265	0.633

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Head SAR	LTE Band 66 (AWS) Ant 3	0.135	0.107	0.235	0.265	0.742
	LTE Band 2 (PCS) Ant 3	0.188	0.107	0.235	0.265	**0.795**

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Table 12-4
Simultaneous Transmission Scenario with 5 GHz WLAN (Held to Ear)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Head SAR	CDMA/EVDO BC10 (§90S)	0.106	0.195	0.265	0.301	0.371	0.566
	CDMA/EVDO BC0 (§22H)	0.108	0.195	0.265	0.303	0.373	0.568
	PCS CDMA/EVDO	0.106	0.195	0.265	0.301	0.371	0.566
	GSM/GPRS 850	0.157	0.195	0.265	0.352	0.422	0.617
	GSM/GPRS 1900	0.054	0.195	0.265	0.249	0.319	0.514
	UMTS 850	0.108	0.195	0.265	0.303	0.373	0.568
	UMTS 1750	0.123	0.195	0.265	0.318	0.388	0.583
	UMTS 1900	0.105	0.195	0.265	0.300	0.370	0.565
	LTE Band 71	0.078	0.195	0.265	0.273	0.343	0.538
	LTE Band 12	0.107	0.195	0.265	0.302	0.372	0.567
	LTE Band 13	0.096	0.195	0.265	0.291	0.361	0.556
	LTE Band 26 (Cell)	0.121	0.195	0.265	0.316	0.386	0.581
	LTE Band 66 (AWS)	0.110	0.195	0.265	0.305	0.375	0.570
	LTE Band 25 (PCS)	0.087	0.195	0.265	0.282	0.352	0.547
	LTE Band 41	0.097	0.195	0.265	0.292	0.362	0.557
	NR Band n71	0.091	0.195	0.265	0.286	0.356	0.551
	NR Band n66 Ant 2	0.117	0.195	0.265	0.312	0.382	0.577
	NR Band n66 Ant 3	0.187	0.195	0.265	0.382	0.452	0.647
	NR Band n25 Ant 2	0.104	0.195	0.265	0.299	0.369	0.564
	NR Band n25 Ant 3	0.223	0.195	0.265	0.418	0.488	**0.683**
	NR Band n41	0.046	0.195	0.265	0.241	0.311	0.506

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Table 12-5
Simultaneous Transmission Scenario with Bluetooth (Held to Ear)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Head SAR	CDMA/EVDO BC10 (§90S)	0.106	0.025	0.131
	CDMA/EVDO BC0 (§22H)	0.108	0.025	0.133
	PCS CDMA/EVDO	0.106	0.025	0.131
	GSM/GPRS 850	0.157	0.025	0.182
	GSM/GPRS 1900	0.054	0.025	0.079
	UMTS 850	0.108	0.025	0.133
	UMTS 1750	0.123	0.025	0.148
	UMTS 1900	0.105	0.025	0.130
	LTE Band 71	0.078	0.025	0.103
	LTE Band 12	0.107	0.025	0.132
	LTE Band 13	0.096	0.025	0.121
	LTE Band 26 (Cell)	0.121	0.025	0.146
	LTE Band 66 (AWS)	0.110	0.025	0.135
	LTE Band 25 (PCS)	0.087	0.025	0.112
	LTE Band 41	0.097	0.025	0.122
	NR Band n71	0.091	0.025	0.116
	NR Band n66 Ant 2	0.117	0.025	0.142
	NR Band n66 Ant 3	0.187	0.025	0.212
	NR Band n25 Ant 2	0.104	0.025	0.129
	NR Band n25 Ant 3	0.223	0.025	**0.248**
	NR Band n41	0.046	0.025	0.071

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Table 12-6
Simultaneous Transmission Scenario with 5 GHz WLAN and Bluetooth (Held to Ear)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+4	1+3+4	1+2+3+4
Head SAR	CDMA/EVDO BC10 (§90S)	0.106	0.195	0.265	0.025	0.326	0.396	0.591
	CDMA/EVDO BC0 (§22H)	0.108	0.195	0.265	0.025	0.328	0.398	0.593
	PCS CDMA/EVDO	0.106	0.195	0.265	0.025	0.326	0.396	0.591
	GSM/GPRS 850	0.157	0.195	0.265	0.025	0.377	0.447	0.642
	GSM/GPRS 1900	0.054	0.195	0.265	0.025	0.274	0.344	0.539
	UMTS 850	0.108	0.195	0.265	0.025	0.328	0.398	0.593
	UMTS 1750	0.123	0.195	0.265	0.025	0.343	0.413	0.608
	UMTS 1900	0.105	0.195	0.265	0.025	0.325	0.395	0.590
	LTE Band 71	0.078	0.195	0.265	0.025	0.298	0.368	0.563
	LTE Band 12	0.107	0.195	0.265	0.025	0.327	0.397	0.592
	LTE Band 13	0.096	0.195	0.265	0.025	0.316	0.386	0.581
	LTE Band 26 (Cell)	0.121	0.195	0.265	0.025	0.341	0.411	0.606
	LTE Band 66 (AWS)	0.110	0.195	0.265	0.025	0.330	0.400	0.595
	LTE Band 25 (PCS)	0.087	0.195	0.265	0.025	0.307	0.377	0.572
	LTE Band 41	0.097	0.195	0.265	0.025	0.317	0.387	0.582
	NR Band n71	0.091	0.195	0.265	0.025	0.311	0.381	0.576
	NR Band n66 Ant 2	0.117	0.195	0.265	0.025	0.337	0.407	0.602
	NR Band n66 Ant 3	0.187	0.195	0.265	0.025	0.407	0.477	0.672
	NR Band n25 Ant 2	0.104	0.195	0.265	0.025	0.324	0.394	0.589
	NR Band n25 Ant 3	0.223	0.195	0.265	0.025	0.443	0.513	**0.708**
	NR Band n41	0.046	0.195	0.265	0.025	0.266	0.336	0.531

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)						
		1	2	3	4	5	1+2+3	1+2+4	1+2+5	1+2+3+4	1+2+3+5	1+2+4+5	1+2+3+4+5
Head SAR	LTE Band 66 (AWS)	0.110	0.091	0.195	0.265	0.025	0.396	0.466	0.226	0.661	0.421	0.491	**0.686**
	LTE Band 2 (PCS)	0.087	0.091	0.195	0.265	0.025	0.373	0.443	0.203	0.638	0.398	0.468	0.663

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)						
		1	2	3	4	5	1+2+3	1+2+4	1+2+5	1+2+3+4	1+2+3+5	1+2+4+5	1+2+3+4+5
Head SAR	LTE Band 12	0.107	0.187	0.195	0.265	0.025	0.489	0.559	0.319	0.754	0.514	0.584	**0.779**
	LTE Band 2 (PCS)	0.087	0.187	0.195	0.265	0.025	0.469	0.539	0.299	0.734	0.494	0.564	0.759

Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)						
		1	2	3	4	5	1+2+3	1+2+4	1+2+5	1+2+3+4	1+2+3+5	1+2+4+5	1+2+3+4+5
Head SAR	LTE Band 12	0.107	0.223	0.195	0.265	0.025	0.525	0.595	0.355	0.790	0.550	0.620	0.815
	LTE Band 66 (AWS)	0.110	0.223	0.195	0.265	0.025	0.528	0.598	0.358	0.793	0.553	0.623	**0.818**

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Configuration	Mode	Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)						
		1	2	3	4	5	1+2+3	1+2+4	1+2+5	1+2+3+4	1+2+3+5	1+2+4+5	1+2+3+4+5
Head SAR	LTE Band 66 (AWS)	0.110	0.046	0.195	0.265	0.025	0.351	0.421	0.181	0.616	0.376	0.446	**0.641**
	LTE Band 2 (PCS)	0.087	0.046	0.195	0.265	0.025	0.328	0.398	0.158	0.593	0.353	0.423	0.618
Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)						
		1	2	3	4	5	1+2+3	1+2+4	1+2+5	1+2+3+4	1+2+3+5	1+2+4+5	1+2+3+4+5
Head SAR	LTE Band 66 (AWS) Ant 3	0.135	0.107	0.195	0.265	0.025	0.437	0.507	0.267	0.702	0.462	0.532	0.727
	LTE Band 2 (PCS) Ant 3	0.188	0.107	0.195	0.265	0.025	0.490	0.560	0.320	0.755	0.515	0.585	**0.780**

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12.4 Body-Worn Simultaneous Transmission Analysis

Table 12-7
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Body-Worn at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.324	0.249	0.232	0.573	0.556	0.805
	CDMA BC0 (§22H)	0.363	0.249	0.232	0.612	0.595	0.844
	PCS CDMA	0.673	0.249	0.232	0.922	0.905	1.154
	GSM/GPRS 850	0.504	0.249	0.232	0.753	0.736	0.985
	GSM/GPRS 1900	0.310	0.249	0.232	0.559	0.542	0.791
	UMTS 850	0.375	0.249	0.232	0.624	0.607	0.856
	UMTS 1750	0.807	0.249	0.232	1.056	1.039	1.288
	UMTS 1900	0.587	0.249	0.232	0.836	0.819	1.068
	LTE Band 71	0.286	0.249	0.232	0.535	0.518	0.767
	LTE Band 12	0.345	0.249	0.232	0.594	0.577	0.826
	LTE Band 13	0.324	0.249	0.232	0.573	0.556	0.805
	LTE Band 26 (Cell)	0.514	0.249	0.232	0.763	0.746	0.995
	LTE Band 66 (AWS)	0.960	0.249	0.232	1.209	1.192	**1.441**
	LTE Band 25 (PCS)	0.818	0.249	0.232	1.067	1.050	1.299
	LTE Band 41	0.548	0.249	0.232	0.797	0.780	1.029
	NR Band n71	0.244	0.249	0.232	0.493	0.476	0.725
	NR Band n66 Ant 2	0.946	0.249	0.232	1.195	1.178	1.427
	NR Band n66 Ant 3	0.466	0.249	0.232	0.715	0.698	0.947
	NR Band n25 Ant 2	0.610	0.249	0.232	0.859	0.842	1.091
	NR Band n25 Ant 3	0.540	0.249	0.232	0.789	0.772	1.021
	NR Band n41	0.251	0.249	0.232	0.500	0.483	0.732

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			SPLSR					
		1	2	3	4	1+2+3	1+2+4	1+2+3+4	1+2	1+3	1+4	2+3	2+4	3+4
Body-Worn	LTE Band 12	0.345	0.540	0.075	0.061	0.960	0.946	1.021	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 66 (AWS)	0.960	0.540	0.075	0.061	**1.575**	1.561	See Note 1	0.03	0.01	0.01	0.00	0.00	0.00

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.244	0.075	0.061	1.279	1.265	**1.340**
	LTE Band 2 (PCS)	0.818	0.244	0.075	0.061	1.137	1.123	1.198

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Body-Worn	LTE Band 12	0.345	0.466	0.075	0.061	0.886	0.872	0.947
	LTE Band 2 (PCS)	0.818	0.466	0.075	0.061	1.359	1.345	**1.420**

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Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.251	0.075	0.061	1.286	1.272	**1.347**
	LTE Band 2 (PCS)	0.818	0.251	0.075	0.061	1.144	1.130	1.205

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.249	0.232	0.908	0.891	**1.140**
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.249	0.232	0.841	0.824	1.073

Notes:
1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.

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Table 12-8
Simultaneous Transmission Scenario with 2.4 GHz WLAN and Bluetooth (Body-Worn at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.324	0.232	0.027	0.583
	CDMA BC0 (§22H)	0.363	0.232	0.027	0.622
	PCS CDMA	0.673	0.232	0.027	0.932
	GSM/GPRS 850	0.504	0.232	0.027	0.763
	GSM/GPRS 1900	0.310	0.232	0.027	0.569
	UMTS 850	0.375	0.232	0.027	0.634
	UMTS 1750	0.807	0.232	0.027	1.066
	UMTS 1900	0.587	0.232	0.027	0.846
	LTE Band 71	0.286	0.232	0.027	0.545
	LTE Band 12	0.345	0.232	0.027	0.604
	LTE Band 13	0.324	0.232	0.027	0.583
	LTE Band 26 (Cell)	0.514	0.232	0.027	0.773
	LTE Band 66 (AWS)	0.960	0.232	0.027	**1.219**
	LTE Band 25 (PCS)	0.818	0.232	0.027	1.077
	LTE Band 41	0.548	0.232	0.027	0.807
	NR Band n71	0.244	0.232	0.027	0.503
	NR Band n66 Ant 2	0.946	0.232	0.027	1.205
	NR Band n66 Ant 3	0.466	0.232	0.027	0.725
	NR Band n25 Ant 2	0.610	0.232	0.027	0.869
	NR Band n25 Ant 3	0.540	0.232	0.027	0.799
	NR Band n41	0.251	0.232	0.027	0.510

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 12	0.345	0.540	0.061	0.027	0.973
	LTE Band 66 (AWS)	0.960	0.540	0.061	0.027	**1.588**

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.244	0.061	0.027	**1.292**
	LTE Band 2 (PCS)	0.818	0.244	0.061	0.027	1.150

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Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 12	0.345	0.466	0.061	0.027	0.899
	LTE Band 2 (PCS)	0.818	0.466	0.061	0.027	**1.372**

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.251	0.061	0.027	**1.299**
	LTE Band 2 (PCS)	0.818	0.251	0.061	0.027	1.157

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.232	0.027	**0.918**
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.232	0.027	0.851

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Table 12-9
Simultaneous Transmission Scenario with 2.4 GHz Ant 1 and 5 GHz WLAN Ant 2 (Body-Worn at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.324	0.249	0.218	0.791
	CDMA BC0 (§22H)	0.363	0.249	0.218	0.830
	PCS CDMA	0.673	0.249	0.218	1.140
	GSM/GPRS 850	0.504	0.249	0.218	0.971
	GSM/GPRS 1900	0.310	0.249	0.218	0.777
	UMTS 850	0.375	0.249	0.218	0.842
	UMTS 1750	0.807	0.249	0.218	1.274
	UMTS 1900	0.587	0.249	0.218	1.054
	LTE Band 71	0.286	0.249	0.218	0.753
	LTE Band 12	0.345	0.249	0.218	0.812
	LTE Band 13	0.324	0.249	0.218	0.791
	LTE Band 26 (Cell)	0.514	0.249	0.218	0.981
	LTE Band 66 (AWS)	0.960	0.249	0.218	**1.427**
	LTE Band 25 (PCS)	0.818	0.249	0.218	1.285
	LTE Band 41	0.548	0.249	0.218	1.015
	NR Band n71	0.244	0.249	0.218	0.711
	NR Band n66 Ant 2	0.946	0.249	0.218	1.413
	NR Band n66 Ant 3	0.466	0.249	0.218	0.933
	NR Band n25 Ant 2	0.610	0.249	0.218	1.077
	NR Band n25 Ant 3	0.540	0.249	0.218	1.007
	NR Band n41	0.251	0.249	0.218	0.718

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	SPLSR					
		1	2	3	4	1+2+3+4	1+2	1+3	1+4	2+3	2+4	3+4
Body-Worn	LTE Band 12	0.345	0.540	0.075	0.080	**1.040**	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 66 (AWS)	0.960	0.540	0.075	0.080	See Note 1	0.03	0.01	0.01	0.00	0.00	0.00

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.244	0.075	0.080	**1.359**
	LTE Band 2 (PCS)	0.818	0.244	0.075	0.080	1.217

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Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 12	0.345	0.466	0.075	0.080	0.966
	LTE Band 2 (PCS)	0.818	0.466	0.075	0.080	**1.439**

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.251	0.075	0.080	**1.366**
	LTE Band 2 (PCS)	0.818	0.251	0.075	0.080	1.224

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.249	0.218	**1.126**
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.249	0.218	1.059

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Table 12-10
Simultaneous Transmission Scenario with 5 GHz WLAN (Body-Worn at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
Body-Worn	CDMA BC10 (§90S)	0.324	0.763	0.218	1.087	0.542	N/A
	CDMA BC0 (§22H)	0.363	0.763	0.218	1.126	0.581	N/A
	PCS CDMA	0.673	0.763	0.218	1.436	0.891	N/A
	GSM/GPRS 850	0.504	0.763	0.218	1.267	0.722	N/A
	GSM/GPRS 1900	0.310	0.763	0.218	1.073	0.528	N/A
	UMTS 850	0.375	0.763	0.218	1.138	0.593	N/A
	UMTS 1750	0.807	0.763	0.218	1.570	1.025	N/A
	UMTS 1900	0.587	0.763	0.218	1.350	0.805	N/A
	LTE Band 71	0.286	0.763	0.218	1.049	0.504	N/A
	LTE Band 12	0.345	0.763	0.218	1.108	0.563	N/A
	LTE Band 13	0.324	0.763	0.218	1.087	0.542	N/A
	LTE Band 26 (Cell)	0.514	0.763	0.218	1.277	0.732	N/A
	LTE Band 66 (AWS)	0.960	0.763	0.218	See Note 1	1.178	0.02
	LTE Band 25 (PCS)	0.818	0.763	0.218	**1.581**	1.036	N/A
	LTE Band 41	0.548	0.763	0.218	1.311	0.766	N/A
	NR Band n71	0.244	0.763	0.218	1.007	0.462	N/A
	NR Band n66 Ant 2	0.946	0.763	0.218	See Note 1	1.164	0.01
	NR Band n66 Ant 3	0.466	0.763	0.218	1.229	0.684	N/A
	NR Band n25 Ant 2	0.610	0.763	0.218	1.373	0.828	N/A
	NR Band n25 Ant 3	0.540	0.763	0.218	1.303	0.758	N/A
	NR Band n41	0.251	0.763	0.218	1.014	0.469	N/A

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Body-Worn	CDMA BC10 (§90S)	0.324	0.774	1.098	N/A
	CDMA BC0 (§22H)	0.363	0.774	1.137	N/A
	PCS CDMA	0.673	0.774	1.447	N/A
	GSM/GPRS 850	0.504	0.774	1.278	N/A
	GSM/GPRS 1900	0.310	0.774	1.084	N/A
	UMTS 850	0.375	0.774	1.149	N/A
	UMTS 1750	0.807	0.774	1.581	N/A
	UMTS 1900	0.587	0.774	1.361	N/A
	LTE Band 71	0.286	0.774	1.060	N/A
	LTE Band 12	0.345	0.774	1.119	N/A
	LTE Band 13	0.324	0.774	1.098	N/A
	LTE Band 26 (Cell)	0.514	0.774	1.288	N/A
	LTE Band 66 (AWS)	0.960	0.774	See Note 1	0.02
	LTE Band 25 (PCS)	0.818	0.774	**1.592**	N/A
	LTE Band 41	0.548	0.774	1.322	N/A
	NR Band n71	0.244	0.774	1.018	N/A
	NR Band n66 Ant 2	0.946	0.774	See Note 1	0.01
	NR Band n66 Ant 3	0.466	0.774	1.240	N/A
	NR Band n25 Ant 2	0.610	0.774	1.384	N/A
	NR Band n25 Ant 3	0.540	0.774	1.314	N/A
	NR Band n41	0.251	0.774	1.025	N/A

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Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			SPLSR					
		1	2	3	4	1+2+3	1+2+4	1+2+3+4	1+2	1+3	1+4	2+3	2+4	3+4
Body-Worn	LTE Band 12	0.345	0.466	0.389	0.080	1.227	0.891	1.280	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 2 (PCS)	0.818	0.466	0.389	0.080	See Note 1	**1.364**	See Note 1	0.02	0.01	0.01	0.01	0.00	0.04

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			SPLSR					
		1	2	3	4	1+2+3	1+2+4	1+2+3+4	1+2	1+3	1+4	2+3	2+4	3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.244	0.389	0.080	See Note 1	1.284	See Note 1	0.03	0.01	0.01	0.00	0.00	0.04
	LTE Band 2 (PCS)	0.818	0.244	0.389	0.080	1.478	1.142	**1.531**	N/A	N/A	N/A	N/A	N/A	N/A

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			SPLSR					
		1	2	3	4	1+2+3	1+2+4	1+2+3+4	1+2	1+3	2+3	1+4	2+4	3+4
Body-Worn	LTE Band 12	0.345	0.540	0.389	0.080	1.301	0.965	1.354	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 66 (AWS)	0.960	0.540	0.389	0.080	See Note 1	**1.580**	See Note 1	0.03	0.01	0.01	0.01	0.00	0.04

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			SPLSR					
		1	2	3	4	1+2+3	1+2+4	1+2+3+4	1+2	1+3	1+4	2+3	2+4	3+4
Body-Worn	LTE Band 66 (AWS)	0.960	0.251	0.389	0.080	See Note 1	1.291	See Note 1	0.01	0.01	0.01	0.01	0.00	0.04
	LTE Band 2 (PCS)	0.818	0.251	0.389	0.080	1.485	1.149	**1.538**	N/A	N/A	N/A	N/A	N/A	N/A

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	4	1+2+3	1+2+4
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.763	0.218	**1.449**	0.877
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.763	0.218	1.382	0.810

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.774	**1.433**
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.774	1.393

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Table 12-11
Simultaneous Transmission Scenario with Bluetooth (Body-Worn at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Body-Worn	CDMA BC10 (§90S)	0.324	0.027	0.351
	CDMA BC0 (§22H)	0.363	0.027	0.390
	PCS CDMA	0.673	0.027	0.700
	GSM/GPRS 850	0.504	0.027	0.531
	GSM/GPRS 1900	0.310	0.027	0.337
	UMTS 850	0.375	0.027	0.402
	UMTS 1750	0.807	0.027	0.834
	UMTS 1900	0.587	0.027	0.614
	LTE Band 71	0.286	0.027	0.313
	LTE Band 12	0.345	0.027	0.372
	LTE Band 13	0.324	0.027	0.351
	LTE Band 26 (Cell)	0.514	0.027	0.541
	LTE Band 66 (AWS)	0.960	0.027	**0.987**
	LTE Band 25 (PCS)	0.818	0.027	0.845
	LTE Band 41	0.548	0.027	0.575
	NR Band n71	0.244	0.027	0.271
	NR Band n66 Ant 2	0.946	0.027	0.973
	NR Band n66 Ant 3	0.466	0.027	0.493
	NR Band n25 Ant 2	0.610	0.027	0.637
	NR Band n25 Ant 3	0.540	0.027	0.567
	NR Band n41	0.251	0.027	0.278

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	LTE Band 66 (AWS)	0.960	0.244	0.027	**1.231**
	LTE Band 2 (PCS)	0.818	0.244	0.027	1.089

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	LTE Band 12	0.345	0.540	0.027	0.912
	LTE Band 66 (AWS)	0.960	0.540	0.027	**1.527**

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	LTE Band 12	0.345	0.466	0.027	0.838
	LTE Band 2 (PCS)	0.818	0.466	0.027	**1.311**

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	LTE Band 66 (AWS)	0.960	0.251	0.027	**1.238**
	LTE Band 2 (PCS)	0.818	0.251	0.027	1.096

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.027	**0.686**
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.027	0.619

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Table 12-12
Simultaneous Transmission Scenario with 5 GHz WLAN and Bluetooth (Body-Worn at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR		
		1	2	3	4	1+2+3	1+2+4	1+2	1+3	2+3
Body-Worn	CDMA BC10 (§90S)	0.324	0.027	0.763	0.218	1.114	0.569	N/A	N/A	N/A
	CDMA BC0 (§22H)	0.363	0.027	0.763	0.218	1.153	0.608	N/A	N/A	N/A
	PCS CDMA	0.673	0.027	0.763	0.218	1.463	0.918	N/A	N/A	N/A
	GSM/GPRS 850	0.504	0.027	0.763	0.218	1.294	0.749	N/A	N/A	N/A
	GSM/GPRS 1900	0.310	0.027	0.763	0.218	1.100	0.555	N/A	N/A	N/A
	UMTS 850	0.375	0.027	0.763	0.218	1.165	0.620	N/A	N/A	N/A
	UMTS 1750	0.807	0.027	0.763	0.218	See Note 1	1.052	0.00	0.01	0.04
	UMTS 1900	0.587	0.027	0.763	0.218	1.377	0.832	N/A	N/A	N/A
	LTE Band 71	0.286	0.027	0.763	0.218	1.076	0.531	N/A	N/A	N/A
	LTE Band 12	0.345	0.027	0.763	0.218	1.135	0.590	N/A	N/A	N/A
	LTE Band 13	0.324	0.027	0.763	0.218	1.114	0.569	N/A	N/A	N/A
	LTE Band 26 (Cell)	0.514	0.027	0.763	0.218	1.304	0.759	N/A	N/A	N/A
	LTE Band 66 (AWS)	0.960	0.027	0.763	0.218	See Note 1	1.205	0.01	0.02	0.04
	LTE Band 25 (PCS)	0.818	0.027	0.763	0.218	See Note 1	1.063	0.00	0.01	0.04
	LTE Band 41	0.548	0.027	0.763	0.218	1.338	0.793	N/A	N/A	N/A
	NR Band n71	0.244	0.027	0.763	0.218	1.034	0.489	N/A	N/A	N/A
	NR Band n66 Ant 2	0.946	0.027	0.763	0.218	See Note 1	1.191	0.01	0.01	0.04
	NR Band n66 Ant 3	0.466	0.027	0.763	0.218	1.256	0.711	N/A	N/A	N/A
	NR Band n25 Ant 2	0.610	0.027	0.763	0.218	1.400	0.855	N/A	N/A	N/A
	NR Band n25 Ant 3	0.540	0.027	0.763	0.218	1.330	**1.548**	N/A	N/A	N/A
	NR Band n41	0.251	0.027	0.763	0.218	1.041	1.259	N/A	N/A	N/A

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Body-Worn	CDMA BC10 (§90S)	0.324	0.027	0.774	1.125
	CDMA BC0 (§22H)	0.363	0.027	0.774	1.164
	PCS CDMA	0.673	0.027	0.774	**1.474**
	GSM/GPRS 850	0.504	0.027	0.774	1.305
	GSM/GPRS 1900	0.310	0.027	0.774	1.111
	UMTS 850	0.375	0.027	0.774	1.176
	UMTS 1750	0.807	0.027	0.774	See Note 2
	UMTS 1900	0.587	0.027	0.774	1.388
	LTE Band 71	0.286	0.027	0.774	1.087
	LTE Band 12	0.345	0.027	0.774	1.146
	LTE Band 13	0.324	0.027	0.774	1.125
	LTE Band 26 (Cell)	0.514	0.027	0.774	1.315
	LTE Band 66 (AWS)	0.960	0.027	0.774	See Note 2
	LTE Band 25 (PCS)	0.818	0.027	0.774	See Note 2
	LTE Band 41	0.548	0.027	0.774	1.349
	NR Band n71	0.244	0.027	0.774	1.045
	NR Band n66 Ant 2	0.946	0.027	0.774	See Note 2
	NR Band n66 Ant 3	0.466	0.027	0.774	1.267
	NR Band n25 Ant 2	0.610	0.027	0.774	1.411
	NR Band n25 Ant 3	0.540	0.027	0.774	1.341
	NR Band n41	0.251	0.027	0.774	1.052

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Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n25 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)			SPLSR									
		1	2	3	4	5	1+2+3+5	1+2+4+5	1+2+3+4+5	1+2	1+3	1+4	1+5	2+3	2+4	2+5	3+4	3+5	4+5
Body-Worn	LTE Band 12	0.345	0.540	0.389	0.080	0.027	1.301	0.992	**1.354**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 66 (AWS)	0.960	0.540	0.389	0.080	0.027	See Note 1	See Note 1	See Note 1	0.03	0.01	0.01	0.01	0.01	0.00	0.00	0.04	0.02	0.00

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)			SPLSR									
		1	2	3	4	5	1+2+3+5	1+2+4+5	1+2+3+4+5	1+2	1+3	1+4	1+5	2+3	2+4	2+5	3+4	3+5	4+5
Body-Worn	LTE Band 66 (AWS)	0.960	0.244	0.389	0.080	0.027	See Note 1	1.311	See Note 1	0.03	0.01	0.01	0.01	0.00	0.00	0.00	0.04	0.02	0.00
	LTE Band 2 (PCS)	0.818	0.244	0.389	0.080	0.027	1.478	1.169	**1.558**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n66 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)			SPLSR									
		1	2	3	4	5	1+2+3+5	1+2+4+5	1+2+3+4+5	1+2	1+3	1+4	1+5	2+3	2+4	2+5	3+4	3+5	4+5
Body-Worn	LTE Band 12	0.345	0.466	0.389	0.080	0.027	1.227	0.918	1.307	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	LTE Band 2 (PCS)	0.818	0.466	0.389	0.080	0.027	See Note 1	**1.391**	See Note 1	0.02	0.01	0.01	0.00	0.01	0.00	0.00	0.04	0.02	0.00

Configuration	Mode	LTE Anchor Band SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)			SPLSR									
		1	2	3	4	5	1+2+3+5	1+2+4+5	1+2+3+4+5	1+2	1+3	1+4	1+5	2+3	2+4	2+5	3+4	3+5	4+5
Body-Worn	LTE Band 66 (AWS)	0.960	0.251	0.389	0.080	0.027	See Note 1	1.318	See Note 1	0.01	0.01	0.01	0.01	0.01	0.00	0.00	0.04	0.02	0.00
	LTE Band 2 (PCS)	0.818	0.251	0.389	0.080	0.027	1.485	1.176	**1.565**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	4	5	1+2+3+5	1+2+4+5
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.763	0.218	0.027	**1.449**	0.904
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.763	0.218	0.027	1.382	0.837

Configuration	Mode	4G Ant 3 SAR (W/kg)	LTE Band 12 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Body-Worn	LTE Band 66 (AWS) Ant 3	0.314	0.345	0.774	0.027	**1.460**
	LTE Band 2 (PCS) Ant 3	0.247	0.345	0.774	0.027	1.393

Notes:
1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.
2. Please see section 12.8 for detailed simultaneous transmission analysis.

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12.5 Hotspot SAR Simultaneous Transmission Analysis

Table 12-13
Simultaneous Transmission Scenario with 2.4 GHz WLAN (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	EVDO BC10 (§90S)	0.363	0.680	0.240	1.043	0.603	1.283
	EVDO BC0 (§22H)	0.404	0.680	0.240	1.084	0.644	1.324
	PCS EVDO	0.841	0.680	0.240	1.521	1.081	See Table Below
	GPRS 850	0.515	0.680	0.240	1.195	0.755	1.435
	GPRS 1900	0.509	0.680	0.240	1.189	0.749	1.429
	UMTS 850	0.378	0.680	0.240	1.058	0.618	1.298
	UMTS 1750	0.872	0.680	0.240	1.552	1.112	See Table Below
	UMTS 1900	0.687	0.680	0.240	1.367	0.927	See Table Below
	LTE Band 71	0.286	0.680	0.240	0.966	0.526	1.206
	LTE Band 12	0.345	0.680	0.240	1.025	0.585	1.265
	LTE Band 13	0.324	0.680	0.240	1.004	0.564	1.244
	LTE Band 26 (Cell)	0.514	0.680	0.240	1.194	0.754	1.434
	LTE Band 66 (AWS)	0.855	0.680	0.240	1.535	1.095	See Table Below
	LTE Band 25 (PCS)	0.908	0.680	0.240	**1.588**	1.148	See Table Below
	LTE Band 41	0.881	0.680	0.240	1.561	1.121	See Table Below
	NR Band n71	0.244	0.680	0.240	0.924	0.484	1.164
	NR Band n66 Ant 2	1.065	0.680	0.240	See Table Below	1.305	See Table Below
	NR Band n66 Ant 3	0.657	0.680	0.240	1.337	0.897	1.577
	NR Band n25 Ant 2	0.722	0.680	0.240	1.402	0.962	See Table Below
	NR Band n25 Ant 3	0.883	0.680	0.240	1.563	1.123	See Table Below
	NR Band n41	0.251	0.680	0.240	0.931	0.491	1.171

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.500	0.249	0.232	0.749	0.732	0.981
	Front	0.633	0.266	0.149	0.899	0.782	**1.048**
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.841	-	-	0.841	0.841	0.841
	Left	0.096	0.680	0.240*	0.776	0.336	1.016

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.611	0.249	0.232	0.860	0.843	1.092
	Front	0.872	0.266	0.149	1.138	1.021	**1.287**
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.827	-	-	0.827	0.827	0.827
	Left	0.170	0.680	0.240*	0.850	0.410	1.090

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.589	0.249	0.232	0.838	0.821	1.070
	Front	0.672	0.266	0.149	0.938	0.821	**1.087**
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.687	-	-	0.687	0.687	0.687
	Left	0.089	0.680	0.240*	0.769	0.329	1.009

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.759	0.249	0.232	1.008	0.991	1.240
	Front	0.855	0.266	0.149	1.121	1.004	**1.270**
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.790	-	-	0.790	0.790	0.790
	Left	0.203	0.680	0.240*	0.883	0.443	1.123

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.454	0.249	0.232	0.703	0.686	0.935
	Front	0.689	0.266	0.149	0.955	0.838	**1.104**
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.908	-	-	0.908	0.908	0.908
	Left	0.132	0.680	0.240*	0.812	0.372	1.052

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.418	0.249	0.232	0.667	0.650	0.899
	Front	0.263	0.266	0.149	0.529	0.412	0.678
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.881	-	-	0.881	0.881	0.881
	Left	0.082	0.680	0.240*	0.762	0.322	**1.002**

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Simult Tx	Configuration	NR Band n66 Ant 2 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.902	0.249	0.232	1.151	1.134	1.383
	Front	1.065	0.266	0.149	1.331	1.214	**1.480**
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.787	-	-	0.787	0.787	0.787
	Left	0.149	0.680	0.240*	0.829	0.389	1.069

Simult Tx	Configuration	NR Band n25 Ant 2 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.569	0.249	0.232	0.818	0.801	1.050
	Front	0.722	0.266	0.149	0.988	0.871	**1.137**
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.617	-	-	0.617	0.617	0.617
	Left	0.069	0.680	0.240*	0.749	0.309	0.989

Simult Tx	Configuration	NR Band n25 Ant 3 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.353	0.249	0.232	0.602	0.585	0.834
	Front	0.325	0.266	0.149	0.591	0.474	0.740
	Top	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.206	-	-	0.206	0.206	0.206
	Right	0.883	-	-	0.883	0.883	0.883
	Left	-	0.680	0.240*	0.680	0.240	**0.920**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.759	0.244	0.075	0.061	1.078	1.064	1.139
	Front	0.855	0.201	0.180*	0.061*	1.236	1.117	**1.297**
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.790	0.097	-	-	0.887	0.887	0.887
	Right	-	0.228	-	-	0.228	0.228	0.228
	Left	0.203	-	0.180	0.061*	0.383	0.264	0.444

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.454	0.244	0.075	0.061	0.773	0.759	0.834
	Front	0.689	0.201	0.180*	0.061*	1.070	0.951	**1.131**
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.908	0.097	-	-	1.005	1.005	1.005
	Right	-	0.228	-	-	0.228	0.228	0.228
	Left	0.132	-	0.180	0.061*	0.312	0.193	0.373

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.454	0.376	0.075	0.061	0.905	0.891	0.966
	Front	0.689	0.325	0.180*	0.061*	1.194	1.075	**1.255**
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.908	0.124	-	-	1.032	1.032	1.032
	Right	-	0.657	-	-	0.657	0.657	0.657
	Left	0.132	-	0.180	0.061*	0.312	0.193	0.373

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.345	0.376	0.075	0.061	0.796	0.782	**0.857**
	Front	0.276	0.325	0.180*	0.061*	0.781	0.662	0.842
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.138	0.124	-	-	0.262	0.262	0.262
	Right	0.198	0.657	-	-	0.855	0.855	0.855
	Left	-	-	0.180	0.061*	0.180	0.061	0.241

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.759	0.353	0.075	0.061	1.187	1.173	1.248
	Front	0.855	0.325	0.180*	0.061*	1.360	1.241	**1.421**
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.790	0.206	-	-	0.996	0.996	0.996
	Right	-	0.883	-	-	0.883	0.883	0.883
	Left	0.203	-	0.180	0.061*	0.383	0.264	0.444

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n25 (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.345	0.353	0.075	0.061	0.773	0.759	0.834
	Front	0.276	0.325	0.180*	0.061*	0.781	0.662	0.842
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.138	0.206	-	-	0.344	0.344	0.344
	Right	0.198	0.883	-	-	**1.081**	**1.081**	**1.081**
	Left	-	-	0.180	0.061*	0.180	0.061	0.241

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.759	0.251	0.075	0.061	1.085	1.071	**1.146**
	Front	0.855	0.017	0.180*	0.061*	1.052	0.933	1.113
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.790	-	-	-	0.790	0.790	0.790
	Right	-	0.101	-	-	0.101	0.101	0.101
	Left	0.203	-	0.180	0.061*	0.383	0.264	0.444

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.454	0.251	0.075	0.061	0.780	0.766	0.841
	Front	0.689	0.017	0.180*	0.061*	0.886	0.767	**0.947**
	Top	-	-	0.180*	0.061*	0.180	0.061	0.241
	Bottom	0.908	-	-	-	0.908	0.908	0.908
	Right	-	0.101	-	-	0.101	0.101	0.101
	Left	0.132	-	0.180	0.061*	0.312	0.193	0.373

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.345	0.310	0.249	0.232	0.904	0.887	**1.136**
	Front	0.276	0.248	0.266	0.149	0.790	0.673	0.939
	Top	-	-	0.276	0.240	0.276	0.240	0.516
	Bottom	0.138	0.119	-	-	0.257	0.257	0.257
	Right	0.198	0.677	-	-	0.875	0.875	0.875
	Left	-	-	0.680	0.240*	0.680	0.240	0.920

Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
	1	2	3	4	1+2+3	1+2+4	1+2+3+4
Back	0.345	0.319	0.249	0.232	0.913	0.896	**1.145**
Front	0.276	0.265	0.266	0.149	0.807	0.690	0.956
Top	-	-	0.276	0.240	0.276	0.240	0.516
Bottom	0.138	0.143	-	-	0.281	0.281	0.281
Right	0.198	0.760	-	-	0.958	0.958	0.958
Left	-	-	0.680	0.240*	0.680	0.240	0.920

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Table 12-14
Simultaneous Transmission Scenario with 2.4 GHz WLAN and Bluetooth (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	EVDO BC10 (§90S)	0.363	0.070	0.240	0.673
	EVDO BC0 (§22H)	0.404	0.070	0.240	0.714
	PCS EVDO	0.841	0.070	0.240	1.151
	GPRS 850	0.515	0.070	0.240	0.825
	GPRS 1900	0.509	0.070	0.240	0.819
	UMTS 850	0.378	0.070	0.240	0.688
	UMTS 1750	0.872	0.070	0.240	1.182
	UMTS 1900	0.687	0.070	0.240	0.997
	LTE Band 71	0.286	0.070	0.240	0.596
	LTE Band 12	0.345	0.070	0.240	0.655
	LTE Band 13	0.324	0.070	0.240	0.634
	LTE Band 26 (Cell)	0.514	0.070	0.240	0.824
	LTE Band 66 (AWS)	0.855	0.070	0.240	1.165
	LTE Band 25 (PCS)	0.908	0.070	0.240	1.218
	LTE Band 41	0.881	0.070	0.240	1.191
	NR Band n71	0.244	0.070	0.240	0.554
	NR Band n66 Ant 2	1.065	0.070	0.240	**1.375**
	NR Band n66 Ant 3	0.657	0.070	0.240	0.967
	NR Band n25 Ant 2	0.722	0.070	0.240	1.032
	NR Band n25 Ant 3	0.883	0.070	0.240	1.193
	NR Band n41	0.251	0.070	0.240	0.561

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.759	0.244	0.027	0.061	1.091	Hotspot SAR	Back	0.454	0.244	0.027	0.061	0.786
	Front	0.855	0.201	0.024	0.061*	**1.141**		Front	0.689	0.201	0.024	0.061*	0.975
	Top	-	-	0.028	0.061*	0.089		Top	-	-	0.028	0.061*	0.089
	Bottom	0.790	0.097	-	-	0.887		Bottom	0.908	0.097	-	-	**1.005**
	Right	-	0.228	-	-	0.228		Right	-	0.228	-	-	0.228
	Left	0.203	-	0.070	0.061*	0.334		Left	0.132	-	0.070	0.061*	0.263

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.454	0.376	0.027	0.061	0.918	Hotspot SAR	Back	0.345	0.376	0.027	0.061	0.809
	Front	0.689	0.325	0.024	0.061*	**1.099**		Front	0.276	0.325	0.024	0.061*	0.686
	Top	-	-	0.028	0.061*	0.089		Top	-	-	0.028	0.061*	0.089
	Bottom	0.908	0.124	-	-	1.032		Bottom	0.138	0.124	-	-	0.262
	Right	-	0.657	-	-	0.657		Right	0.198	0.657	-	-	**0.855**
	Left	0.132	-	0.070	0.061*	0.263		Left	-	-	0.070	0.061*	0.131

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Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n25 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.345	0.353	0.027	0.061	0.786	Hotspot SAR	Back	0.759	0.353	0.027	0.061	1.200
	Front	0.276	0.325	0.024	0.061*	0.686		Front	0.855	0.325	0.024	0.061*	**1.265**
	Top	-	-	0.028	0.061*	0.089		Top	-	-	0.028	0.061*	0.089
	Bottom	0.138	0.206	-	-	0.344		Bottom	0.790	0.206	-	-	0.996
	Right	0.198	0.883	-	-	**1.081**		Right	-	0.883	-	-	0.883
	Left	-	-	0.070	0.061*	0.131		Left	0.203	-	0.070	0.061*	0.334

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.454	0.251	0.027	0.061	0.793	Hotspot SAR	Back	0.759	0.251	0.027	0.061	**1.098**
	Front	0.689	0.017	0.024	0.061*	0.791		Front	0.855	0.017	0.024	0.061*	0.957
	Top	-	-	0.028	0.061*	0.089		Top	-	-	0.028	0.061*	0.089
	Bottom	0.908	-	-	-	**0.908**		Bottom	0.790	-	-	-	0.790
	Right	-	0.101	-	-	0.101		Right	-	0.101	-	-	0.101
	Left	0.132	-	0.070	0.061*	0.263		Left	0.203	-	0.070	0.061*	0.334

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	2.4 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.345	0.310	0.027	0.232	**0.914**	Hotspot SAR	Back	0.345	0.319	0.027	0.232	0.923
	Front	0.276	0.248	0.024	0.149	0.697		Front	0.276	0.265	0.024	0.149	0.714
	Top	-	-	0.028	0.240	0.268		Top	-	-	0.028	0.240	0.268
	Bottom	0.138	0.119	-	-	0.257		Bottom	0.138	0.143	-	-	0.281
	Right	0.198	0.677	-	-	0.875		Right	0.198	0.760	-	-	**0.958**
	Left	-	-	0.070	0.240*	0.310		Left	-	-	0.070	0.240*	0.310

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Table 12-15
Simultaneous Transmission Scenario with 2 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2 (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	EVDO BC10 (§90S)	0.363	0.680	0.218	1.261
	EVDO BC0 (§22H)	0.404	0.680	0.218	1.302
	PCS EVDO	0.841	0.680	0.218	See Table Below
	GPRS 850	0.515	0.680	0.218	1.413
	GPRS 1900	0.509	0.680	0.218	1.407
	UMTS 850	0.378	0.680	0.218	1.276
	UMTS 1750	0.872	0.680	0.218	See Table Below
	UMTS 1900	0.687	0.680	0.218	**1.585**
	LTE Band 71	0.286	0.680	0.218	1.184
	LTE Band 12	0.345	0.680	0.218	1.243
	LTE Band 13	0.324	0.680	0.218	1.222
	LTE Band 26 (Cell)	0.514	0.680	0.218	1.412
	LTE Band 66 (AWS)	0.855	0.680	0.218	See Table Below
	LTE Band 25 (PCS)	0.908	0.680	0.218	See Table Below
	LTE Band 41	0.881	0.680	0.218	See Table Below
	NR Band n71	0.244	0.680	0.218	1.142
	NR Band n66 Ant 2	1.065	0.680	0.218	See Table Below
	NR Band n66 Ant 3	0.657	0.680	0.218	1.555
	NR Band n25 Ant 2	0.722	0.680	0.218	See Table Below
	NR Band n25 Ant 3	0.883	0.680	0.218	See Table Below
	NR Band n41	0.251	0.680	0.218	1.149

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.500	0.249	0.218	0.967
	Front	0.633	0.266	0.096	**0.995**
	Top	-	0.276	0.182	0.458
	Bottom	0.841	-	-	0.841
	Left	0.096	0.680	0.218*	0.994

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.611	0.249	0.218	1.078
	Front	0.872	0.266	0.096	**1.234**
	Top	-	0.276	0.182	0.458
	Bottom	0.827	-	-	0.827
	Left	0.170	0.680	0.218*	1.068

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.759	0.249	0.218	**1.226**
	Front	0.855	0.266	0.096	1.217
	Top	-	0.276	0.182	0.458
	Bottom	0.790	-	-	0.790
	Left	0.203	0.680	0.218*	1.101

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.454	0.249	0.218	0.921
	Front	0.689	0.266	0.096	**1.051**
	Top	-	0.276	0.182	0.458
	Bottom	0.908	-	-	0.908
	Left	0.132	0.680	0.218*	1.030

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Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.418	0.249	0.218	0.885	Hotspot SAR	Back	0.902	0.249	0.218	1.369
	Front	0.263	0.266	0.096	0.625		Front	1.065	0.266	0.096	**1.427**
	Top	-	0.276	0.182	0.458		Top	-	0.276	0.182	0.458
	Bottom	0.881	-	-	0.881		Bottom	0.787	-	-	0.787
	Left	0.082	0.680	0.218*	**0.980**		Left	0.149	0.680	0.218*	1.047

Simult Tx	Configuration	NR Band n25 Ant 2 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	NR Band n25 Ant 3 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			2	2	3	1+2+3
Hotspot SAR	Back	0.569	0.249	0.218	1.036	Hotspot SAR	Back	0.353	0.249	0.218	0.820
	Front	0.722	0.266	0.096	**1.084**		Front	0.325	0.266	0.096	0.687
	Top	-	0.276	0.182	0.458		Top	-	0.276	0.182	0.458
	Bottom	0.617	-	-	0.617		Bottom	0.206	-	-	0.206
	Left	0.069	0.680	0.218*	0.967		Right	0.883	-	-	0.883
							Left	-	0.680	0.218*	**0.898**

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.759	0.244	0.075	0.080	1.158	Hotspot SAR	Back	0.454	0.244	0.075	0.080	0.853
	Front	0.855	0.201	0.180*	0.043	**1.279**		Front	0.689	0.201	0.180*	0.043	**1.113**
	Top	-	-	0.180*	0.089	0.269		Top	-	-	0.180*	0.089	0.269
	Bottom	0.790	0.097	-	-	0.887		Bottom	0.908	0.097	-	-	1.005
	Right	-	0.228	-	-	0.228		Right	-	0.228	-	-	0.228
	Left	0.203	-	0.180	0.089*	0.472		Left	0.132	-	0.180	0.089*	0.401

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.454	0.376	0.075	0.080	0.985	Hotspot SAR	Back	0.345	0.376	0.075	0.080	**0.876**
	Front	0.689	0.325	0.180*	0.043	**1.237**		Front	0.276	0.325	0.180*	0.043	0.824
	Top	-	-	0.180*	0.089	0.269		Top	-	-	0.180*	0.089	0.269
	Bottom	0.908	0.124	-	-	1.032		Bottom	0.138	0.124	-	-	0.262
	Right	-	0.657	-	-	0.657		Right	0.198	0.657	-	-	0.855
	Left	0.132	-	0.180	0.089*	0.401		Left	-	-	0.180	0.089*	0.269

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n25 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.759	0.353	0.075	0.080	1.267	Hotspot SAR	Back	0.345	0.353	0.075	0.080	0.853
	Front	0.855	0.325	0.180*	0.043	**1.403**		Front	0.276	0.325	0.180*	0.043	0.824
	Top	-	-	0.180*	0.089	0.269		Top	-	-	0.180*	0.089	0.269
	Bottom	0.790	0.206	-	-	0.996		Bottom	0.138	0.206	-	-	0.344
	Right	-	0.883	-	-	0.883		Right	0.198	0.883	-	-	**1.081**
	Left	0.203	-	0.180	0.089*	0.472		Left	-	-	0.180	0.089*	0.269

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.759	0.251	0.075	0.080	**1.165**	Hotspot SAR	Back	0.454	0.251	0.075	0.080	0.860
	Front	0.855	0.017	0.180*	0.043	1.095		Front	0.689	0.017	0.180*	0.043	**0.929**
	Top	-	-	0.180*	0.089	0.269		Top	-	-	0.180*	0.089	0.269
	Bottom	0.790	-	-	-	0.790		Bottom	0.908	-	-	-	0.908
	Right	-	0.101	-	-	0.101		Right	-	0.101	-	-	0.101
	Left	0.203	-	0.180	0.089*	0.472		Left	0.132	-	0.180	0.089*	0.401

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Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	2.4 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4			1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.345	0.310	0.249	0.218	**1.122**	Hotspot SAR	Back	0.345	0.319	0.249	0.218	**1.131**
	Front	0.276	0.248	0.266	0.096	0.886		Front	0.276	0.265	0.266	0.096	0.903
	Top	-	-	0.276	0.182	0.458		Top	-	-	0.276	0.182	0.458
	Bottom	0.138	0.119	-	-	0.257		Bottom	0.138	0.143	-	-	0.281
	Right	0.198	0.677	-	-	0.875		Right	0.198	0.760	-	-	0.958
	Left	-	-	0.680	0.218*	0.898		Left	-	-	0.680	0.218*	0.898

Table 12-16
Simultaneous Transmission Scenario with 5 GHz WLAN (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	EVDO BC10 (§90S)	0.363	0.763	0.218	1.126	0.581
	EVDO BC0 (§22H)	0.404	0.763	0.218	1.167	0.622
	PCS EVDO	0.841	0.763	0.218	See Table Below	1.059
	GPRS 850	0.515	0.763	0.218	1.278	0.733
	GPRS 1900	0.509	0.763	0.218	1.272	0.727
	UMTS 850	0.378	0.763	0.218	1.141	0.596
	UMTS 1750	0.872	0.763	0.218	See Table Below	1.090
	UMTS 1900	0.687	0.763	0.218	1.450	0.905
	LTE Band 71	0.286	0.763	0.218	1.049	0.504
	LTE Band 12	0.345	0.763	0.218	1.108	0.563
	LTE Band 13	0.324	0.763	0.218	1.087	0.542
	LTE Band 26 (Cell)	0.514	0.763	0.218	1.277	0.732
	LTE Band 66 (AWS)	0.855	0.763	0.218	See Table Below	1.073
	LTE Band 25 (PCS)	0.908	0.763	0.218	See Table Below	1.126
	LTE Band 41	0.881	0.763	0.218	See Table Below	1.099
	NR Band n71	0.244	0.763	0.218	1.007	0.462
	NR Band n66 Ant 2	1.065	0.763	0.218	See Table Below	1.283
	NR Band n66 Ant 3	0.657	0.763	0.218	1.420	0.875
	NR Band n25 Ant 2	0.722	0.763	0.218	**1.485**	0.940
	NR Band n25 Ant 3	0.883	0.763	0.218	See Table Below	1.101
	NR Band n41	0.251	0.763	0.218	1.014	0.469

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Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	EVDO BC10 (§90S)	0.363	0.774	1.137
	EVDO BC0 (§22H)	0.404	0.774	1.178
	PCS EVDO	0.841	0.774	See Table Below
	GPRS 850	0.515	0.774	1.289
	GPRS 1900	0.509	0.774	1.283
	UMTS 850	0.378	0.774	1.152
	UMTS 1750	0.872	0.774	See Table Below
	UMTS 1900	0.687	0.774	1.461
	LTE Band 71	0.286	0.774	1.060
	LTE Band 12	0.345	0.774	1.119
	LTE Band 13	0.324	0.774	1.098
	LTE Band 26 (Cell)	0.514	0.774	1.288
	LTE Band 66 (AWS)	0.855	0.774	See Table Below
	LTE Band 25 (PCS)	0.908	0.774	See Table Below
	LTE Band 41	0.881	0.774	See Table Below
	NR Band n71	0.244	0.774	1.018
	NR Band n66 Ant 2	1.065	0.774	See Table Below
	NR Band n66 Ant 3	0.657	0.774	1.431
	NR Band n25 Ant 2	0.722	0.774	**1.496**
	NR Band n25 Ant 3	0.883	0.774	See Table Below
	NR Band n41	0.251	0.774	1.025

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.500	0.763	0.218	1.263	0.718	**1.481**
	Front	0.633	0.075	0.096	0.708	0.729	0.804
	Top	-	0.325	0.182	0.325	0.182	0.507
	Bottom	0.841	-	-	0.841	0.841	0.841
	Left	0.096	0.763*	0.218*	0.859	0.314	1.077

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.611	0.763	0.218	1.374	0.829	**1.592**
	Front	0.872	0.075	0.096	0.947	0.968	1.043
	Top	-	0.325	0.182	0.325	0.182	0.507
	Bottom	0.827	-	-	0.827	0.827	0.827
	Left	0.170	0.763*	0.218*	0.933	0.388	1.151

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.589	0.763	0.218	1.352	0.807	**1.570**
	Front	0.672	0.075	0.096	0.747	0.768	0.843
	Top	-	0.325	0.182	0.325	0.182	0.507
	Bottom	0.687	-	-	0.687	0.687	0.687
	Left	0.089	0.763*	0.218*	0.852	0.307	1.070

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Hotspot SAR	Back	0.759	0.763	0.218	**1.522**	0.977
	Front	0.855	0.075	0.096	0.930	0.951
	Top	-	0.325	0.182	0.325	0.182
	Bottom	0.790	-	-	0.790	0.790
	Left	0.203	0.763*	0.218*	0.966	0.421

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	Back	0.759	0.774	**1.533**
	Front	0.855	0.181	1.036
	Top	-	0.339	0.339
	Bottom	0.790	-	0.790
	Left	0.203	0.774*	0.977

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.454	0.763	0.218	1.217	0.672	**1.435**
	Front	0.689	0.075	0.096	0.764	0.785	0.860
	Top	-	0.325	0.182	0.325	0.182	0.507
	Bottom	0.908	-	-	0.908	0.908	0.908
	Left	0.132	0.763*	0.218*	0.895	0.350	1.113

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Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			Simult Tx	Configuration	NR Band n66 Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2+3			1	2	3	1+2	1+3	1+2
Hotspot SAR	Back	0.418	0.763	0.218	1.181	0.636	**1.399**	Hotspot SAR	Back	0.902	0.763	0.218	See Note 1	**1.120**	0.01
	Front	0.263	0.075	0.096	0.338	0.359	0.434		Front	1.065	0.075	0.096	1.140	1.161	N/A
	Top	-	0.325	0.182	0.325	0.182	0.507		Top	-	0.325	0.182	0.325	0.182	N/A
	Bottom	0.881	-	-	0.881	0.881	0.881		Bottom	0.787	-	-	0.787	0.787	N/A
	Left	0.082	0.763*	0.218*	0.845	0.300	1.063		Left	0.149	0.763*	0.218*	0.912	0.367	N/A

Simult Tx	Configuration	NR Band n66 Ant 2 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR	Simult Tx	Configuration	NR Band n25 Ant 3 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	1+2	1+2			2	2	3	1+2	1+3	1+2+3
Hotspot SAR	Back	0.902	0.774	See Note 1	0.01	Hotspot SAR	Back	0.353	0.763	0.218	1.116	0.571	**1.334**
	Front	1.065	0.181	**1.246**	N/A		Front	0.325	0.075	0.096	0.400	0.421	0.496
	Top	-	0.339	0.339	N/A		Top	-	0.325	0.182	0.325	0.182	0.507
	Bottom	0.787	-	0.787	N/A		Bottom	0.206	-	-	0.206	0.206	0.206
	Left	0.149	0.774*	0.923	N/A		Right	0.883	-	-	0.883	0.883	0.883
							Left	-	0.763*	0.218*	0.763	0.218	0.981

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4			1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.759	0.244	0.389	0.080	1.392	1.083	**1.472**	Hotspot SAR	Back	0.454	0.244	0.389	0.080	1.087	0.778	**1.167**
	Front	0.855	0.201	0.055	0.043	1.111	1.099	1.154		Front	0.689	0.201	0.055	0.043	0.945	0.933	0.988
	Top	-	-	0.389*	0.089	0.389	0.089	0.478		Top	-	-	0.389*	0.089	0.389	0.089	0.478
	Bottom	0.790	0.097	-	-	0.887	0.887	0.887		Bottom	0.908	0.097	-	-	1.005	1.005	1.005
	Right	-	0.228	-	-	0.228	0.228	0.228		Right	-	0.228	-	-	0.228	0.228	0.228
	Left	0.203	-	0.389*	0.089*	0.592	0.292	0.681		Left	0.132	-	0.389*	0.089*	0.521	0.221	0.610

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4			1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.454	0.376	0.389	0.080	1.219	0.910	**1.299**	Hotspot SAR	Back	0.345	0.376	0.389	0.080	1.110	0.801	**1.190**
	Front	0.689	0.325	0.055	0.043	1.069	1.057	1.112		Front	0.276	0.325	0.055	0.043	0.656	0.644	0.699
	Top	-	-	0.389*	0.089	0.389	0.089	0.478		Top	-	-	0.389*	0.089	0.389	0.089	0.478
	Bottom	0.908	0.124	-	-	1.032	1.032	1.032		Bottom	0.138	0.124	-	-	0.262	0.262	0.262
	Right	-	0.657	-	-	0.657	0.657	0.657		Right	0.198	0.657	-	-	0.855	0.855	0.855
	Left	0.132	-	0.389*	0.089*	0.521	0.221	0.610		Left	-	-	0.389*	0.089*	0.389	0.089	0.478

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n25 (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4			1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.759	0.353	0.389	0.080	1.501	1.192	1.581	Hotspot SAR	Back	0.345	0.353	0.389	0.080	1.087	0.778	**1.167**
	Front	0.855	0.325	0.055	0.043	1.235	1.223	1.278		Front	0.276	0.325	0.055	0.043	0.656	0.644	0.699
	Top	-	-	0.389*	0.089	0.389	0.089	0.478		Top	-	-	0.389*	0.089	0.389	0.089	0.478
	Bottom	0.790	0.206	-	-	0.996	0.996	0.996		Bottom	0.138	0.206	-	-	0.344	0.344	0.344
	Right	-	0.883	-	-	0.883	0.883	0.883		Right	0.198	0.883	-	-	1.081	1.081	1.081
	Left	0.203	-	0.389*	0.089*	0.592	0.292	0.681		Left	-	-	0.389*	0.089*	0.389	0.089	0.478

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4			1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.759	0.251	0.389	0.080	1.399	1.090	**1.479**	Hotspot SAR	Back	0.454	0.251	0.389	0.080	1.094	0.785	**1.174**
	Front	0.855	0.017	0.055	0.043	0.927	0.915	0.970		Front	0.689	0.017	0.055	0.043	0.761	0.749	0.804
	Top	-	-	0.389*	0.089	0.389	0.089	0.478		Top	-	-	0.389*	0.089	0.389	0.089	0.478
	Bottom	0.790	-	-	-	0.790	0.790	0.790		Bottom	0.908	-	-	-	0.908	0.908	0.908
	Right	-	0.101	-	-	0.101	0.101	0.101		Right	-	0.101	-	-	0.101	0.101	0.101
	Left	0.203	-	0.389*	0.089*	0.592	0.292	0.681		Left	0.132	-	0.389*	0.089*	0.521	0.221	0.610

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3	1+2+4			1	2	3	1+2+3
Hotspot SAR	Back	0.345	0.310	0.763	0.218	**1.418**	0.873	Hotspot SAR	Back	0.345	0.310	0.774	**1.429**
	Front	0.276	0.248	0.075	0.096	0.599	0.620		Front	0.276	0.248	0.181	0.705
	Top	-	-	0.325	0.182	0.325	0.182		Top	-	-	0.339	0.339
	Bottom	0.138	0.119	-	-	0.257	0.257		Bottom	0.138	0.119	-	0.257
	Right	0.198	0.677	-	-	0.875	0.875		Right	0.198	0.677	-	0.875
	Left	-	-	0.763*	0.218*	0.763	0.218		Left	-	-	0.774*	0.774

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3	1+2+4			1	2	3	1+2+3
Hotspot SAR	Back	0.345	0.319	0.763	0.218	**1.427**	0.882	Hotspot SAR	Back	0.345	0.319	0.774	**1.438**
	Front	0.276	0.265	0.075	0.096	0.616	0.637		Front	0.276	0.265	0.181	0.722
	Top	-	-	0.325	0.182	0.325	0.182		Top	-	-	0.339	0.339
	Bottom	0.138	0.143	-	-	0.281	0.281		Bottom	0.138	0.143	-	0.281
	Right	0.198	0.760	-	-	0.958	0.958		Right	0.198	0.760	-	0.958
	Left	-	-	0.763*	0.218*	0.763	0.218		Left	-	-	0.774*	0.774

Notes:

1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.

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Table 12-17
Simultaneous Transmission Scenario with Bluetooth (Hotspot at 1.0 cm)

Configuration	Mode	2G/3G/4G/5G SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Hotspot SAR	EVDO BC10 (§90S)	0.363	0.070	0.433
	EVDO BC0 (§22H)	0.404	0.070	0.474
	PCS EVDO	0.841	0.070	0.911
	GPRS 850	0.515	0.070	0.585
	GPRS 1900	0.509	0.070	0.579
	UMTS 850	0.378	0.070	0.448
	UMTS 1750	0.872	0.070	0.942
	UMTS 1900	0.687	0.070	0.757
	LTE Band 71	0.286	0.070	0.356
	LTE Band 12	0.345	0.070	0.415
	LTE Band 13	0.324	0.070	0.394
	LTE Band 26 (Cell)	0.514	0.070	0.584
	LTE Band 66 (AWS)	0.855	0.070	0.925
	LTE Band 25 (PCS)	0.908	0.070	**0.978**
	LTE Band 41	0.881	0.070	0.951
	NR Band n71	0.244	0.070	0.314
	NR Band n66 Ant 2	1.065	0.070	1.135
	NR Band n66 Ant 3	0.657	0.070	0.727
	NR Band n25 Ant 2	0.722	0.070	0.792
	NR Band n25 Ant 3	0.883	0.070	0.953
	NR Band n41	0.251	0.070	0.321

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.759	0.244	0.027	1.030	Hotspot SAR	Back	0.454	0.244	0.027	0.725
	Front	0.855	0.201	0.024	**1.080**		Front	0.689	0.201	0.024	0.914
	Top	-	-	0.028	0.028		Top	-	-	0.028	0.028
	Bottom	0.790	0.097	-	0.887		Bottom	0.908	0.097	-	**1.005**
	Right	-	0.228	-	0.228		Right	-	0.228	-	0.228
	Left	0.203	-	0.070	0.273		Left	0.132	-	0.070	0.202

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.454	0.376	0.027	0.857	Hotspot SAR	Back	0.345	0.376	0.027	0.748
	Front	0.689	0.325	0.024	**1.038**		Front	0.276	0.325	0.024	0.625
	Top	-	-	0.028	0.028		Top	-	-	0.028	0.028
	Bottom	0.908	0.124	-	1.032		Bottom	0.138	0.124	-	0.262
	Right	-	0.657	-	0.657		Right	0.198	0.657	-	**0.855**
	Left	0.132	-	0.070	0.202		Left	-	-	0.070	0.070

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Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n25 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.345	0.353	0.027	0.725	Hotspot SAR	Back	0.759	0.353	0.027	1.139
	Front	0.276	0.325	0.024	0.625		Front	0.855	0.325	0.024	**1.204**
	Top	-	-	0.028	0.028		Top	-	-	0.028	0.028
	Bottom	0.138	0.206	-	0.344		Bottom	0.790	0.206	-	0.996
	Right	0.198	0.883	-	**1.081**		Right	-	0.883	-	0.883
	Left	-	-	0.070	0.070		Left	0.203	-	0.070	0.273

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.454	0.251	0.027	0.732	Hotspot SAR	Back	0.759	0.251	0.027	**1.037**
	Front	0.689	0.017	0.024	0.730		Front	0.855	0.017	0.024	0.896
	Top	-	-	0.028	0.028		Top	-	-	0.028	0.028
	Bottom	0.908	-	-	**0.908**		Bottom	0.790	-	-	0.790
	Right	-	0.101	-	0.101		Right	-	0.101	-	0.101
	Left	0.132	-	0.070	0.202		Left	0.203	-	0.070	0.273

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3			1	2	3	1+2+3
Hotspot SAR	Back	0.345	0.310	0.027	0.682	Hotspot SAR	Back	0.345	0.319	0.027	0.691
	Front	0.276	0.248	0.024	0.548		Front	0.276	0.265	0.024	0.565
	Top	-	-	0.028	0.028		Top	-	-	0.028	0.028
	Bottom	0.138	0.119	-	0.257		Bottom	0.138	0.143	-	0.281
	Right	0.198	0.677	-	**0.875**		Right	0.198	0.760	-	**0.958**
	Left	-	-	0.070	0.070		Left	-	-	0.070	0.070

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Table 12-18
Simultaneous Transmission Scenario with Bluetooth and 5 GHz WLAN (Hotspot at 1.0 cm)

Exposure Condition	Mode	2G/3G/4G/5G SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+4	1+3+4	1+2+3+4
Hotspot SAR	EVDO BC10 (§90S)	0.363	0.763	0.218	0.070	1.126	0.581	1.414
	EVDO BC0 (§22H)	0.404	0.763	0.218	0.070	1.167	0.622	1.455
	PCS EVDO	0.841	0.763	0.218	0.070	See Table Below	1.059	See Table Below
	GPRS 850	0.515	0.763	0.218	0.070	1.278	0.733	**1.566**
	GPRS 1900	0.509	0.763	0.218	0.070	1.272	0.727	1.560
	UMTS 850	0.378	0.763	0.218	0.070	1.141	0.596	1.429
	UMTS 1750	0.872	0.763	0.218	0.070	See Table Below	1.090	See Table Below
	UMTS 1900	0.687	0.763	0.218	0.070	1.450	0.905	See Table Below
	LTE Band 71	0.286	0.763	0.218	0.070	1.049	0.504	1.337
	LTE Band 12	0.345	0.763	0.218	0.070	1.108	0.563	1.396
	LTE Band 13	0.324	0.763	0.218	0.070	1.087	0.542	1.375
	LTE Band 26 (Cell)	0.514	0.763	0.218	0.070	1.277	0.732	1.565
	LTE Band 66 (AWS)	0.855	0.763	0.218	0.070	See Table Below	1.073	See Table Below
	LTE Band 25 (PCS)	0.908	0.763	0.218	0.070	See Table Below	1.126	See Table Below
	LTE Band 41	0.881	0.763	0.218	0.070	See Table Below	1.099	See Table Below
	NR Band n71	0.244	0.763	0.218	0.070	1.007	0.462	1.295
	NR Band n66 Ant 2	1.065	0.763	0.218	0.070	See Table Below	1.283	See Table Below
	NR Band n66 Ant 3	0.657	0.763	0.218	0.070	1.420	0.875	See Table Below
	NR Band n25 Ant 2	0.722	0.763	0.218	0.070	1.485	0.940	See Table Below
	NR Band n25 Ant 3	0.883	0.763	0.218	0.070	See Table Below	1.101	See Table Below
	NR Band n41	0.251	0.763	0.218	0.070	1.014	0.469	1.302

Simult Tx	Configuration	PCS CDMA SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.500	0.027	0.763	0.218	1.290	0.745	**1.508**
	Front	0.633	0.024	0.075	0.096	0.732	0.753	0.828
	Top	-	0.028	0.325	0.182	0.353	0.210	0.535
	Bottom	0.841	-	-	-	0.841	0.841	0.841
	Right	-	-	-	-	0.000	0.000	0.000
	Left	0.096	0.070	0.763*	0.218*	0.929	0.384	1.147

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	4	1+2+3	1+2+4
Hotspot SAR	Back	0.611	0.027	0.763	0.218	**1.401**	0.856
	Front	0.872	0.024	0.075	0.096	0.971	0.992
	Top	-	0.028	0.325	0.182	0.353	0.210
	Bottom	0.827	-	-	-	0.827	0.827
	Left	0.170	0.070	0.763*	0.218*	1.003	0.458

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.611	0.027	0.774	**1.412**
	Front	0.872	0.024	0.181	1.077
	Top	-	0.028	0.339	0.367
	Bottom	0.827	-	-	0.827
	Left	0.170	0.070	0.774*	1.014

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	4	1+2+3	1+2+4
Hotspot SAR	Back	0.589	0.027	0.763	0.218	**1.379**	0.834
	Front	0.672	0.024	0.075	0.096	0.771	0.792
	Top	-	0.028	0.325	0.182	0.353	0.210
	Bottom	0.687	-	-	-	0.687	0.687
	Left	0.089	0.070	0.763*	0.218*	0.922	0.377

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.589	0.027	0.774	**1.390**
	Front	0.672	0.024	0.181	0.877
	Top	-	0.028	0.339	0.367
	Bottom	0.687	-	-	0.687
	Left	0.089	0.070	0.774*	0.933

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	4	1+2+3	1+2+4
Hotspot SAR	Back	0.759	0.027	0.763	0.218	**1.549**	1.004
	Front	0.855	0.024	0.075	0.096	0.954	0.975
	Top	-	0.028	0.325	0.182	0.353	0.210
	Bottom	0.790	-	-	-	0.790	0.790
	Left	0.203	0.070	0.763*	0.218*	1.036	0.491

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Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.759	0.027	0.774	**1.560**
	Front	0.855	0.024	0.181	1.060
	Top	-	0.028	0.339	0.367
	Bottom	0.790	-	-	0.790
	Left	0.203	0.070	0.774*	1.047

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.454	0.027	0.763	0.218	1.244	0.699	**1.462**
	Front	0.689	0.024	0.075	0.096	0.788	0.809	0.884
	Top	-	0.028	0.325	0.182	0.353	0.210	0.535
	Bottom	0.908	-	-	-	0.908	0.908	0.908
	Left	0.132	0.070	0.763*	0.218*	0.965	0.420	1.183

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.418	0.027	0.763	0.218	1.208	0.663	**1.426**
	Front	0.263	0.024	0.075	0.096	0.362	0.383	0.458
	Top	-	0.028	0.325	0.182	0.353	0.210	0.535
	Bottom	0.881	-	-	-	0.881	0.881	0.881
	Left	0.082	0.070	0.763*	0.218*	0.915	0.370	1.133

Simult Tx	Configuration	NR Band n66 Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR		
		1	2	3	4	1+2+3	1+2+4	1+2	1+3	2+3
Hotspot SAR	Back	0.902	0.027	0.763	0.218	See Note 1	**1.147**	0.01	0.01	0.04
	Front	1.065	0.024	0.075	0.096	1.164	1.185	N/A	N/A	N/A
	Top	-	0.028	0.325	0.182	0.353	0.210	N/A	N/A	N/A
	Bottom	0.787	-	-	-	0.787	0.787	N/A	N/A	N/A
	Left	0.149	0.070	0.763*	0.218*	0.982	0.437	N/A	N/A	N/A

Simult Tx	Configuration	NR Band n66 Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	1+2+3
Hotspot SAR	Back	0.902	0.027	0.774	See Note 2
	Front	1.065	0.024	0.181	**1.270**
	Top	-	0.028	0.339	0.367
	Bottom	0.787	-	-	0.787
	Left	0.149	0.070	0.774*	0.993

Simult Tx	Configuration	NR Band n66 Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.376	0.027	0.763	0.218	1.166	0.621	1.384
	Front	0.325	0.024	0.075	0.096	0.424	0.445	0.520
	Top	-	0.028	0.325	0.182	0.353	0.210	0.535
	Bottom	0.124	-	-	-	0.124	0.124	0.124
	Right	0.657	-	-	-	0.657	0.657	0.657
	Left	-	0.070	0.763*	0.218*	0.833	0.288	1.051

Simult Tx	Configuration	NR Band n25 Ant 2 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.569	0.027	0.763	0.218	1.359	0.814	**1.577**
	Front	0.722	0.024	0.075	0.096	0.821	0.842	0.917
	Top	-	0.028	0.325	0.182	0.353	0.210	0.535
	Bottom	0.617	-	-	-	0.617	0.617	0.617
	Left	0.069	0.070	0.763*	0.218*	0.902	0.357	1.120

Simult Tx	Configuration	NR Band n25 Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	1+2+3	1+2+4	1+2+3+4
Hotspot SAR	Back	0.353	0.027	0.763	0.218	1.143	0.598	**1.361**
	Front	0.325	0.024	0.075	0.096	0.424	0.445	0.520
	Top	-	0.028	0.325	0.182	0.353	0.210	0.535
	Bottom	0.206	-	-	-	0.206	0.206	0.206
	Right	0.883	-	-	-	0.883	0.883	0.883
	Left	-	0.070	0.763*	0.218*	0.833	0.288	1.051

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5
Hotspot SAR	Back	0.759	0.244	0.027	0.389	0.080	1.419	1.110	**1.499**
	Front	0.855	0.201	0.024	0.055	0.043	1.135	1.123	1.178
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497
	Bottom	0.790	0.097	-	-	-	0.887	0.887	0.887
	Right	-	0.228	-	-	-	0.228	0.228	0.228
	Left	0.203	-	0.070	0.389*	0.089*	0.662	0.353	0.742

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n71 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5
Hotspot SAR	Back	0.454	0.244	0.027	0.389	0.080	1.114	0.805	**1.194**
	Front	0.689	0.201	0.024	0.055	0.043	0.969	0.957	1.012
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497
	Bottom	0.908	0.097	-	-	-	1.005	1.005	1.005
	Right	-	0.228	-	-	-	0.228	0.228	0.228
	Left	0.132	-	0.070	0.389*	0.089*	0.591	0.282	0.671

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5
Hotspot SAR	Back	0.454	0.376	0.027	0.389	0.080	1.246	0.937	**1.326**
	Front	0.689	0.325	0.024	0.055	0.043	1.093	1.081	1.136
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497
	Bottom	0.908	0.124	-	-	-	1.032	1.032	1.032
	Right	-	0.657	-	-	-	0.657	0.657	0.657
	Left	0.132	-	0.070	0.389*	0.089*	0.591	0.282	0.671

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n66 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5
Hotspot SAR	Back	0.345	0.376	0.027	0.389	0.080	1.137	0.828	**1.217**
	Front	0.276	0.325	0.024	0.055	0.043	0.680	0.668	0.723
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497
	Bottom	0.138	0.124	-	-	-	0.262	0.262	0.262
	Right	0.198	0.657	-	-	-	0.657	0.657	0.657
	Left	-	-	0.070	0.389*	0.089*	0.459	0.150	0.539

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	NR Band n25 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5
Hotspot SAR	Back	0.345	0.353	0.027	0.389	0.080	1.114	0.805	**1.194**
	Front	0.276	0.325	0.024	0.055	0.043	0.680	0.668	0.723
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497
	Bottom	0.138	0.206	-	-	-	0.344	0.344	0.344
	Right	0.198	0.883	-	-	-	0.883	0.883	0.883
	Left	-	-	0.070	0.389*	0.089*	0.459	0.150	0.539

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5
Hotspot SAR	Back	0.759	0.251	0.027	0.389	0.080	1.426	1.117	**1.506**
	Front	0.855	0.017	0.024	0.055	0.043	0.951	0.939	0.994
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497
	Bottom	0.790	-	-	-	-	0.790	0.790	0.790
	Right	-	0.101	-	-	-	0.101	0.101	0.101
	Left	0.203	-	0.070	0.389*	0.089*	0.662	0.353	0.742

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n41 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5
Hotspot SAR	Back	0.454	0.251	0.027	0.389	0.080	1.121	0.812	**1.201**
	Front	0.689	0.017	0.024	0.055	0.043	0.785	0.773	0.828
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497
	Bottom	0.908	-	-	-	-	0.908	0.908	0.908
	Right	-	0.101	-	-	-	0.101	0.101	0.101
	Left	0.132	-	0.070	0.389*	0.089*	0.591	0.282	0.671

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Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)			SPLSR									
		1	2	3	4	5	1+2+3+4	1+2+3+5	1+2+3+4+5	1+2	1+3	1+4	1+5	2+3	2+4	2+5	3+4	3+5	4+5
Hotspot SAR	Back	0.759	0.353	0.027	0.389	0.080	**1.528**	1.219	See Note 1	0.02	0.00	0.01	0.01	0.00	0.01	0.00	0.02	0.00	0.04
	Front	0.855	0.325	0.024	0.055	0.043	1.259	1.247	1.302	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Top	-	-	0.028	0.389*	0.089	0.497	0.497	0.497	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Bottom	0.790	0.206	-	-	-	0.996	0.996	0.996	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Right	-	0.883	-	-	-	0.883	0.883	0.883	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Left	0.203	-	0.070	0.389*	0.089*	0.662	0.353	0.742	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	4	5	1+2+3+4	1+2+3+5
Hotspot SAR	Back	0.345	0.310	0.027	0.763	0.218	**1.445**	0.900
	Front	0.276	0.248	0.024	0.075	0.096	0.623	0.644
	Top	-	-	0.028	0.325	0.182	0.353	0.210
	Bottom	0.138	0.119	-	-	-	0.257	0.257
	Right	0.198	0.677	-	-	-	0.875	0.875
	Left	-	-	0.070	0.763*	0.218*	0.833	0.288

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 66 (AWS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.345	0.310	0.027	0.774	**1.456**
	Front	0.276	0.248	0.024	0.181	0.729
	Top	-	-	0.028	0.339	0.367
	Bottom	0.138	0.119	-	-	0.257
	Right	0.198	0.677	-	-	0.875
	Left	-	-	0.070	0.774*	0.844

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	4	5	1+2+3+4	1+2+3+5
Hotspot SAR	Back	0.345	0.319	0.027	0.763	0.218	**1.454**	0.909
	Front	0.276	0.265	0.024	0.075	0.096	0.640	0.661
	Top	-	-	0.028	0.325	0.182	0.353	0.210
	Bottom	0.138	0.143	-	-	-	0.281	0.281
	Right	0.198	0.760	-	-	-	0.958	0.958
	Left	-	-	0.070	0.763*	0.218*	0.833	0.288

Simult Tx	Configuration	LTE Band 12 SAR (W/kg)	LTE Band 2 (PCS) Ant 3 SAR (W/kg)	Bluetooth SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	3	4	1+2+3+4
Hotspot SAR	Back	0.345	0.319	0.027	0.774	**1.465**
	Front	0.276	0.265	0.024	0.181	0.746
	Top	-	-	0.028	0.339	0.367
	Bottom	0.138	0.143	-	-	0.281
	Right	0.198	0.760	-	-	0.958
	Left	-	-	0.070	0.774*	0.844

Notes:
1. No evaluation was performed to determine the aggregate 1g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.04 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.
2. Please see section 12.8 for detailed simultaneous transmission analysis.

12.6 Phablet Simultaneous Transmission Analysis

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required if wireless router 1g SAR (scaled to the maximum output power, including tolerance) < 1.2 W/kg. Therefore, no further analysis beyond the tables included in this section was required to determine that possible simultaneous transmission scenarios would not exceed the SAR limit.

For SAR summation, the highest reported SAR across all test distances was used as the most conservative evaluation for simultaneous transmission analysis for each device edge.

Table 12-19
Simultaneous Transmission Scenario with 5 GHz WLAN SISO (Phablet)

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
Phablet SAR	Back	2.810	1.210	0.719	See Note 1	**3.529**	0.05
	Front	1.837	0.176	0.544	2.013	2.381	N/A
	Top	-	1.210*	0.719*	1.210	0.719	N/A
	Bottom	2.861	-	-	2.861	2.861	N/A
	Left	0.306	0.328	0.719*	0.634	1.025	N/A

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	2.619	1.210	0.719	**3.829**	3.338
	Front	2.616	0.176	0.544	2.792	3.160
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	1.951	-	-	1.951	1.951
	Left	0.642	0.328	0.719*	0.970	1.361

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	2.433	1.210	0.719	**3.643**	3.152
	Front	2.411	0.176	0.544	2.587	2.955
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	2.320	-	-	2.320	2.320
	Left	0.508	0.328	0.719*	0.836	1.227

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	2.653	1.210	0.719	**3.863**	3.372
	Front	2.211	0.176	0.544	2.387	2.755
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	2.631	-	-	2.631	2.631
	Left	0.707	0.328	0.719*	1.035	1.426

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Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.986	1.210	0.719	**3.196**	2.705
	Front	1.996	0.176	0.544	2.172	2.540
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	2.872	-	-	2.872	2.872
	Left	0.572	0.328	0.719*	0.900	1.291

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	2.272	1.210	0.719	**3.482**	2.991
	Front	1.422	0.176	0.544	1.598	1.966
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	2.768	-	-	2.768	2.768
	Left	0.332	0.328	0.719*	0.660	1.051

Simult Tx	Configuration	NR Band n66 Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR
		1	2	3	1+2	1+3	1+2
Phablet SAR	Back	3.052	1.210	0.719	See Note 1	**3.771**	0.06
	Front	2.839	0.176	0.544	3.015	3.383	N/A
	Top	-	1.210*	0.719*	1.210	0.719	N/A
	Bottom	2.311	-	-	2.311	2.311	N/A
	Left	0.748	0.328	0.719*	1.076	1.467	N/A

Simult Tx	Configuration	NR Band n25 Ant 2 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	2.495	1.210	0.719	**3.705**	3.214
	Front	1.979	0.176	0.544	2.155	2.523
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	2.674	-	-	2.674	2.674
	Left	0.468	0.328	0.719*	0.796	1.187

Simult Tx	Configuration	NR Band n66 Ant 3 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.423	1.210	0.719	**2.633**	2.142
	Front	1.442	0.176	0.544	1.618	1.986
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	0.562	-	-	0.562	0.562
	Right	2.650	-	-	2.650	2.650
	Left	-	0.328	0.719*	0.328	0.719

Simult Tx	Configuration	NR Band n25 Ant 3 SAR (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)	
		1	2	3	1+2	1+3
Phablet SAR	Back	1.573	1.210	0.719	**2.783**	2.292
	Front	1.378	0.176	0.544	1.554	1.922
	Top	-	1.210*	0.719*	1.210	0.719
	Bottom	0.628	-	-	0.628	0.628
	Right	2.673	-	-	2.673	2.673
	Left	-	0.328	0.719*	0.328	0.719

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR				
		1	2	3	4	1+2+3	1+2+4	1+2	1+3	1+4	2+3	2+4
Phablet SAR	Back	1.986	1.423	1.210	0.719	See Note 1	See Note 1	0.09	0.04	0.03	0.03	0.02
	Front	1.996	1.442	0.176	0.544	3.614	**3.982**	N/A	N/A	N/A	N/A	N/A
	Top	-	-	1.210*	0.719*	1.210	0.719	N/A	N/A	N/A	N/A	N/A
	Bottom	2.872	0.562	-	-	3.434	3.434	N/A	N/A	N/A	N/A	N/A
	Right	-	2.650	-	-	2.650	2.650	N/A	N/A	N/A	N/A	N/A
	Left	0.572	-	0.328	0.719*	0.900	1.291	N/A	N/A	N/A	N/A	N/A

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 (W/kg)	5 GHz WLAN Ant 1 SAR (W/kg)	5 GHz WLAN Ant 2 SAR (W/kg)	Σ SAR (W/kg)		SPLSR				
		1	2	3	4	1+2+3	1+2+4	1+2	1+3	1+4	2+3	2+4
Phablet SAR	Back	2.653	1.573	1.210	0.719	See Note 2	See Note 2	N/A	N/A	N/A	N/A	N/A
	Front	2.211	1.378	0.176	0.544	**3.765**	See Note 1	0.08	N/A	0.03	N/A	0.02
	Top	-	-	1.210*	0.719*	1.210	0.719	N/A	N/A	N/A	N/A	N/A
	Bottom	2.631	0.628	-	-	3.259	3.259	N/A	N/A	N/A	N/A	N/A
	Right	-	2.673	-	-	2.673	2.673	N/A	N/A	N/A	N/A	N/A
	Left	0.707	-	0.328	0.719*	1.035	1.426	N/A	N/A	N/A	N/A	N/A

Notes:

1. No evaluation was performed to determine the aggregate 10g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.10 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.
2. Please see section 12.8 for detailed simultaneous transmission analysis.

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Table 12-20
Simultaneous Transmission Scenario with 5 GHz WLAN MIMO (Phablet)

Simult Tx	Configuration	PCS EVDO SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.810	1.681	See Note 1	0.06
	Front	1.837	0.662	2.499	N/A
	Top	-	1.681*	1.681	N/A
	Bottom	2.861	-	**2.861**	N/A
	Left	0.306	0.504	0.810	N/A

Simult Tx	Configuration	UMTS 1750 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.619	1.681	See Note 1	0.06
	Front	2.616	0.662	**3.278**	N/A
	Top	-	1.681*	1.681	N/A
	Bottom	1.951	-	1.951	N/A
	Left	0.642	0.504	1.146	N/A

Simult Tx	Configuration	UMTS 1900 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.433	1.681	See Note 1	0.06
	Front	2.411	0.662	**3.073**	N/A
	Top	-	1.681*	1.681	N/A
	Bottom	2.320	-	2.320	N/A
	Left	0.508	0.504	1.012	N/A

Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.653	1.681	See Note 1	0.06
	Front	2.211	0.662	**2.873**	N/A
	Top	-	1.681*	1.681	N/A
	Bottom	2.631	-	2.631	N/A
	Left	0.707	0.504	1.211	N/A

Simult Tx	Configuration	LTE Band 25 (PCS) SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	1.986	1.681	**3.667**
	Front	1.996	0.662	2.658
	Top	-	1.681*	1.681
	Bottom	2.872	-	2.872
	Left	0.572	0.504	1.076

Simult Tx	Configuration	LTE Band 41 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2
Phablet SAR	Back	2.272	1.681	**3.953**
	Front	1.422	0.662	2.084
	Top	-	1.681*	1.681
	Bottom	2.768	-	2.768
	Left	0.332	0.504	0.836

Simult Tx	Configuration	NR Band n66 Ant 2 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	3.052	1.681	See Note 1	0.07
	Front	2.839	0.662	**3.501**	N/A
	Top	-	1.681*	1.681	N/A
	Bottom	2.311	-	2.311	N/A
	Left	0.748	0.504	1.252	N/A

Simult Tx	Configuration	NR Band n25 Ant 2 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR
		1	2	1+2	1+2
Phablet SAR	Back	2.495	1.681	See Note 1	0.06
	Front	1.979	0.662	2.641	N/A
	Top	-	1.681*	1.681	N/A
	Bottom	2.674	-	**2.674**	N/A
	Left	0.468	0.504	0.972	N/A

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Simult Tx	Configuration	NR Band n66 Ant 3 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	Simult Tx	Configuration	NR Band n25 Ant 3 SAR (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)
		1	2	1+2			1	2	1+2
Phablet SAR	Back	1.423	1.681	**3.104**	Phablet SAR	Back	1.573	1.681	**3.254**
	Front	1.442	0.662	2.104		Front	1.378	0.662	2.040
	Top	-	1.681*	1.681		Top	-	1.681*	1.681
	Bottom	0.562	-	0.562		Bottom	0.628	-	0.628
	Right	2.650	-	2.650		Right	2.673	-	2.673
	Left	-	0.504	0.504		Left	-	0.504	0.504

Simult Tx	Configuration	LTE Band 2 (PCS) SAR (W/kg)	NR Band n66 (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR			Simult Tx	Configuration	LTE Band 66 (AWS) SAR (W/kg)	NR Band n25 (W/kg)	5 GHz WLAN MIMO SAR (W/kg)	Σ SAR (W/kg)	SPLSR		
		1	2	3	1+2+3	1+2	1+3	2+3			1	2	3	1+2+3	1+2	1+3	2+3
Phablet SAR	Back	1.986	1.423	1.029	See Note 1	0.09	0.03	0.03	Phablet SAR	Back	2.653	1.573	1.029	See Note 2	N/A	N/A	N/A
	Front	1.996	1.442	0.446	**3.884**	N/A	N/A	N/A		Front	2.211	1.378	0.446	See Note 1	0.08	0.03	0.02
	Top	-	-	1.681*	1.681	N/A	N/A	N/A		Top	-	-	1.681*	1.681	N/A	N/A	N/A
	Bottom	2.872	0.562	-	3.434	N/A	N/A	N/A		Bottom	2.631	0.628	-	**3.259**	N/A	N/A	N/A
	Right	-	2.650	-	2.650	N/A	N/A	N/A		Right	-	2.673	-	2.673	N/A	N/A	N/A
	Left	0.572	-	0.504	1.076	N/A	N/A	N/A		Left	0.707	-	0.504	1.211	N/A	N/A	N/A

Notes:
1. No evaluation was performed to determine the aggregate 10g SAR for these configurations as the SPLS ratio between the antenna pairs was not greater than 0.10 per FCC KDB 447498 D01v06. See Section 12.7 for detailed SPLS ratio analysis.
2. Please see section 12.8 for detailed simultaneous transmission analysis.

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12.7 SPLSR Evaluation and Analysis

Per FCC KDB Publication 447498 D01v06, when the sum of the standalone transmitters is more than 4 W/kg for 10g, the SAR sum to peak locations can be analyzed to determine SAR distribution overlaps. When the SAR peak to location ratio (shown below) for each pair of antennas is ≤0.10 for 10g, simultaneous SAR evaluation is not required. The distance between the transmitters was calculated using the following formula.

$$\text{Distance}_{Tx1-Tx2} = R_i = \sqrt{(x_1 - x_2)^2 + (y_1 - y_2)^2} \text{ (Body-Worn, Hotspot, Phablet)}$$

$$\text{SPLS Ratio} = \frac{(SAR_1 + SAR_2)^{1.5}}{R_i}$$

12.7.1 Body-Worn Back Side SPLSR Evaluation and Analysis

Table 12-21
Peak SAR Locations for Body-Worn Back Side

Mode/Band	x (mm)	y (mm)	Reported SAR (W/kg)
Reduced 2.4 GHz WLAN Ant 1	6.20	51.60	0.075
Reduced 2.4 GHz WLAN Ant 2	-9.40	81.60	0.061
Bluetooth	-8.20	80.20	0.027
Reduced 5 GHz WLAN Ant 1	0.00	68.00	0.389
Reduced 5 GHz WLAN Ant 2	-7.00	70.00	0.080
Max 5 GHz WLAN Ant 1	-4.00	65.00	0.763
Max 5 GHz WLAN MIMO	-3.00	67.00	0.774
LTE Band 66 (AWS) Ant 2	-15.00	-75.00	0.960
NR Band n25 Ant 3	-56.00	-33.00	0.540
NR Band n66 Ant 2	-10.00	-85.50	0.946
LTE Band 25 (PCS)	7.00	-84.00	0.818
NR Band n71	-50.50	-55.00	0.244
NR Band n66 Ant 3	-65.50	-28.50	0.466
NR Band n41	-61.00	38.40	0.251
UMTS 1750	-9.00	-83.00	0.807

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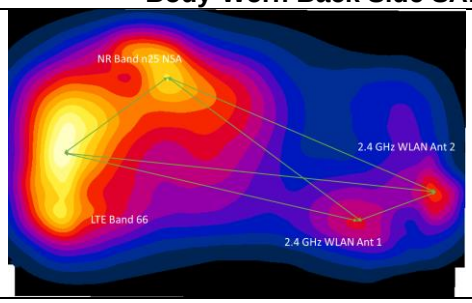
Table 12-22
Body-Worn Back Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
Reduced 2.4 GHz WLAN Ant 1	Reduced 2.4 GHz WLAN Ant 2	0.075	0.061	0.136	33.81	0.00	1
Reduced 2.4 GHz WLAN Ant 1	LTE Band 66 (AWS) Ant 2	0.075	0.960	1.035	128.36	0.01	
Reduced 2.4 GHz WLAN Ant 1	NR Band n25 Ant 3	0.075	0.540	0.615	105.00	0.00	
Reduced 2.4 GHz WLAN Ant 2	LTE Band 66 (AWS) Ant 2	0.061	0.960	1.021	156.70	0.01	
Reduced 2.4 GHz WLAN Ant 2	NR Band n25 Ant 3	0.061	0.540	0.601	123.71	0.00	
LTE Band 66 (AWS) Ant 2	NR Band n25 Ant 3	0.960	0.540	1.5	58.69	0.03	
Reduced 2.4 GHz WLAN Ant 1	Reduced 5 GHz WLAN Ant 2	0.075	0.080	0.155	22.65	0.00	2
Reduced 2.4 GHz WLAN Ant 1	LTE Band 66 (AWS) Ant 2	0.075	0.960	1.035	128.36	0.01	
Reduced 2.4 GHz WLAN Ant 1	NR Band n25 Ant 3	0.075	0.540	0.615	105.00	0.00	
Reduced 5 GHz WLAN Ant 2	LTE Band 66 (AWS) Ant 2	0.080	0.960	1.04	145.22	0.01	
Reduced 5 GHz WLAN Ant 2	NR Band n25 Ant 3	0.080	0.540	0.62	114.06	0.00	
LTE Band 66 (AWS) Ant 2	NR Band n25 Ant 3	0.960	0.540	1.5	58.69	0.03	
Max 5 GHz WLAN Ant 1	Bluetooth	0.763	0.027	0.79	15.77	0.04	3
Bluetooth	UMTS 1750	0.027	0.807	0.834	163.20	0.00	
Max 5 GHz WLAN Ant 1	UMTS 1750	0.763	0.807	1.57	148.08	0.01	
Max 5 GHz WLAN Ant 1	LTE Band 66 (AWS) Ant 2	0.763	0.960	1.723	140.43	0.02	4
Max 5 GHz WLAN Ant 1	Bluetooth	0.763	0.027	0.79	15.77	0.04	
Bluetooth	LTE Band 66 (AWS) Ant 2	0.027	0.960	0.987	155.35	0.01	
Max 5 GHz WLAN Ant 1	LTE Band 25 (PCS)	0.763	0.818	1.581	149.41	0.01	5
Max 5 GHz WLAN Ant 1	Bluetooth	0.763	0.027	0.79	15.77	0.04	
Bluetooth	LTE Band 25 (PCS)	0.027	0.818	0.845	164.90	0.00	
Max 5 GHz WLAN Ant 1	NR Band n66 Ant 2	0.763	0.946	1.709	150.62	0.01	6
Max 5 GHz WLAN Ant 1	Bluetooth	0.763	0.027	0.79	15.77	0.04	
Bluetooth	NR Band n66 Ant 2	0.027	0.946	0.973	165.71	0.01	
Max 5 GHz WLAN MIMO	LTE Band 66 (AWS) Ant 2	0.774	0.960	1.734	142.51	0.02	7
Max 5 GHz WLAN MIMO	NR Band n66 Ant 2	0.774	0.946	1.72	152.66	0.01	8
Reduced 5 GHz WLAN Ant 1	LTE Band 66 (AWS) Ant 2	0.389	0.960	1.349	143.78	0.01	9
Reduced 5 GHz WLAN Ant 1	NR Band n25 Ant 3	0.389	0.540	0.929	115.49	0.01	
LTE Band 66 (AWS) Ant 2	NR Band n66 Ant 3	0.960	0.466	1.426	68.65	0.02	
Bluetooth	Reduced 5 GHz WLAN Ant 1	0.027	0.389	0.416	14.70	0.02	
Bluetooth	LTE Band 66 (AWS) Ant 2	0.027	0.960	0.987	155.35	0.01	
Bluetooth	NR Band n25 Ant 3	0.027	0.540	0.567	122.88	0.00	
Bluetooth	Reduced 5 GHz WLAN Ant 2	0.027	0.080	0.107	10.27	0.00	
Reduced 5 GHz WLAN Ant 1	Reduced 5 GHz WLAN Ant 2	0.389	0.080	0.469	7.28	0.04	
Reduced 5 GHz WLAN Ant 2	LTE Band 66 (AWS) Ant 2	0.080	0.960	1.04	145.22	0.01	
Reduced 5 GHz WLAN Ant 2	NR Band n25 Ant 3	0.080	0.540	0.62	114.06	0.00	
Reduced 5 GHz WLAN Ant 1	LTE Band 66 (AWS) Ant 2	0.389	0.960	1.349	143.78	0.01	10
Reduced 5 GHz WLAN Ant 1	NR Band n71	0.389	0.244	0.633	132.96	0.00	
LTE Band 66 (AWS) Ant 2	NR Band n71	0.960	0.244	1.204	40.75	0.03	
Bluetooth	Reduced 5 GHz WLAN Ant 1	0.027	0.389	0.416	14.70	0.02	
Bluetooth	LTE Band 66 (AWS) Ant 2	0.027	0.960	0.987	155.35	0.01	
Bluetooth	NR Band n71	0.027	0.244	0.271	141.66	0.00	
Bluetooth	Reduced 5 GHz WLAN Ant 2	0.027	0.080	0.107	10.27	0.00	
Reduced 5 GHz WLAN Ant 1	Reduced 5 GHz WLAN Ant 2	0.389	0.080	0.469	7.28	0.04	
Reduced 5 GHz WLAN Ant 2	LTE Band 66 (AWS) Ant 2	0.080	0.960	1.04	145.22	0.01	
Reduced 5 GHz WLAN Ant 2	NR Band n71	0.080	0.244	0.324	132.35	0.00	
Reduced 5 GHz WLAN Ant 1	LTE Band 25 (PCS)	0.389	0.818	1.207	152.16	0.01	11
Reduced 5 GHz WLAN Ant 1	NR Band n66 Ant 3	0.389	0.466	0.855	116.63	0.01	
LTE Band 25 (PCS)	NR Band n66 Ant 3	0.818	0.466	1.284	91.30	0.02	
Bluetooth	Reduced 5 GHz WLAN Ant 1	0.027	0.389	0.416	14.70	0.02	
Bluetooth	LTE Band 25 (PCS)	0.027	0.818	0.845	164.90	0.00	
Bluetooth	NR Band n66 Ant 3	0.027	0.466	0.493	122.88	0.00	
Bluetooth	Reduced 5 GHz WLAN Ant 2	0.027	0.080	0.107	10.27	0.00	
Reduced 5 GHz WLAN Ant 1	Reduced 5 GHz WLAN Ant 2	0.389	0.080	0.469	7.28	0.04	
Reduced 5 GHz WLAN Ant 2	LTE Band 25 (PCS)	0.080	0.818	0.898	154.64	0.01	
Reduced 5 GHz WLAN Ant 2	NR Band n66 Ant 3	0.080	0.466	0.546	114.56	0.00	
Reduced 5 GHz WLAN Ant 1	LTE Band 66 (AWS) Ant 2	0.389	0.960	1.349	143.78	0.01	12
Reduced 5 GHz WLAN Ant 1	NR Band n41	0.389	0.251	0.64	67.80	0.01	
LTE Band 66 (AWS) Ant 2	NR Band n41	0.960	0.251	1.211	122.37	0.01	
Bluetooth	Reduced 5 GHz WLAN Ant 1	0.027	0.389	0.416	14.70	0.02	
Bluetooth	LTE Band 66 (AWS) Ant 2	0.027	0.960	0.987	155.35	0.01	
Bluetooth	NR Band n41	0.027	0.251	0.278	67.34	0.00	
Bluetooth	Reduced 5 GHz WLAN Ant 2	0.027	0.080	0.107	10.27	0.00	
Reduced 5 GHz WLAN Ant 1	Reduced 5 GHz WLAN Ant 2	0.389	0.080	0.469	7.28	0.04	
Reduced 5 GHz WLAN Ant 2	LTE Band 66 (AWS) Ant 2	0.080	0.960	1.04	145.22	0.01	
Reduced 5 GHz WLAN Ant 2	NR Band n41	0.080	0.251	0.331	62.57	0.00	

Table 12-23
Body-Worn Back Side SAR to Peak Location Separation Ratio Plots



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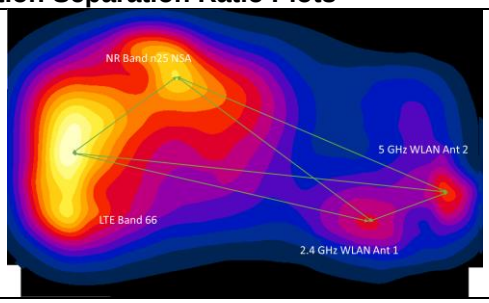

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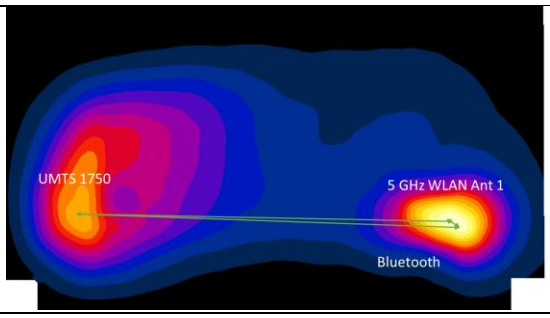

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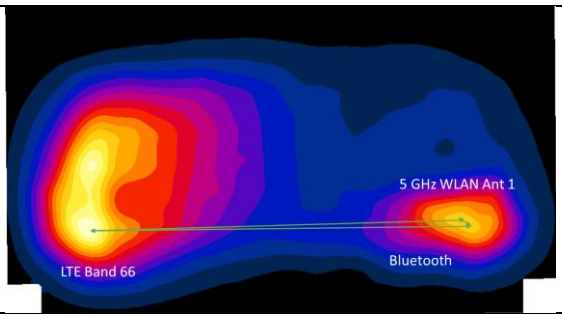

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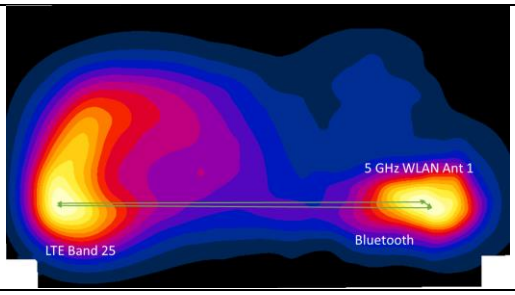

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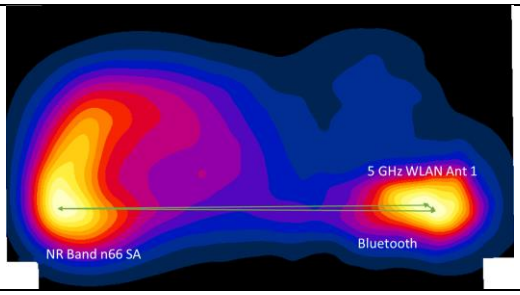

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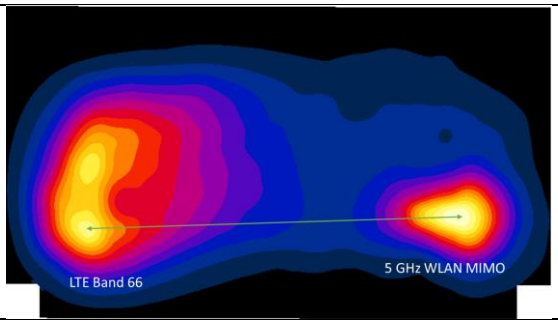

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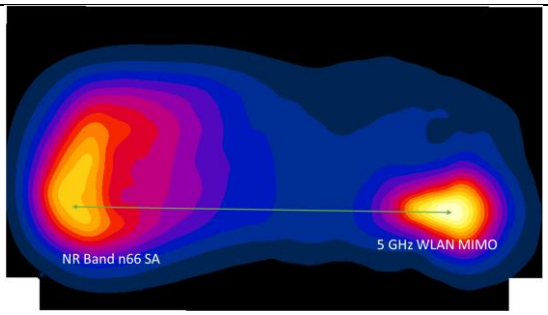

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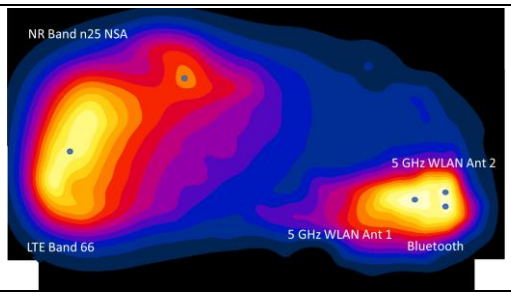

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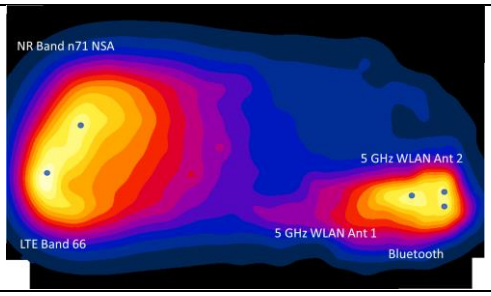

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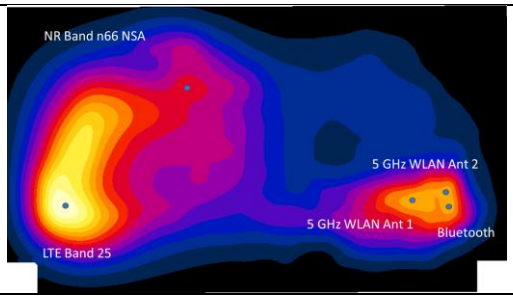

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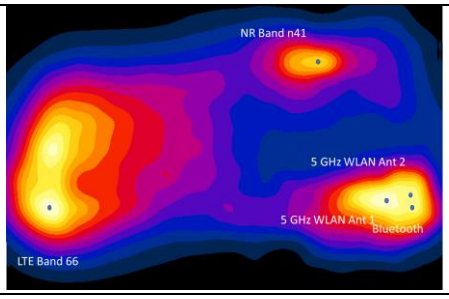

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12.7.2 Hotspot Back Side SPLSR Evaluation and Analysis

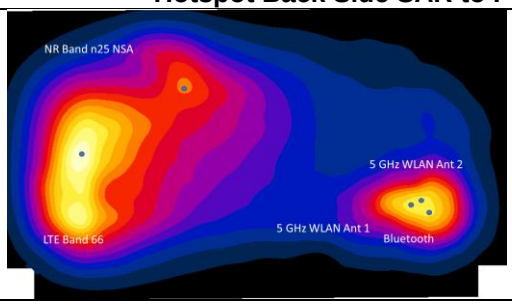
Table 12-24
Peak SAR Locations for Hotspot Back Side

Mode/Band	x (mm)	y (mm)	Reported SAR (W/kg)
Max 5 GHz WLAN Ant 1	-4.00	65.00	0.763
Max 5 GHz WLAN MIMO	-3.00	67.00	0.774
Bluetooth	-8.20	80.20	0.027
Reduced 5 GHz WLAN Ant 1	0.00	68.00	0.389
Reduced 5 GHz WLAN Ant 2	-7.00	70.00	0.080
NR Band n25 NSA	-59.00	-33.00	0.353
LTE Band 66 (AWS)	-15.50	-83.00	0.759
NR Band n66 SA	-22.00	-81.00	0.902

Table 12-25
Hotspot Back Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
Reduced 5 GHz WLAN Ant 1	LTE Band 66 (AWS)	0.389	0.759	1.148	151.79	0.01	1
Reduced 5 GHz WLAN Ant 1	NR Band n25 NSA	0.389	0.353	0.742	116.97	0.01	
Reduced 5 GHz WLAN Ant 1	Bluetooth	0.389	0.027	0.416	14.70	0.02	
Reduced 5 GHz WLAN Ant 1	Reduced 5 GHz WLAN Ant 2	0.389	0.080	0.469	7.28	0.04	
Reduced 5 GHz WLAN Ant 2	LTE Band 66 (AWS)	0.080	0.759	0.839	153.24	0.01	
Reduced 5 GHz WLAN Ant 2	NR Band n25 NSA	0.080	0.353	0.433	115.38	0.00	
Reduced 5 GHz WLAN Ant 2	Bluetooth	0.080	0.027	0.107	10.27	0.00	
Bluetooth	NR Band n25 NSA	0.027	0.353	0.38	124.08	0.00	
Bluetooth	LTE Band 66 (AWS)	0.027	0.759	0.786	163.36	0.00	
NR Band n25 NSA	LTE Band 66 (AWS)	0.353	0.759	1.112	66.27	0.02	
Max 5 GHz WLAN Ant 1	NR Band n66 SA	0.763	0.902	1.665	147.11	0.01	2
Bluetooth	NR Band n66 SA	0.027	0.902	0.929	161.79	0.01	
Max 5 GHz WLAN Ant 1	Bluetooth	0.763	0.027	0.79	15.77	0.04	
Max 5 GHz WLAN MIMO	NR Band n66 SA	0.774	0.902	1.676	149.21	0.01	3

Table 12-26
Hotspot Back Side SAR to Peak Location Separation Ratio Plots



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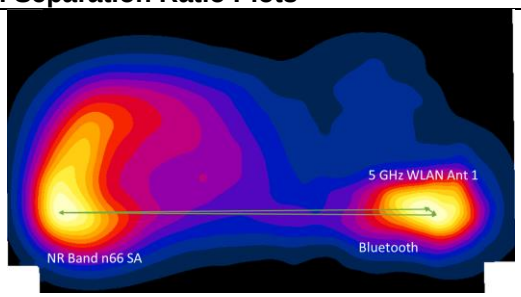

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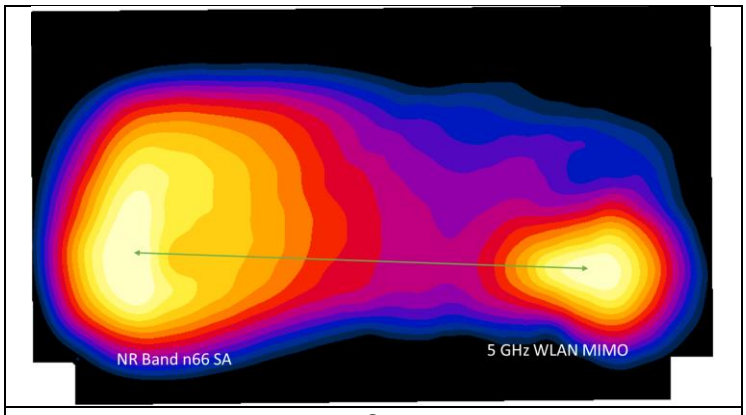

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12.7.3 Phablet Back Side SPLSR Evaluation and Analysis

Table 12-27
Peak SAR Locations for Phablet Back Side

Mode/Band	x (mm)	y (mm)	Reported SAR (W/kg)
5 GHz WLAN Ant 1	-1.00	65.00	1.210
5 GHz WLAN Ant 2	-6.00	71.00	0.719
Maximum 5 GHz WLAN MIMO	-5.00	69.00	1.681
Reduced 5 GHz WLAN MIMO	-5.00	70.00	1.029
PCS CDMA	2.00	-84.50	2.810
UMTS 1750	-7.90	-80.00	2.619
UMTS 1900	-0.50	-81.50	2.433
NR Band n66 SA	-7.90	-81.50	3.052
NR Band n25 SA	-6.00	-83.00	2.495
NR Band n25 NSA	-59.00	-40.00	1.573
LTE Band 66 (AWS)	-17.10	-75.40	2.653
LTE Band 25 (PCS)	-6.00	-84.50	1.986
NR Band n66 NSA	-65.50	-42.00	1.423

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Table 12-28
Phablet Back Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
PCS CDMA	5 GHz WLAN Ant 1	2.810	1.210	4.02	149.53	0.05	1
Maximum 5 GHz WLAN MIMO	PCS CDMA	1.681	2.810	4.491	153.66	0.06	2
Maximum 5 GHz WLAN MIMO	UMTS 1750	1.681	2.619	4.3	149.03	0.06	3
Maximum 5 GHz WLAN MIMO	UMTS 1900	1.681	2.433	4.114	150.57	0.06	4
Maximum 5 GHz WLAN MIMO	LTE Band 66 (AWS)	1.681	2.653	4.334	144.91	0.06	5
5 GHz WLAN Ant 1	NR Band n66 SA	1.210	3.052	4.262	146.66	0.06	6
Maximum 5 GHz WLAN MIMO	NR Band n66 SA	1.681	3.052	4.733	150.53	0.07	7
Maximum 5 GHz WLAN MIMO	NR Band n25 SA	1.681	2.495	4.176	152.00	0.06	8
NR Band n66 NSA	LTE Band 25 (PCS)	1.423	1.986	3.409	73.12	0.09	9
NR Band n66 NSA	5 GHz WLAN Ant 1	1.423	1.210	2.633	124.94	0.03	
5 GHz WLAN Ant 1	LTE Band 25 (PCS)	1.210	1.986	3.196	149.58	0.04	
5 GHz WLAN Ant 2	LTE Band 25 (PCS)	0.719	1.986	2.705	155.50	0.03	
5 GHz WLAN Ant 2	NR Band n66 NSA	0.719	1.423	2.142	127.71	0.02	
Reduced 5 GHz WLAN MIMO	LTE Band 25 (PCS)	1.029	1.986	3.015	154.50	0.03	10
Reduced 5 GHz WLAN MIMO	NR Band n66 NSA	1.029	1.423	2.452	127.30	0.03	
NR Band n66 NSA	LTE Band 25 (PCS)	1.423	1.986	3.409	73.12	0.09	

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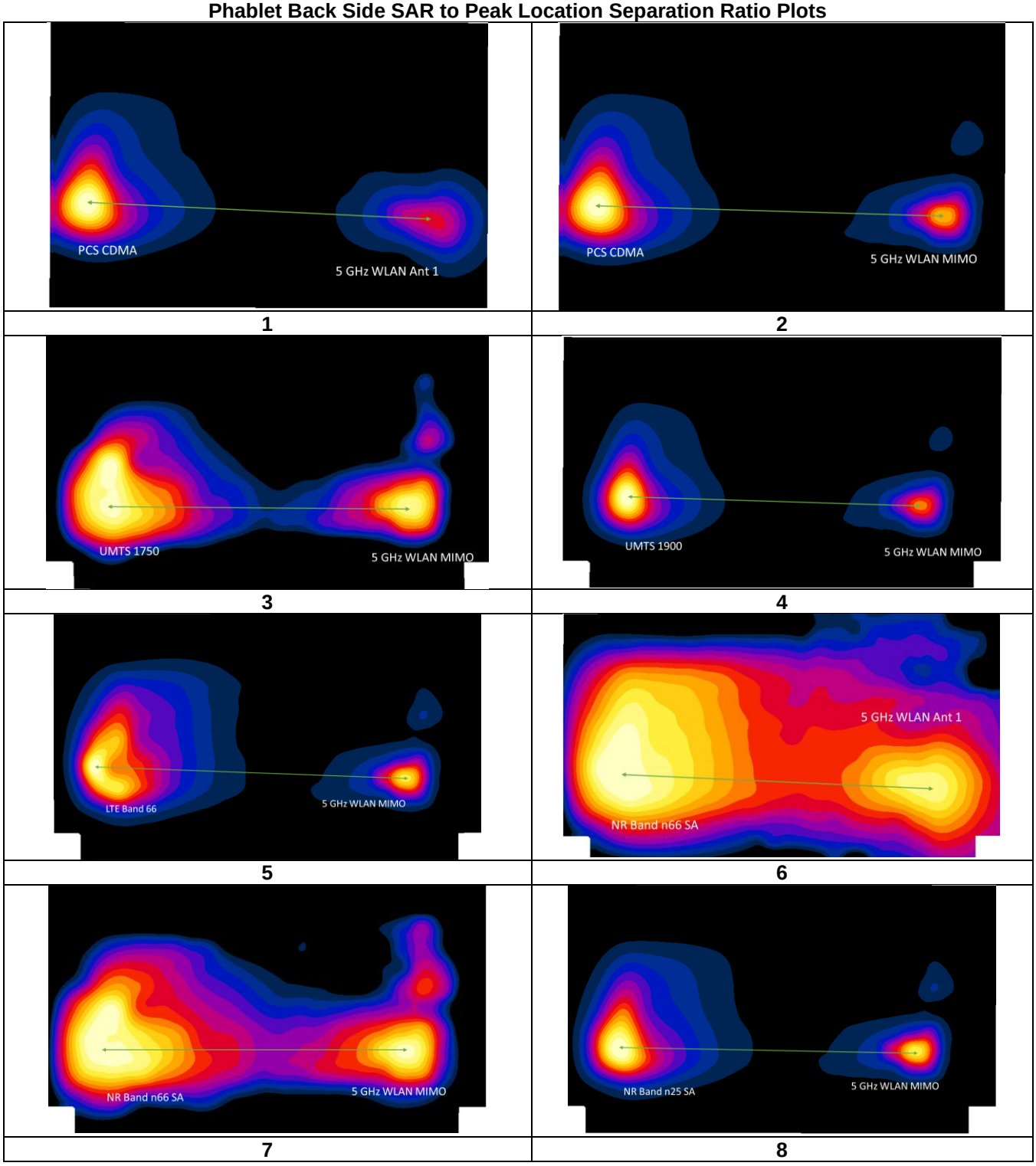
Table 12-29
Phablet Back Side SAR to Peak Location Separation Ratio Plots



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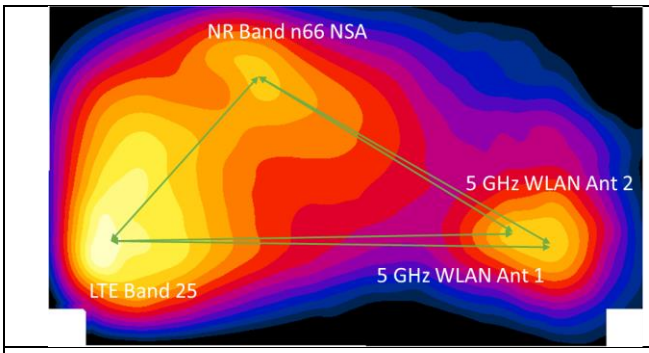

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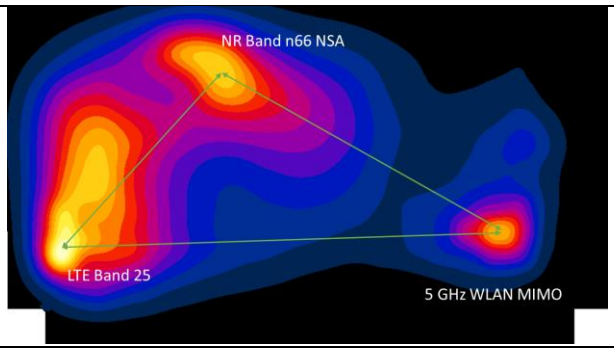

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12.7.4 Phablet Front Side SPLSR Evaluation and Analysis

Table 12-30
Peak SAR Locations for Phablet Front Side

Mode/Band	x (mm)	y (mm)	Reported SAR (W/kg)
5 GHz WLAN Ant 2	-63.00	77.00	0.544
Reduced 5 GHz WLAN MIMO	-62.00	76.00	0.446
LTE Band 66 (AWS)	-49.00	-82.50	2.211
NR Band n25 NSA	25.00	-40.00	1.378

Table 12-31
Phablet Front Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
NR Band n25 NSA	LTE Band 66 (AWS)	1.378	2.211	3.589	85.34	0.08	1
5 GHz WLAN Ant 2	NR Band n25 NSA	0.544	1.378	1.922	146.40	0.02	
5 GHz WLAN Ant 2	LTE Band 66 (AWS)	0.544	2.211	2.755	160.11	0.03	
Reduced 5 GHz WLAN MIMO	NR Band n25 NSA	0.446	1.378	1.824	145.00	0.02	2
Reduced 5 GHz WLAN MIMO	LTE Band 66 (AWS)	0.446	2.211	2.657	159.03	0.03	
NR Band n25 NSA	LTE Band 66 (AWS)	1.378	2.211	3.589	85.34	0.08	

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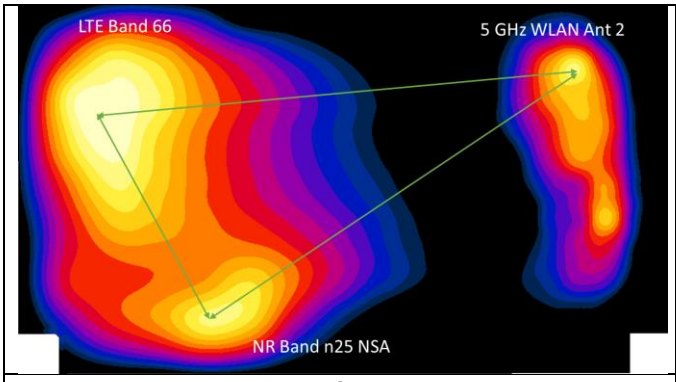
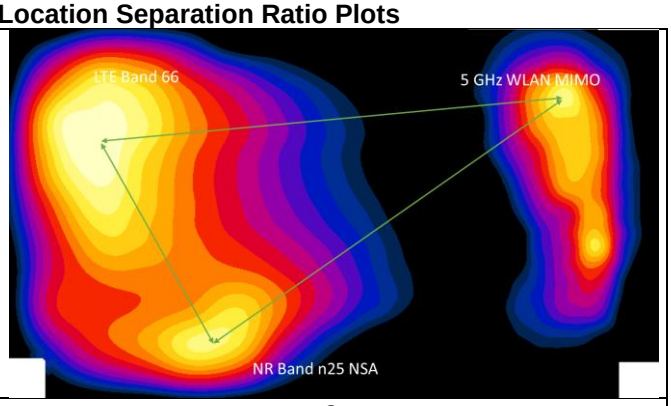
Table 12-32
Phablet Front Side SAR to Peak Location Separation Ratio Plots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12.8 Additional Simultaneous SAR Evaluation and Analysis for Main Band, Bluetooth, and 5 GHz WLAN Operations

Per KDB Publication 865664, when the sum of the transmitters potentially operating simultaneously is greater than the 1.6 W/kg and the sum to peak SAR location separation ratio between any pair of transmitters is more than 0.04 for 1g or 0.10 for 10g, SAR tests are required for simultaneous transmission to determine the aggregate 1g SAR. When required, each transmitter is tested for simultaneous transmission in the configuration, channel, and operating mode that resulted in the highest SAR during the stand-alone evaluation. The Bluetooth and 5GHz WLAN transmitters are co-located antenna pair and spatially separated from 2G/3G/4G/5G antenna. Per November 2019 TCB Workshop Notes, enlarged volumetric scans on co-located antenna pair were performed for the Bluetooth and 5GHz WLAN. The SPLSR procedure for the spatially separated 2G/3G/4G/5G antenna and aggregated SAR distribution of the co-located Bluetooth/5GHz WLAN antenna pair was applied according to KDB Publication 447498.

12.8.1 Body-worn and Hotspot Back Side Volumetric SAR Evaluation and Analysis for Bluetooth, and 5 GHz WLAN Simultaneous Transmission

Table 12-33
Simultaneous Transmission SAR Analysis

Band/Mode	Configuration	Frequency [MHz]	Measured Standalone 1g SAR [W/kg]	Conducted Power [dBm]	Maximum Allowed Power [dBm]	Duty Cycle [%]	Scaling Factor (Cond Power)	Scaling Factor (Duty Cycle)	Volumetric 1g SAR [W/kg]	Scaled Volumetric 1g SAR [W/kg]	Volumetric SAR Plot Number
5 GHz WLAN MIMO	Back Side, IEEE 802.11n, 20 MHz , Ch. 157, 13 Mbps, 10mm	5785	0.600	21.91	22.9	97.6	1.259	1.025	0.584	0.754	A73
Bluetooth	Back Side, Ch. 39, 1 Mbps, 10mm	2441	0.018	10.38	11	77.1	1.153	1.297	0.0184	0.027	A74

Simultaneous Transmission Bands/Modes		Scaled Multi-Band SAR (W/kg)	Simultaneous SAR Plot Number
5 GHz WLAN	Bluetooth	0.758	A75

Note:
1. All volumetric zoom scans were performed with DASY52 SAR system version 52.10. Post processor SEMCAD X Versions 14.6.14 (7483) multiband combiner requires enlarged zoom scans to overlap but does not require measurement point resolutions within the volumes to be identical for interpolation and superposition.

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2. Each antenna was evaluated independently using the channel/configuration that produced the highest measured SAR when the standalone SAR was tested.
3. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v05. The simultaneous transmission SAR results of the individual transmitters were scaled using SEMCAD X during processing.
4. The Bluetooth and 5 GHz WIFI SAR values above represent the aggregate distributions from the simultaneous transmission (volumetric) SAR evaluation.

12.8.1 Body-worn SPLSR Evaluation and Analysis for Main Band, Bluetooth and 5 GHz WLAN Simultaneous Transmission

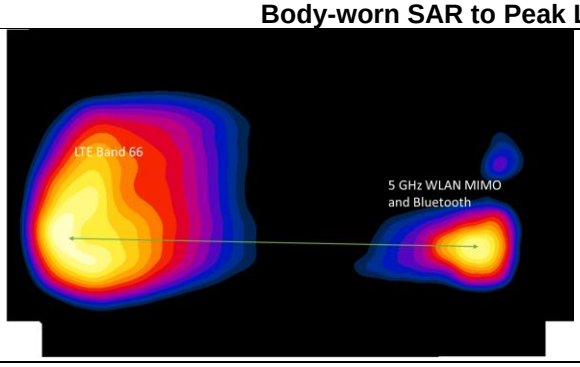
Table 12-34
Peak SAR Locations for Body-worn Back Side

Mode/Band	x (mm)	y (mm)	Reported SAR (W/kg)
Bluetooth and 5 GHz WLAN MIMO	-1.00	66.00	0.758
LTE Band 66 (AWS)	-15.00	-75.00	0.960
LTE Band 25 (PCS)	7.00	-84.00	0.818
NR Band n66 SA	-10.00	-85.50	0.946
UMTS 1750	-9.00	-83.00	0.807

Table 12-35
Body-worn SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
Bluetooth and 5 GHz WLAN MIMO	LTE Band 66 (AWS)	0.758	0.960	1.718	141.69	0.02	1
Bluetooth and 5 GHz WLAN MIMO	LTE Band 25 (PCS)	0.758	0.818	1.576	150.21	0.01	2
Bluetooth and 5 GHz WLAN MIMO	NR Band n66 SA	0.758	0.946	1.704	151.77	0.01	3
Bluetooth and 5 GHz WLAN MIMO	UMTS 1750	0.758	0.807	1.565	149.21	0.01	4

Table 12-36
Body-worn SAR to Peak Location Separation Ratio Plots



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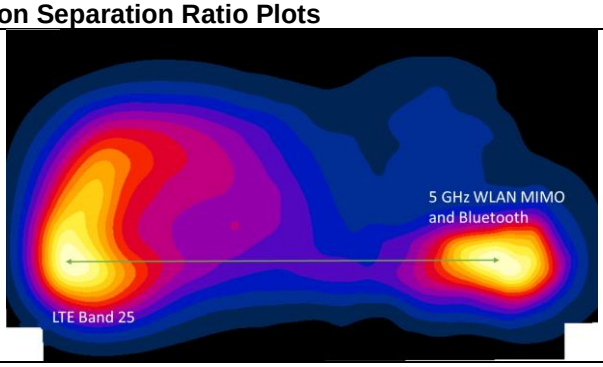

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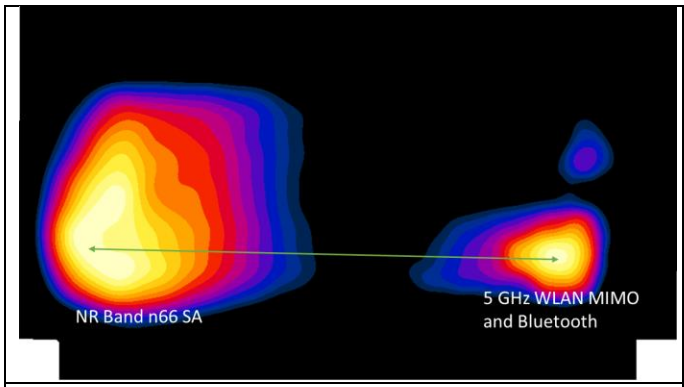

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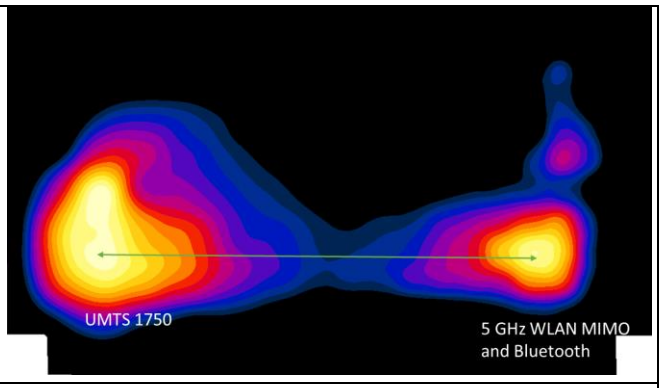

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12.8.2 Hotspot SPLSR Evaluation and Analysis for Main Band, Bluetooth and 5 GHz WLAN Simultaneous Transmission

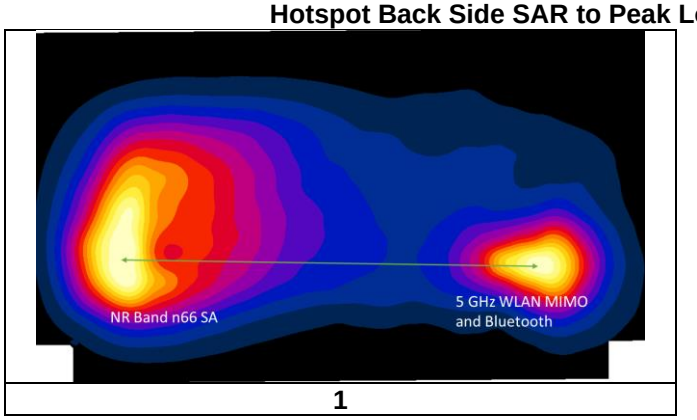
Table 12-37
Peak SAR Locations for Hotspot Back Side

Mode/Band	x (mm)	y (mm)	z (mm)	Reported SAR (W/kg)
Bluetooth and 5 GHz WLAN MIMO	-1.00	66.00	0.00	0.758
NR Band n66 SA	-22.00	-81.00	0.00	0.902

Table 12-38
Hotspot Back Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
Bluetooth and 5 GHz WLAN MIMO	NR Band n66 SA	0.758	0.902	1.66	148.49	0.01	1

Table 12-39
Hotspot Back Side SAR to Peak Location Separation Ratio Plots



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12.8.3 Phablet Back Side Volumetric SAR Evaluation and Analysis for LTE and NR Simultaneous Transmission

Table 12-40
Simultaneous Transmission SAR Analysis

Band/Mode	Configuration	Frequency [MHz]	Measured Standalone 10g SAR [W/kg]	Conducted Power [dBm]	Maximum Allowed Power [dBm]	Scaling Factor (Cond Power)	Volumetric 10g SAR [W/kg]	Scaled Volumetric 10g SAR [W/kg]	Volumetric SAR Plot Number
LTE Band 66 (AWS)	Back Side, Dual Display Position #1, QPSK, 1 RB, 50 RB Offset, 20 Mhz, Ch. 132572, 0mm	1770.00	2.640	25.18	25.2	1.005	2.68	2.693	A76
NR Band n25 NSA	Back Side, DFT-s-OFDM, 108 RB, 54 RB Offset, 40 MHz, Ch. 376500, 2mm	1882.50	1.53	25.58	25.7	1.028	1.45	1.491	A77

Simultaneous Transmission Bands/Modes		Scaled Multi-Band SAR (W/kg)	Simultaneous SAR Plot Number
LTE Band 66 (AWS)	NR Band n25 NSA	2.83	A78

Note:
1. All volumetric zoom scans were performed with DASY52 SAR system version 52.10. Post processor SEMCAD X Versions 14.6.14 (7483) multiband combiner requires enlarged zoom scans to overlap but does not require measurement point resolutions within the volumes to be identical for interpolation and superposition.
2. Each antenna was evaluated independently using the channel/configuration that produced the highest measured SAR when the standalone SAR was tested.
3. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v05. The simultaneous transmission SAR results of the individual transmitters were scaled using SEMCAD X during processing.
4. The LTE and NR SAR values above represent the aggregate distributions from the simultaneous transmission (volumetric) SAR evaluation.

12.8.4 Phablet SPLSR Evaluation and Analysis for LTE, NR, and 5 GHz WLAN Simultaneous Transmission

Table 12-41
Peak SAR Locations for Phablet Back Side

Mode/Band	x (mm)	y (mm)	Reported SAR (W/kg)
LTE Band 66 and NR Band n25	-21.00	-74.50	2.830
5 GHz WLAN Ant 1	-1.00	65.00	1.210
5 GHz WLAN Ant 2	-6.00	71.00	0.719
Reduced 5 GHz WLAN MIMO	-5.00	70.00	1.029

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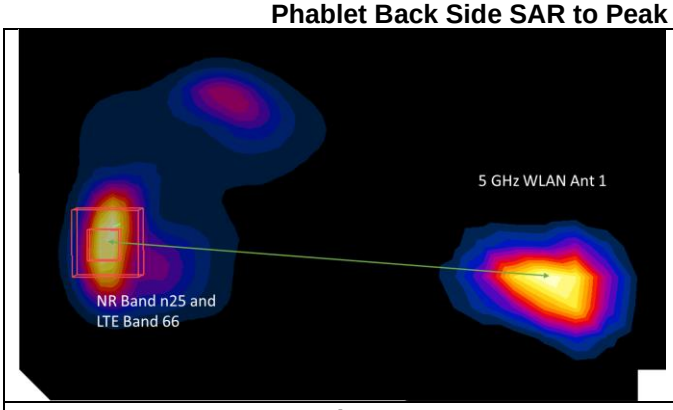
Table 12-42
Phablet Back Side SAR to Peak Location Separation Ratio Calculations

Antenna Pair		Standalone SAR (W/kg)		Standalone SAR Sum (W/kg)	Peak SAR Separation Distance (mm)	SPLS Ratio	Plot Number
Ant "a"	Ant "b"	a	b	a+b	D_{a-b}	$(a+b)^{1.5}/D_{a-b}$	
LTE Band 66 and NR Band n25	5 GHz WLAN Ant 1	2.830	1.210	4.04	140.93	0.06	1
LTE Band 66 and NR Band n25	5 GHz WLAN Ant 2	2.830	0.719	3.549	146.27	0.05	2
LTE Band 66 and NR Band n25	Reduced 5 GHz WLAN MIMO	2.830	1.029	3.859	145.38	0.05	3

Table 12-43
Phablet Back Side SAR to Peak Location Separation Ratio Plots



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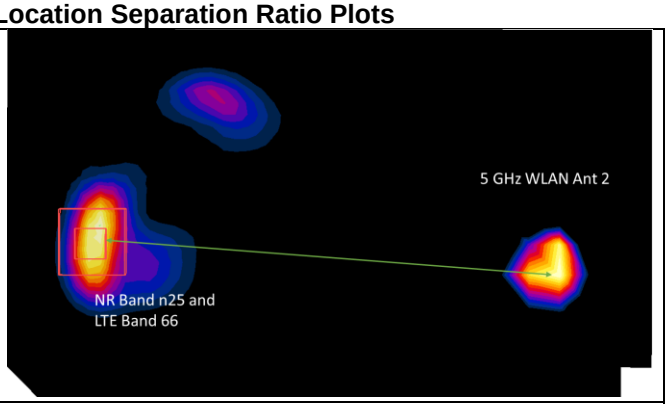

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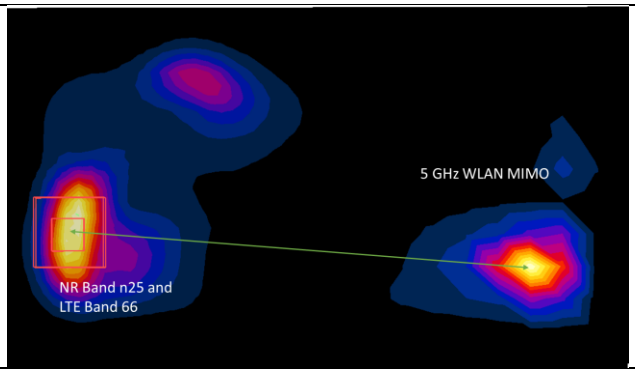

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12.9 Simultaneous Transmission Conclusion

The above analysis for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit per FCC KDB Publication 447498 D01v06 and IEEE 1528-2013 Section 6.3.4.1.2.

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13 SAR MEASUREMENT VARIABILITY

13.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1) When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2) A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1g SAR limit).
3) A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4) Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5) When 10g SAR measurement is considered, a factor of 2.5 is applied to the thresholds above.

Table 13-1
Body SAR Measurement Variability Results

BODY VARIABILITY RESULTS													
Band	FREQUENCY		Mode	Service	Side	Spacing	Measured SAR (1g)	1st Repeated SAR (1g)	Ratio	2nd Repeated SAR (1g)	Ratio	3rd Repeated SAR (1g)	Ratio
	MHz	Ch.					(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1750	1745.00	34900	NR Band n66 (AWS), 40 MHz Bandwidth	DFT-s-OFDM, QPSK, 1 RB, 108 RB Offset	front	10 mm	1.050	0.958	1.10	N/A	N/A	N/A	N/A
1900	1882.50	26365	LTE Band 25 (PCS), 20 MHz Bandwidth	QPSK, 50 RB, 50 RB Offset	bottom	10 mm	0.877	0.789	1.11	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population							Body 1.6 W/kg (mW/g) averaged over 1 gram						

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Table 13-2
Phablet SAR Measurement Variability Results

PHABLET VARIABILITY RESULTS													
Band	FREQUENCY		Mode	Service	Side	Spacing	Measured SAR (10g)	1st Repeated SAR (10g)	Ratio	2nd Repeated SAR (10g)	Ratio	3rd Repeated SAR (10g)	Ratio
	MHz	Ch.					(W/kg)	(W/kg)		(W/kg)		(W/kg)	
1750	1745.00	349000	NR Band n66 (AWS), 40 MHz Bandwidth, Dual Display Position #1	DFT-S-OFDM, 1 RB, 108 RB Offset	back	0 mm	3.010	2.920	1.03	N/A	N/A	N/A	N/A
1900	1908.75	1175	PCS CDMA, Dual Display Position #1	EVDO Rev. 0,	bottom	0 mm	2.770	2.720	1.02	N/A	N/A	N/A	N/A
2450	2506.00	39750	LTE Band 41 PC3, 20 MHz Bandwidth	QPSK, 50 RB, 25 RB Offset	bottom	0 mm	2.140	1.950	1.10	N/A	N/A	N/A	N/A
2600	2636.50	41055	LTE Band 41 PC2, 20 MHz Bandwidth	QPSK, 50 RB, 25 RB Offset	bottom	0 mm	2.340	2.270	1.03	N/A	N/A	N/A	N/A
ANSI / IEEE C95.1 1992 - SAFETY LIMIT **Spatial Peak** **Uncontrolled Exposure/General Population**							**Phablet** **4.0 W/kg (mW/g)** averaged over 10 grams						

13.2 Measurement Uncertainty

The measured SAR was <1.5 W/kg for 1g and <3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

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14 ADDITIONAL TESTING PER FCC GUIDANCE

14.1 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device supports Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operations is 43.3 % using UL-DL configuration 1. Per May 2017 TCB Workshop Notes based on the device behavior, all SAR tests were performed using Power Class 3. SAR with Power Class 2 at the highest power and available duty factor was additionally performed for the Power Class 3 configuration with the highest SAR for each exposure condition. The linearity between the Power Class 2 and Power Class 3 SAR results and the respective frame averaged powers was calculated to determine that the results were linear. When ULCA is active, the linearity between the Power Class 2 with ULCA active and Power Class 3 with ULCA active SAR results and the respective frame averaged powers was calculated to determine that the results were linear. Per May 2017 TCB Workshop, no additional SAR measurements were required since the linearity between power classes was < 10% and all reported SAR values were < 1.4 W/kg for 1g and < 3.5 W/kg for 10g.

Table 14-1
LTE Band 41 Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.2	27.7
Measured Output Power (dBm)	25.01	26.91
Measured SAR (W/kg)	0.078	0.078
Measured Power (mW)	316.96	490.91
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	200.63	212.56
% deviation from expected linearity		-5.73%

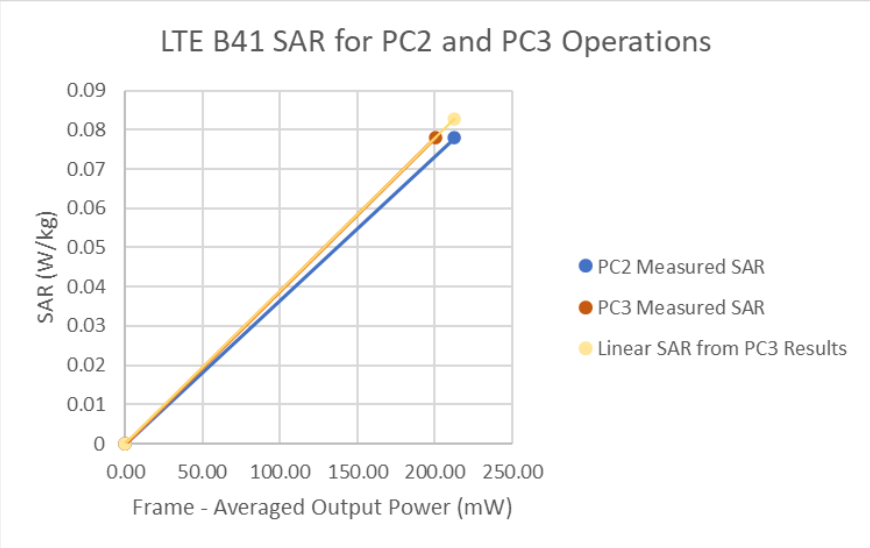

Figure 14-1
LTE Band 41 Head Linearity

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Table 14-2
LTE Band 41 ULCA Head Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.2	27.7
Measured Output Power (dBm)	24.15	26.11
Measured SAR (W/kg)	0.066	0.067
Measured Power (mW)	260.02	408.32
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	164.59	176.80
% deviation from expected linearity		-4.79%

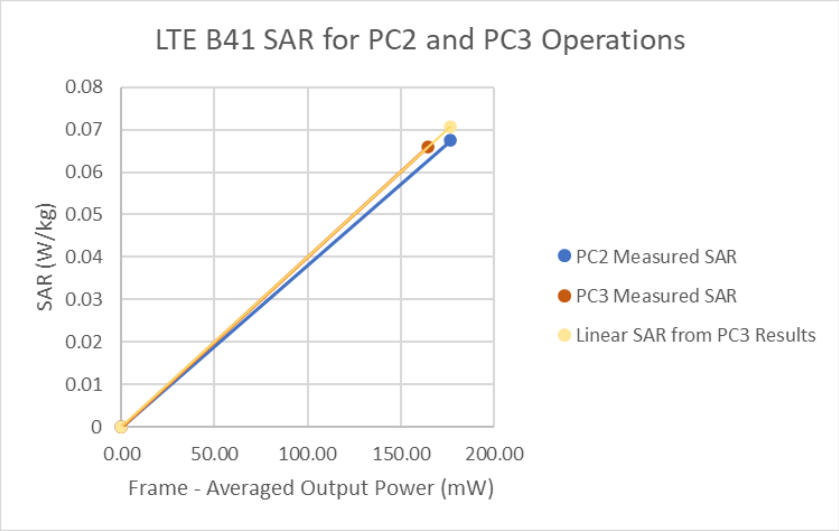

Figure 14-2
LTE Band 41 ULCA Head Linearity

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Table 14-3
LTE Band 41 Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.2	27.7
Measured Output Power (dBm)	25.01	26.91
Measured SAR (W/kg)	0.444	0.444
Measured Power (mW)	316.96	490.91
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	200.63	212.56
% deviation from expected linearity		-5.61%

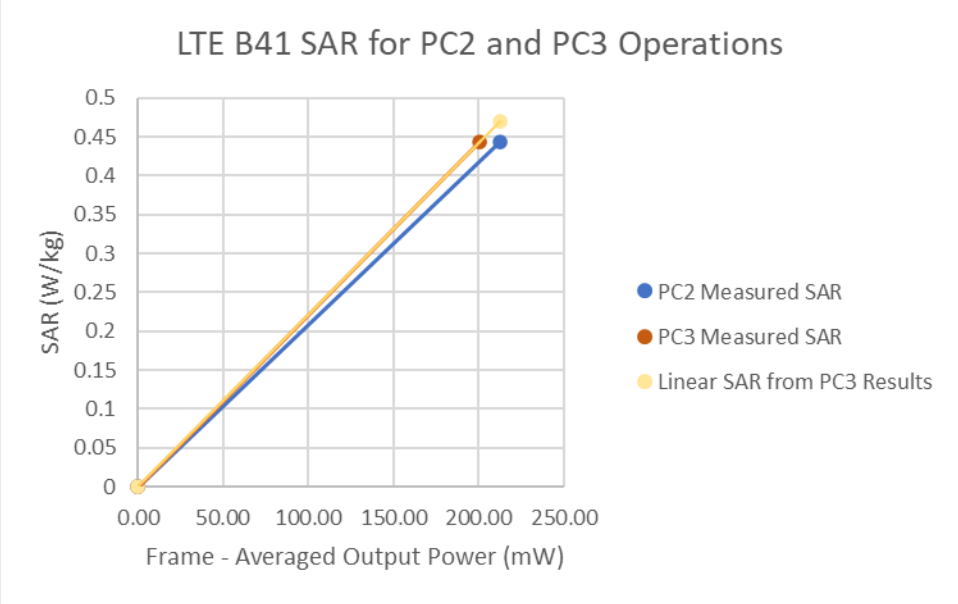

Figure 14-3
LTE Band 41 Body-Worn Linearity

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Table 14-4
LTE Band 41 ULCA Body-Worn Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	25.2	27.7
Measured Output Power (dBm)	24.15	26.11
Measured SAR (W/kg)	0.38	0.38
Measured Power (mW)	260.02	408.32
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	164.59	176.80
% deviation from expected linearity		-6.91%

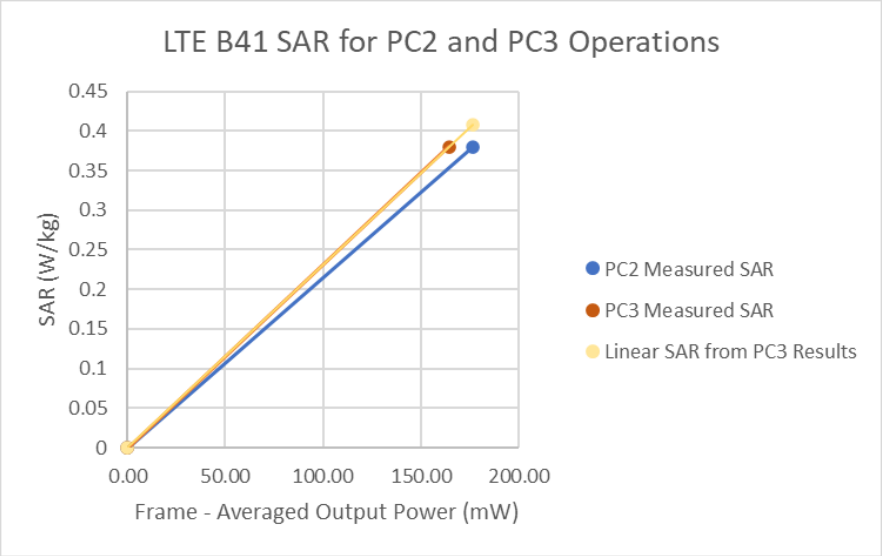

Figure 14-4
LTE Band 41 ULCA Body-Worn Linearity

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Table 14-5
LTE Band 41 Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24.2	26.7
Measured Output Power (dBm)	23.86	25.96
Measured SAR (W/kg)	0.744	0.743
Measured Power (mW)	243.22	394.46
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	153.96	170.80
% deviation from expected linearity		-9.98%

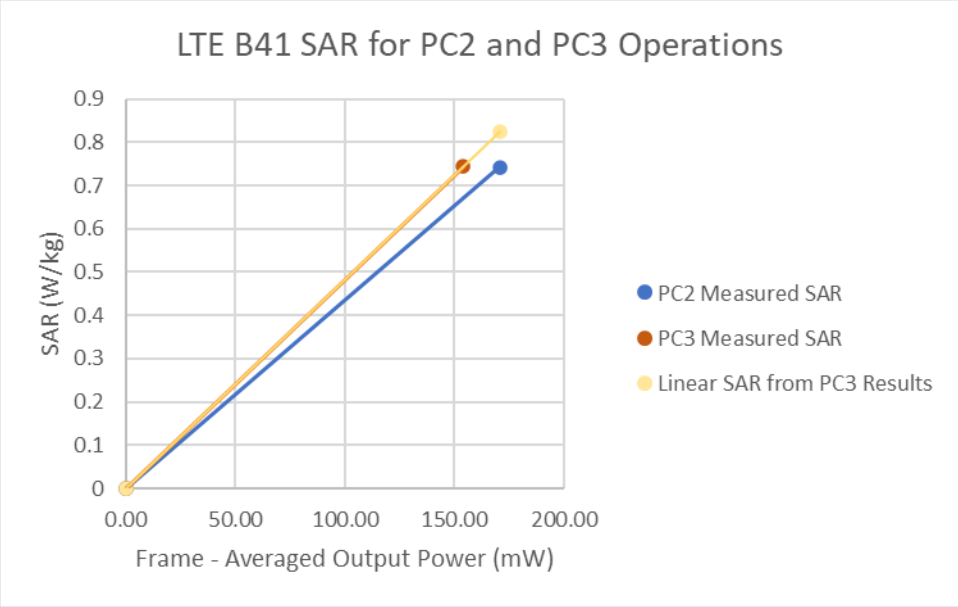

Figure 14-5
LTE Band 41 Hotspot Linearity

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Table 14-6
LTE Band 41 ULCA Hotspot Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24.2	26.7
Measured Output Power (dBm)	23.27	25.4
Measured SAR (W/kg)	0.621	0.635
Measured Power (mW)	212.32	346.74
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	134.40	150.14
% deviation from expected linearity		-8.46%

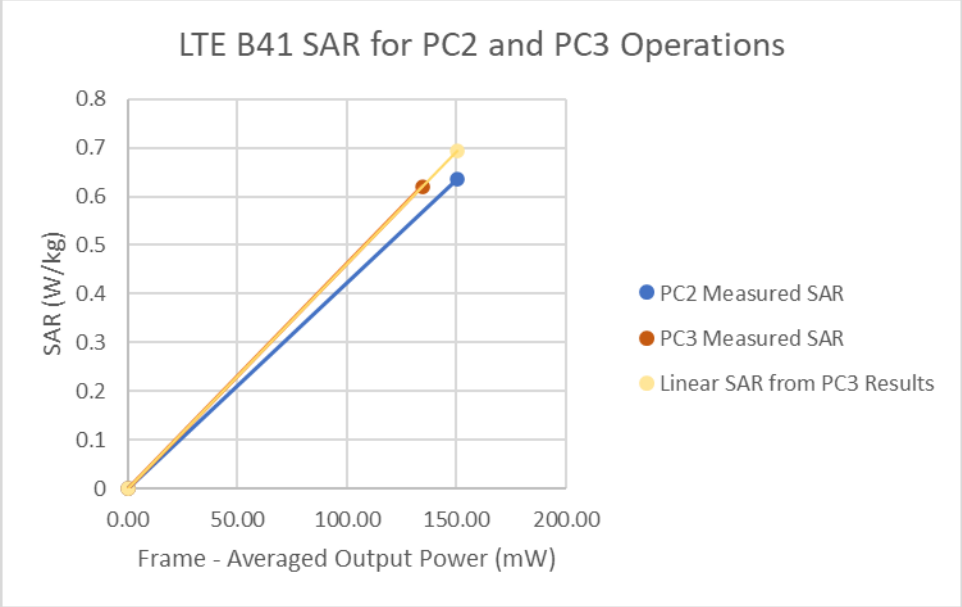

Figure 14-6
LTE Band 41 ULCA Hotspot Linearity

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Table 14-7
LTE Band 41 Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24.2	26.7
Measured Output Power (dBm)	23.96	25.97
Measured SAR (W/kg)	2.27	2.23
Measured Power (mW)	248.89	395.37
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	157.54	171.19
% deviation from expected linearity		-9.59%

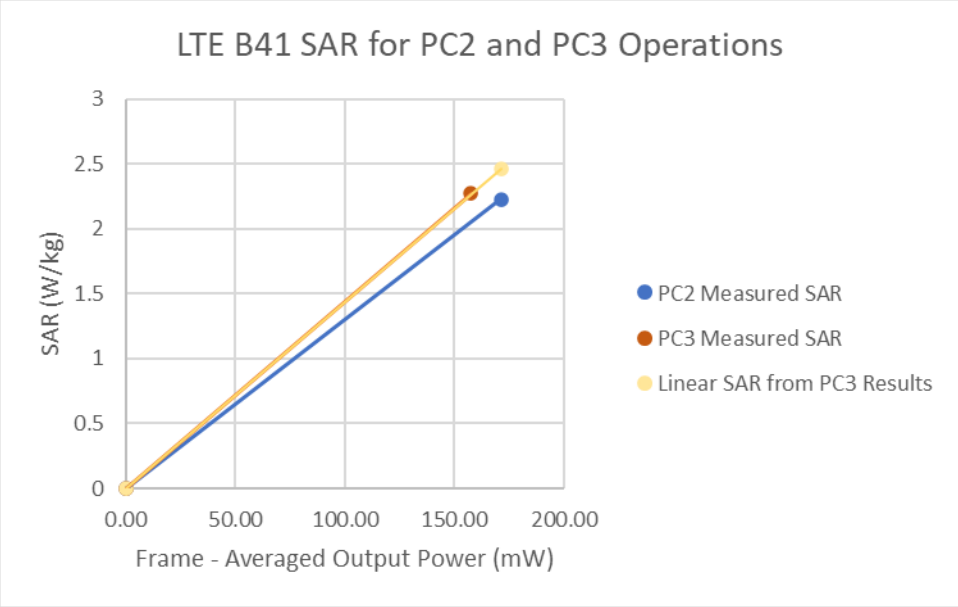

Figure 14-7
LTE Band 41 Phablet Linearity

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Table 14-8
LTE Band 41 ULCA Phablet Linearity Data

	LTE Band 41 PC3	LTE Band 41 PC2
Maximum Allowed Output Power (dBm)	24.2	26.7
Measured Output Power (dBm)	23.12	25.1
Measured SAR (W/kg)	1.78	1.84
Measured Power (mW)	205.12	323.59
Duty Cycle	63.3%	43.3%
Frame Averaged Output Power (mW)	129.84	140.12
% deviation from expected linearity		-4.21%

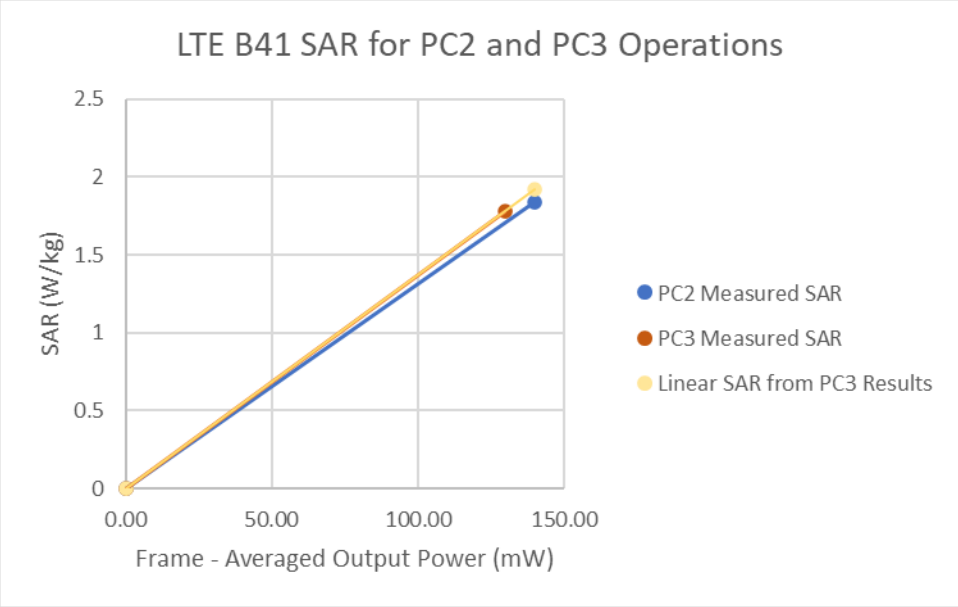

Figure 14-8
LTE ULCA Phablet Linearity

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15 EQUIPMENT LIST

Manufacturer	Model	Description	Cal Date	Cal Interval	Cal Due	Serial Number
Agilent	85033E	3.5mm Standard Calibration Kit	6/6/2020	Annual	6/6/2021	MY53402352
Agilent	8594A	(9kHz-2.9GHz) Spectrum Analyzer	N/A	N/A	N/A	3051A00187
Agilent	8753ES	Network Analyzer	3/5/2020	Annual	3/5/2021	MY40001472
Keysight Technologies	N9030A	PXA Signal Analyzer	9/13/2019	Annual	9/13/2020	MY54490576
Agilent	8753ES	S-Parameter Network Analyzer	8/26/2019	Annual	8/26/2020	MY40000670
Agilent	8753ES	S-Parameter Vector Network Analyzer	9/19/2019	Annual	9/19/2020	MY40003841
Agilent	E4438C	ESG Vector Signal Generator	3/11/2019	Biennial	3/11/2021	MY45090700
Agilent	E5515C	8960 Series 10 Wireless Communications Test Set	2/10/2020	Annual	2/10/2021	GB42230325
Agilent	E5515C	Wireless Communications Test Set	3/29/2018	Triennial	3/29/2021	GB43163447
Agilent	N4010A	Wireless Connectivity Test Set	N/A	N/A	N/A	GB46170464
Agilent	N5182A	MXG Vector Signal Generator	2/19/2020	Annual	2/19/2021	MY47420651
Agilent	N5182A	MXG Vector Signal Generator	5/13/2020	Annual	5/13/2021	MY47420603
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	353468
Amplifier Research	15S1G6	Amplifier	CBT	N/A	CBT	353469
Anritsu	MA24106A	USB Power Sensor	8/5/2019	Annual	8/5/2020	1827527
Anritsu	MA24106A	USB Power Sensor	10/10/2019	Annual	10/10/2020	1344545
Anritsu	MA2411B	Pulse Power Sensor	8/8/2019	Annual	8/8/2020	1339008
Anritsu	MA2411B	Pulse Power Sensor	12/4/2019	Annual	12/4/2020	1126066
Anritsu	ML2495A	Power Meter	11/15/2019	Annual	11/15/2020	1039008
Anritsu	ML2495A	Power Meter	12/17/2019	Annual	12/17/2020	941001
Anritsu	MT8821C	Radio Communication Analyzer	8/16/2019	Annual	8/16/2020	6201144418
Anritsu	MT8821C	Radio Communication Analyzer	10/2/2019	Annual	10/2/2020	6201664756
Anritsu	MT8821C	Radio Communication Analyzer	11/22/2019	Annual	11/22/2020	6262044715
Anritsu	MT8821C	Radio Communication Analyzer	2/22/2020	Annual	2/22/2021	6261895213
Anritsu	MT8821C	Radio Communication Analyzer	3/10/2020	Annual	3/10/2021	6200901190
Anritsu	MT8862A	Wireless Connectivity Test Set	8/8/2019	Annual	8/8/2020	6261782395
Control Company	4040	Therm./ Clock/ Humidity Monitor	10/9/2018	Biennial	10/9/2020	181647811
Control Company	4040	Therm./ Clock/ Humidity Monitor	10/9/2018	Biennial	10/9/2020	181647802
Control Company	4352	Long Stem Thermometer	6/26/2019	Biennial	6/26/2021	192282744
Control Company	4352	Long Stem Thermometer	6/26/2019	Biennial	6/26/2021	192282739
Control Company	4352	Ultra Long Stem Thermometer	8/2/2018	Biennial	8/2/2020	181292054
Control Company	4352	Ultra Long Stem Thermometer	8/2/2018	Biennial	8/2/2020	181292061
Keysight	772D	Dual Directional Coupler	CBT	N/A	CBT	MY52180215
Keysight Technologies	AT/N6705B	DC Power Supply	N/A	N/A	N/A	MY53001315
Keysight Technologies	N6705B	DC Power Analyzer	4/27/2019	Biennial	4/27/2021	MY53004059
Keysight Technologies	U3401A	Digital Multimeter	5/14/2020	Biennial	5/14/2022	MY57201470
MCL	BW-N6W5+	6dB Attenuator	CBT	N/A	CBT	1139
MiniCircuits	SLP-2400+	Low Pass Filter	CBT	N/A	CBT	R8979500903
MiniCircuits	VLF-6000+	Low Pass Filter	CBT	N/A	CBT	N/A
Mini-Circuits	BW-N20W5	Power Attenuator	CBT	N/A	CBT	1226
Mini-Circuits	BW-N20W5+	DC to 18 GHz Precision Fixed 20 dB Attenuator	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-1200+	Low Pass Filter DC to 1000 MHz	CBT	N/A	CBT	N/A
Mini-Circuits	NLP-2950+	Low Pass Filter DC to 2700 MHz	CBT	N/A	CBT	N/A
Narda	4014C-6	4 - 8 GHz SMA 6 dB Directional Coupler	CBT	N/A	CBT	N/A
Narda	4772-3	Attenuator (3dB)	CBT	N/A	CBT	9406
Narda	BW-S3W2	Attenuator (3dB)	CBT	N/A	CBT	120
Pasternack	PE2208-6	Bidirectional Coupler	CBT	N/A	CBT	N/A
Rohde & Schwarz	CMW500	Radio Communication Tester	10/15/2019	Annual	10/15/2020	109366
Rohde & Schwarz	CMW500	Radio Communication Tester	8/20/2019	Annual	8/20/2020	106578
Rohde & Schwarz	ZNLE6	Vector Network Analyzer	10/11/2019	Annual	10/11/2020	101307
SPEAG	DAK-12	Dielectric Assessment Kit (10MHz - 3GHz)	11/12/2019	Annual	11/12/2020	1121
SPEAG	D750V3	750 MHz Dipole	3/11/2020	Annual	3/11/2021	1054
SPEAG	D835V2	835 MHz SAR Dipole	1/13/2020	Annual	1/13/2021	4d132
SPEAG	D1900V2	1900 MHz SAR Dipole	2/21/2019	Biennial	2/21/2021	5d148
SPEAG	D2450V2	2450 MHz SAR Dipole	8/16/2018	Biennial	8/16/2020	981
SPEAG	D5GHzV2	5 GHz SAR Dipole	1/16/2018	Triennial	1/16/2021	1057
SPEAG	D750V3	750 MHz SAR Dipole	3/16/2020	Annual	3/16/2021	1003
SPEAG	D835V2	835 MHz SAR Dipole	3/13/2019	Biennial	3/13/2021	4d047
SPEAG	D1750V2	1750 MHz SAR Dipole	5/12/2020	Annual	5/12/2021	1148
SPEAG	D1750V2	1750 MHz SAR Dipole	10/22/2018	Biennial	10/22/2020	1150
SPEAG	D1765V2	1765 MHz SAR Dipole	5/23/2018	Triennial	5/23/2021	1008
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	5d080
SPEAG	D1900V2	1900 MHz SAR Dipole	10/23/2018	Biennial	10/23/2020	5d149
SPEAG	D2450V2	2450 MHz SAR Dipole	8/14/2019	Annual	8/14/2020	719
SPEAG	D2600V2	2600 MHz SAR Dipole	6/14/2019	Biennial	6/14/2021	1064
SPEAG	D835V2	835 MHz SAR Dipole	10/19/2018	Biennial	10/19/2020	4d133
SPEAG	D2600V2	2600 MHz SAR Dipole	4/11/2018	Triennial	4/11/2021	1004
SPEAG	D5GHzV2	5 GHz SAR Dipole	8/10/2018	Biennial	8/10/2020	1237
SPEAG	EX3DV4	SAR Probe	1/21/2020	Annual	1/21/2021	3589
SPEAG	EX3DV4	SAR Probe	9/19/2019	Annual	9/19/2020	7551
SPEAG	EX3DV4	SAR Probe	7/16/2019	Annual	7/16/2020	7410
SPEAG	EX3DV4	SAR Probe	1/21/2020	Annual	1/21/2021	7488
SPEAG	EX3DV4	SAR Probe	4/21/2020	Annual	4/21/2021	7357
SPEAG	EX3DV4	SAR Probe	12/11/2019	Annual	12/11/2020	7571
SPEAG	EX3DV4	SAR Probe	7/15/2019	Annual	7/15/2020	7547
SPEAG	EX3DV4	SAR Probe	5/18/2020	Annual	5/18/2021	7538
SPEAG	EX3DV4	SAR Probe	6/23/2020	Annual	6/23/2021	7406
SPEAG	EX3DV4	SAR Probe	9/19/2019	Annual	9/19/2020	7552
SPEAG	EX3DV4	SAR Probe	6/23/2020	Annual	6/23/2021	7409
SPEAG	EX3DV4	SAR Probe	12/11/2019	Annual	12/11/2020	7570
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/13/2020	Annual	1/13/2021	1558
SPEAG	DAE4	Dasy Data Acquisition Electronics	9/17/2019	Annual	9/17/2020	1333
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1322
SPEAG	DAE4	Dasy Data Acquisition Electronics	1/13/2020	Annual	1/13/2021	1530
SPEAG	DAE4	Dasy Data Acquisition Electronics	4/15/2020	Annual	4/15/2021	1407
SPEAG	DAE4	Dasy Data Acquisition Electronics	7/11/2019	Annual	7/11/2020	1323
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/20/2020	Annual	5/20/2021	728
SPEAG	DAE4	Dasy Data Acquisition Electronics	12/5/2019	Annual	12/5/2020	1533
SPEAG	DAE4	Dasy Data Acquisition Electronics	5/14/2020	Annual	5/14/2021	1583
SPEAG	DAE4	Dasy Data Acquisition Electronics	6/18/2020	Annual	6/18/2021	1334
SPEAG	DAE4	Dasy Data Acquisition Electronics	9/12/2019	Annual	9/12/2020	1449
SPEAG	DAE4	Dasy Data Acquisition Electronics	3/12/2020	Annual	3/12/2021	1368

Note: Equipment was solely used during its calibration period

Note: CBT (Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. a signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

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16 MEASUREMENT UNCERTAINTIES

a	c	d	e= f(d,k)	f	g	h = c x f/e	i = c x g/e	k
Uncertainty Component	**Tol. (± %)**	**Prob. Dist.**	**Div.**	**c_i 1gm**	**c_i 10 gms**	**1gm u_i (± %)**	**10gms u_i (± %)**	**v_i**
Measurement System								
Probe Calibration	6.55	N	1	1.0	1.0	6.6	6.6	∞
Axial Isotropy	0.25	N	1	0.7	0.7	0.2	0.2	∞
Hemishperical Isotropy	1.3	N	1	0.7	0.7	0.9	0.9	∞
Boundary Effect	2.0	R	1.73	1.0	1.0	1.2	1.2	∞
Linearity	0.3	N	1	1.0	1.0	0.3	0.3	∞
System Detection Limits	0.25	R	1.73	1.0	1.0	0.1	0.1	∞
Readout Electronics	0.3	N	1	1.0	1.0	0.3	0.3	∞
Response Time	0.8	R	1.73	1.0	1.0	0.5	0.5	∞
Integration Time	2.6	R	1.73	1.0	1.0	1.5	1.5	∞
RF Ambient Conditions - Noise	3.0	R	1.73	1.0	1.0	1.7	1.7	∞
RF Ambient Conditions - Reflections	3.0	R	1.73	1.0	1.0	1.7	1.7	∞
Probe Positioner Mechanical Tolerance	0.4	R	1.73	1.0	1.0	0.2	0.2	∞
Probe Positioning w/ respect to Phantom	6.7	R	1.73	1.0	1.0	3.9	3.9	∞
Extrapolation, Interpolation & Integration algorithms for Max. SAR Evaluation	4.0	R	1.73	1.0	1.0	2.3	2.3	∞
Test Sample Related								
Test Sample Positioning	2.7	N	1	1.0	1.0	2.7	2.7	35
Device Holder Uncertainty	1.67	N	1	1.0	1.0	1.7	1.7	5
Output Power Variation - SAR drift measurement	5.0	R	1.73	1.0	1.0	2.9	2.9	∞
SAR Scaling	0.0	R	1.73	1.0	1.0	0.0	0.0	∞
Phantom & Tissue Parameters								
Phantom Uncertainty (Shape & Thickness tolerances)	7.6	R	1.73	1.0	1.0	4.4	4.4	∞
Liquid Conductivity - measurement uncertainty	4.2	N	1	0.78	0.71	3.3	3.0	10
Liquid Permittivity - measurement uncertainty	4.1	N	1	0.23	0.26	1.0	1.1	10
Liquid Conductivity - Temperature Uncertainty	3.4	R	1.73	0.78	0.71	1.5	1.4	∞
Liquid Permittivity - Temperature Unceritainty	0.6	R	1.73	0.23	0.26	0.1	0.1	∞
Liquid Conductivity - deviation from target values	5.0	R	1.73	0.64	0.43	1.8	1.2	∞
Liquid Permittivity - deviation from target values	5.0	R	1.73	0.60	0.49	1.7	1.4	∞
Combined Standard Uncertainty (k=1)		RSS				11.5	11.3	60
Expanded Uncertainty (95% CONFIDENCE LEVEL)		k=2				23.0	22.6	

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17 CONCLUSION

17.1 Measurement Conclusion

The SAR evaluation indicates that the EUT complies with the RF radiation exposure limits of the FCC and Innovation, Science, and Economic Development Canada, with respect to all parameters subject to this test. These measurements were taken to simulate the RF effects of RF exposure under worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are very complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role in possible biological effects are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease). Because various factors may interact with one another to vary the specific biological outcome of an exposure to electromagnetic fields, any protection guide should consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables. [3]

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