



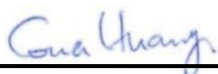
FCC SAR TEST REPORT

FCC ID : A4RG025J
Equipment : Phone
Model Name : G025J, G025N, G025M
Applicant : Google LLC
1600 Amphitheatre Parkway,
Mountain View, California, 94043 USA
Standard : FCC 47 CFR Part 2 (2.1093)
ANSI/IEEE C95.1-1992
IEEE 1528-2013

The product was received on Jan. 17, 2020 and testing was started from Jan. 26, 2020 and completed on Mar. 19, 2020. We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.



Approved by: Cona Huang / Deputy Manager

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History of this test report

Report No.	Version	Description	Issued Date
FA9D0616-05A	01	Initial issue of report	Mar. 24, 2020
FA9D0616-05A	02	Update section3.2	Apr. 02, 2020



1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for Google LLC, Phone, G025J, G025N, G025M, are as follows.

Equipment Class	Frequency Band	Highest SAR Summary			Highest Simultaneous Transmission 1g SAR (W/kg)
		Head (Separation 0mm)	Body-worn (Separation 10mm)	Hotspot (Separation 10mm)	
		1g SAR (W/kg)			
Licensed	GSM850	0.99	1.07	0.96	1.59
	GSM1900	0.48	1.15	0.90	
	WCDMA II	0.64	1.14	0.85	
	WCDMA IV	1.04	1.13	0.94	
	WCDMA V	0.94	0.82	0.82	
	CDMA BC0	1.09	0.98	1.00	
	CDMA BC1	0.74	1.12	1.00	
	CDMA BC10	1.03	1.00	1.00	
	LTE Band 7	1.09	1.19	0.97	
	LTE Band 12 / 17	1.18	0.77	0.77	
	LTE Band 13	0.48	0.64	0.64	
	LTE Band 14	0.48	0.76	0.76	
	LTE Band 2 / 25	0.73	1.16	0.89	
	LTE Band 5 / 26	0.91	0.70	0.70	
	LTE Band 30	0.28	1.03	0.86	
	LTE Band 38 / 41	0.87	1.17	0.79	
	LTE Band 4 / 66	0.72	1.15	0.96	
LTE Band 71	1.00	0.79	0.79		
DTS	2.4GHz WLAN	0.50	0.79	0.53	1.50
NII	5GHz WLAN	0.41	1.00	0.42	1.59
DSS	Bluetooth	0.22	0.59	0.59	1.59
Date of Testing:		2020/1/26 ~ 2020/3/19			

Sporton Lab is accredited to ISO 17025 by Taiwan Accreditation Foundation (TAF code: 1190) and the FCC designation No. TW1190 under the FCC 2.948(e) by Mutual Recognition Agreement (MRA) in FCC test. This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1g SAR 1.6 W/kg for partial-body, 10g SAR 4.0W/kg for extremity) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications

Reviewed by: Jason Wang

Report Producer: Wan Liu

2. Guidance Applied

The Specific Absorption Rate (SAR) testing specification, method, and procedure for this device is in accordance with the following standards:

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01



3. Equipment Under Test (EUT) Information

3.1 General Information

Product Feature & Specification	
Equipment Name	Phone
Model Name	G025J, G025N, G025M
FCC ID	A4RG025J
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA 2000 BC10: 817.9 MHz ~ 823.1 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 14: 790.5 MHz ~ 795.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2472 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS AMR / RMC 12.2Kbps HSDPA HSUPA DC-HSDPA CDMA2000 : 1xRTT/1xEv-Do(Rel.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM, 64QAM WLAN: 802.11a/b/g/n/ac HT20 / HT40 / VHT20 / VHT40 / VHT80 Bluetooth BR/EDR/LE NFC:ASK
GSM / (E)GPRS Dual Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype
Remark: - This device implements open loop antenna tuning techniques for several WWAN (cellular) operating modes. Specifically, this technique is employed in the GSM, WCDMA, CDMA and LTE modes. The detail descriptions of the antenna tuner are included in the operational description. - The device implements the power management and sensor detection for SAR compliance at different exposure conditions (head, body-worn, hotspot) and the device will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. - This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications	

3.2 Maximum Tune-up Limit

General Note:

- For each cellular band, the device has several WWAN antennas, the antenna selection is based on the connection quality condition, and only one antenna will transmit at a time.
- When WWAN single transmitting or WWAN off and WiFi/BT is transmitting which is consider as standalone mode, When WWAN and WLAN/BT transmission at the same time which is consider as simultaneous transmission mode.
- The device implements the power management and sensor detection for SAR compliance at different exposure conditions (head, body-worn, hotspot) by DSI and the device will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description.
- Below table shows maximum tune up output power configured for this EUT for various transmit conditions (Device State Index DSI) by manufacturer, and the detail power measurement and tune-up limit refer to appendix D
- In the table below which the DSI may have difference output power level. If some DSI output power measurement was not include in the appendix D, because the same output power level has been presented within the other DSI and use the same level to doing SAR tested.
- The DSI 0 was not use for SAR testing, the other DSI may same powr levels but DSI 0 is covered for all modes under the mobile RF exposure evaluation, pls refer to Sporton's test report FA9D0616-05B.

Antenna configuration	
Config*	Support transmit antenna and band
Config 0	ANT 0: GSM850, UMTS B5, CDMA BC0/BC10, LTE B5/B12/B13/B14/B17/B26/B71 ANT 2: GSM1900, UMTS B2/B4, CDMA BC1, LTE B2/B4/B7/B25/B30/B66/B38/B41
Config 1	ANT 0: GSM1900, UMTS B2/B4, BC1, LTE B2/B4/B25/B30/B66/B38/B41 ANT 1: GSM850, UMTS B5, CDMA BC0/BC10, LTE B5/B12/B17/B7/B26/B71

*Config 0 and 1 means output ports of power measurement for different antennas and bands.

Config0			Primary Transmitter Maximum Transmit Power Level (dBm)					
Radio Tech	Band Number	Antenna name	DSI_0	DSI_2	DSI_4	DSI_6	DSI_7	DSI_8
			Full	Head Standalone	Body Standalone	Hotspot Simultaneous Transmit	Head Simultaneous Transmit	Body Simultaneous Transmit
GSM/GPRS 1Tx	850	ANT0	33.5	33.5	33.5	32.5	33.5	32.5
GPRS 2Tx	850	ANT0	32.0	32.0	32.0	31.0	32.0	31.0
GPRS 3Tx	850	ANT0	31.0	31.0	31.0	30.0	31.0	30.0
GPRS 4Tx	850	ANT0	30.0	30.0	30.0	29.0	30.0	29.0
EDGE 1Tx	850	ANT0	28.0	28.0	28.0	27.0	28.0	27.0
EDGE 2Tx	850	ANT0	27.0	27.0	27.0	26.0	27.0	26.0
EDGE 3Tx	850	ANT0	27.0	27.0	27.0	26.0	27.0	26.0
EDGE 4Tx	850	ANT0	25.0	25.0	25.0	24.0	25.0	24.0
GSM/GPRS 1Tx	1900	ANT2	31.0	31.0	30.5	30.0	31.0	30.0
GPRS 2Tx	1900	ANT2	29.5	29.5	29.0	28.5	29.5	28.5
GPRS 3Tx	1900	ANT2	29.0	29.0	28.5	28.0	29.0	28.0
GPRS 4Tx	1900	ANT2	28.0	28.0	27.5	27.0	28.0	27.0
EDGE 1Tx	1900	ANT2	27.0	27.0	26.0	26.0	27.0	26.0
EDGE 2Tx	1900	ANT2	26.0	26.0	25.5	25.0	26.0	25.0
EDGE 3Tx	1900	ANT2	25.0	25.0	24.5	24.0	25.0	24.0
EDGE 4Tx	1900	ANT2	24.0	24.0	23.5	23.0	24.0	24.0
WCDMA	B2	ANT2	25.7	25.7	23.1	21.8	25.7	21.8
WCDMA	B4	ANT2	25.7	25.7	23.7	22.9	25.7	22.9
WCDMA	B5	ANT0	25.7	25.7	25.7	25.7	25.7	25.7
CDMA	BC0	ANT0	25.7	25.7	25.2	25.2	25.7	25.2
CDMA	BC1	ANT2	25.7	25.7	22.5	22.0	25.7	22.0
CDMA	BC10	ANT0	25.7	25.7	25.2	25.2	25.7	25.2

Config0			Primary Transmitter Maximum Transmit Power Level (dBm)					
Radio Tech	Band Number	Antenna name	DSI_0	DSI_2	DSI_4	DSI_6	DSI_7	DSI_8
			Full	Head Standalone	Body Standalone	Hotspot Simultaneous Transmit	Head Simultaneous Transmit	Body Simultaneous Transmit
LTE	B2	ANT2	25.7	25.7	23.5	22.7	25.7	22.7
LTE	B4	ANT2	25.7	25.7	23.7	22.9	25.7	22.9
LTE	B5	ANT0	25.7	25.7	25.7	25.7	25.7	25.7
LTE	B7	ANT2	25.0	25.0	18.7	17.5	25.0	17.5
LTE	B12	ANT0	25.7	25.7	25.7	25.7	25.7	25.7
LTE	B13	ANT0	25.5	25.5	25.5	25.5	25.5	25.5
LTE	B14	ANT0	25.7	25.7	25.7	25.7	25.7	25.7
LTE	B17	ANT0	25.7	25.7	25.7	25.7	25.7	25.7
LTE	B25	ANT2	25.7	25.7	23.5	22.7	25.7	22.7
LTE	B26	ANT0	25.7	25.7	25.7	25.7	25.7	25.7
LTE	B30	ANT2	22.5	22.5	21.0	20.0	22.5	20.0
LTE	B38	ANT2	25.0	25.0	20.5	18.5	25.0	19.5
LTE	B38HPUE	ANT2	26.5	26.5	22.0	20.0	26.5	21.0
LTE	B41	ANT2	25.0	25.0	20.5	18.5	25.0	19.5
LTE	B41HPUE	ANT2	26.5	26.5	22.0	20.0	26.5	21.0
LTE	B66	ANT2	25.7	25.7	23.7	22.9	25.7	22.9
LTE	B71	ANT0	25.7	25.7	25.7	25.7	25.7	25.7

Config1			Secondary Transmitter Maximum Transmit Power Level (dBm)					
Radio Tech	Band Number	Antenna name	DSI_0	DSI_2	DSI_4	DSI_6	DSI_7	DSI_8
			Full	Head Standalone	Body Standalone	Hotspot Simultaneous Transmit	Head Simultaneous Transmit	Body Simultaneous Transmit
GSM/GPRS 1Tx	850	ANT1	33.5	30.2	33.0	32.0	29.5	32.0
GPRS 2Tx	850	ANT1	32.0	28.7	31.5	30.5	28.0	30.5
GPRS 3Tx	850	ANT1	31.0	27.7	30.5	29.5	27.0	29.5
GPRS 4Tx	850	ANT1	30.0	26.7	29.5	28.5	26.0	28.5
EDGE 1Tx	850	ANT1	28.0	24.7	27.5	26.5	24.0	26.5
EDGE 2Tx	850	ANT1	27.0	23.7	26.5	25.5	22.5	25.5
EDGE 3Tx	850	ANT1	27.0	23.2	26.5	25.5	22.5	25.5
EDGE 4Tx	850	ANT1	25.0	21.7	24.5	23.5	21.0	23.5
WCDMA	B5	ANT1	25.7	23.7	25.7	25.7	22.9	25.7
CDMA	BC0	ANT1	25.7	23.9	25.7	25.7	23.1	25.7
CDMA	BC10	ANT1	25.7	23.9	25.7	25.7	23.1	25.7
LTE	B5	ANT1	25.7	24.1	25.7	25.7	23.3	25.7
LTE	B12	ANT1	25.7	24.0	25.7	25.7	23.7	25.7
LTE	B17	ANT1	25.7	24.0	25.7	25.7	23.7	25.7
LTE	B26	ANT1	25.7	24.1	25.7	25.7	23.3	25.7
LTE	B71	ANT1	25.7	24.7	25.7	25.7	24.0	25.7

Config1			Secondary Transmitter Maximum Transmit Power Level (dBm)					
Radio Tech	Band Number	Antenna name	DSI_0	DSI_2	DSI_4	DSI_6	DSI_7	DSI_8
			Full	Head Standalone	Body Standalone	Hotspot Simultaneous Transmit	Head Simultaneous Transmit	Body Simultaneous Transmit
GSM/GPRS 1Tx	1900	ANT0	31.0	31.0	26.0	25.5	31.0	25.5
GPRS 2Tx	1900	ANT0	29.5	29.5	24.5	24.0	29.5	24.0
GPRS 3Tx	1900	ANT0	29.0	29.0	24.0	23.5	29.0	23.5
GPRS 4Tx	1900	ANT0	28.0	28.0	23.0	22.5	28.0	22.5
EDGE 1Tx	1900	ANT0	27.0	27.0	22.2	27.0	22.0	22.0
EDGE 2Tx	1900	ANT0	26.0	26.0	21.0	26.0	20.5	20.5
EDGE 3Tx	1900	ANT0	25.0	25.0	20.0	25.0	19.5	19.5
EDGE 4Tx	1900	ANT0	24.0	24.0	19.0	24.0	18.5	18.5
WCDMA	B2	ANT0	25.7	25.7	21.0	19.8	25.7	19.8
WCDMA	B4	ANT0	25.7	25.0	22.6	21.8	24.0	21.8
CDMA	BC1	ANT0	25.7	25.7	20.1	19.3	25.7	19.3
LTE	B2	ANT0	25.7	25.7	20.5	19.5	25.7	19.5
LTE	B4	ANT0	25.7	25.7	23.5	22.7	25.7	22.7
LTE	B7	ANT0	25.0	22.7	22.0	21.0	22.0	21.0
LTE	B25	ANT0	25.7	25.7	20.5	19.5	25.7	19.5
LTE	B30	ANT0	22.5	22.5	19.7	18.9	22.5	18.9
LTE	B38	ANT0	25.0	25.0	23.5	22.0	25.0	22.8
LTE	B38HPUE	ANT0	26.5	26.5	25.0	23.5	26.5	24.3
LTE	B41	ANT0	25.0	25.0	23.5	22.0	25.0	22.8
LTE	B41HPUE	ANT0	26.5	26.5	25.0	23.5	26.5	24.3
LTE	B66	ANT0	25.7	25.7	23.5	22.7	25.7	22.7

<WLAN SISO Maximum Power>

<2.4GHz WLAN>

WLAN SISO Power table

Power Selection				Maximum Tune Up Power Table (dBm)		Standalone& Simultaneous		Simultaneous		Standalone		Simultaneous	
Transmit Antenna						Head Power Table (dBm)		Hotspot 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)	
2.4GHz WLAN	Mode	Channel	Frequency (MHz)	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3
	802.11b 1Mbps	1	2412	20		11		14		19		14	
		6	2437	20		11		14		19		14	
		11	2462	20		11		14		19		14	
	802.11g 6Mbps	1	2412	15.5		11		14		15.5		14	
		6	2437	20		11		14		19		14	
		11	2462	15.5		11		14		15.5		14	
	802.11n-HT20 MCS0	1	2412	15		11		14		15		14	
		6	2437	19.5		11		14		19		14	
		11	2462	14.5		11		14		14.5		14	
	802.11ac-VHT20 MCS0	1	2412	15		11		14		15		14	
		6	2437	19.5		11		14		19		14	
		11	2462	14.5		11		14		14.5		14	



<5GHz WLAN>

WLAN SISO Power table

Power Selection				Maximum Tune Up Power Table (dBm)		Standalone& Simultaneous		Simultaneous		Standalone		Simultaneous	
Transmit Antenna						Head Power Table (dBm)		Hotspot 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)	
WLAN5GHz UNII1	Mode	Channel	Frequency (MHz)	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3
	802.11a 6Mbps	36	5180		16		13.5		14		16		14
		40	5200		17		13.5		14		17		14
		44	5220		17		13.5		14		17		14
		48	5240		17		13.5		14		17		14
	802.11n-HT20 MCS0	36	5180		15		13.5		14		15		14
		40	5200		16.5		13.5		14		16.5		14
		44	5220		17.5		13.5		14		17.5		14
		48	5240		17.5		13.5		14		17.5		14
	802.11n-HT40 MCS0	38	5190		10		10		10		10		10
		46	5230		16		13.5		14		16		14
	802.11ac-VHT20 MCS0	36	5180		15		13.5		14		15		14
		40	5200		16.5		13.5		14		16.5		14
		44	5220		17.5		13.5		14		17.5		14
		48	5240		17.5		13.5		14		17.5		14
	802.11ac-VHT40 MCS0	38	5190		10		10		10		10		10
		46	5230		16		13.5		14		16		14
802.11ac-VHT80 MCS0	42	5210		10		9.5		10		10		10	
WLAN5GHz UNII 2A	802.11a 6Mbps	52	5260		18		13.5				18		14
		56	5280		17.5		13.5				17.5		14
		60	5300		17.5		13.5				17.5		14
		64	5320		17		13.5				17		14
	802.11n-HT20 MCS0	52	5260		17		13.5				17		14
		56	5280		17.5		13.5				17.5		14
		60	5300		17.5		13.5				17.5		14
		64	5320		17.5		13.5				17.5		14
	802.11n-HT40 MCS0	54	5270		16		13.5				16		14
		62	5310		13		13.5				13		14
	802.11ac-VHT20 MCS0	52	5260		17		13.5				17		14
		56	5280		17.5		13.5				17.5		14
		60	5300		17.5		13.5				17.5		14
		64	5320		17.5		13.5				17.5		14
	802.11ac-VHT40 MCS0	54	5270		16		13.5				16		14
		62	5310		13		13.5				13		14
	802.11ac-VHT80 MCS0	58	5290		10.5		10.5				10.5		10.5



Power Selection				Maximum Tune Up Power Table (dBm)		Standalone& Simultaneous		Simultaneous		Standalone		Simultaneous	
Transmit Antenna						Head Power Table (dBm)		Hotspot 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)	
WLAN5GHz UNII 2C	Mode	Channel	Frequency (MHz)	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3	Ant 4	Ant 3
	802.11a 6Mbps	100	5500		17.5		14				17.5		13.5
		116	5580		17		14				17		13.5
		124	5620		17.5		14				17.5		13.5
		132	5660		17.5		14				17.5		13.5
		144	5720		18		14				18		13.5
	802.11n-HT20 MCS0	100	5500		17		14				17		13.5
		116	5580		17		14				17		13.5
		124	5620		18		14				18		13.5
		132	5660		18		14				18		13.5
		144	5720		18		14				18		13.5
	802.11n-HT40 MCS0	102	5510		14.5		14				14.5		13.5
		110	5550		16		14				16		13.5
		126	5630		16		14				16		13.5
		134	5670		16		14				16		13.5
		142	5710		16		14				16		13.5
	802.11ac-VHT20 MCS0	100	5500		17		14				17		13.5
		116	5580		17		14				17		13.5
		124	5620		18		14				18		13.5
		132	5660		18		14				18		13.5
		144	5720		18		14				18		13.5
	802.11ac-VHT40 MCS0	102	5510		14.5		14				14.5		13.5
		110	5550		16		14				16		13.5
		126	5630		16		14				16		13.5
		134	5670		16		14				16		13.5
		142	5710		16		14				16		13.5
	802.11ac-VHT80 MCS0	106	5530		11		12				11		12
		122	5610		17		14				17		13.5
138		5690		17		14				17		13.5	
WLAN5GHz UNII 3	802.11a MCS0	149	5745		18.5		12.5		10		17		10
		157	5785		18.5		12.5		10		17		10
		165	5825		18.5		12.5		10		17		10
	802.11n-HT20 MCS0	149	5745		18		12.5		10		17		10
		157	5785		18		12.5		10		17		10
		165	5825		18		12.5		10		17		10
	802.11n-HT40 MCS0	151	5755		16		12.5		10		16		10
		159	5795		16		12.5		10		16		10
	802.11ac-VHT20 MCS0	149	5745		18		12.5		10		17		10
		157	5785		18		12.5		10		17		10
		165	5825		18		12.5		10		17		10
	802.11ac-VHT40 MCS0	151	5755		16		12.5		10		16		10
		159	5795		16		12.5		10		16		10
	802.11ac-VHT80 MCS0	155	5775		17		12.5		10		16.5		10

<2.4GHz WLAN>
WLAN MIMO Power table

Power Selection				Maximum Tune Up Power Table (dBm)			Standalone& Simultaneous			Simultaneous			Standalone			Simultaneous		
Transmit Antenna							Head Power Table (dBm)			Hotspot 10mm Power Table (dBm)			Body Worn 10mm Power Table (dBm)			Body Worn 10mm Power Table (dBm)		
	Mode	Channel	Frequency (MHz)	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3
2.4GHz WLAN	802.11b 1Mbps	1	2412	20	20	23	14	16.5	18.4	17.5	18.5	21.0	20	20	23.0	17.5	18.5	21.0
		6	2437	20	20	23	14	16.5	18.4	17.5	18.5	21.0	20	20	23.0	17.5	18.5	21.0
		11	2462	20	20	23	14	16.5	18.4	17.5	18.5	21.0	20	20	23.0	17.5	18.5	21.0
	802.11g 6Mbps	1	2412	15.5	15.5	18.5	14	15.5	17.8	17	17	20.0	15.5	15.5	18.5	17	17	20.0
		6	2437	20	20	23	14	16.5	18.4	17.5	18.5	21.0	20	20	23	17.5	18.5	21.0
		11	2462	15.5	15.5	18.5	14	15.5	17.8	17	17	20.0	15.5	15.5	18.5	17	17	20.0
	802.11n-HT20 MCS0	1	2412	15	15	18	14	14.5	17.3	15	14.5	17.8	15	15	18	15	14.5	17.8
		6	2437	19.5	19.5	22.5	14	16.5	18.4	17.5	18.5	21.0	19.5	19.5	22.5	17.5	18.5	21.0
		11	2462	14.5	14.5	17.5	14	14.5	17.3	16.5	16.5	19.5	14.5	14.5	17.5	16.5	16.5	19.5
	802.11ac-VHT20 MCS0	1	2412	15	15	18	14	14.5	17.3	14.5	14.5	17.5	15	15	18	14.5	14.5	17.5
		6	2437	19.5	19.5	22.5	14	16.5	18.4	17.5	18.5	21.0	19.5	19.5	22.5	17.5	18.5	21.0
		11	2462	14.5	14.5	17.5	14	14.5	17.3	16.5	16.5	19.5	14.5	14.5	17.5	16.5	16.5	19.5

<5GHz WLAN>
WLAN MIMO Power table

Power Selection				Maximum Tune Up Power Table (dBm)			Standalone& Simultaneous			Simultaneous			Standalone			Simultaneous		
Transmit Antenna							Head Power Table (dBm)			Hotspot 10mm Power Table (dBm)			Body Worn 10mm Power Table (dBm)			Body Worn 10mm Power Table (dBm)		
WLAN5GHz UNII1	Mode	Channel	Frequency (MHz)	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3
	802.11a 6Mbps	36	5180	16	16	19	14.5	15	17.8	16	14.5	18.3	16	16	19	16	14.5	18.3
		40	5200	17	17	20	14.5	15	17.8	17	14.5	18.9	17	17	20	17	14.5	18.9
		44	5220	17	17	20	14.5	15	17.8	17	14.5	18.9	17	17	20	17	14.5	18.9
		48	5240	17	17	20	14.5	15	17.8	17	14.5	18.9	17	17	20	17	14.5	18.9
	802.11n-HT20 MCS0	36	5180	15	15	18	14.5	15	17.8	15	15	18	15	15	18	15	15	18
		40	5200	16.5	16.5	19.5	14.5	15	17.8	16.5	14.5	18.6	16.5	16.5	19.5	16.5	14.5	18.6
		44	5220	17.5	17.5	20.5	14.5	15	17.8	17.5	14.5	19.3	17.5	17.5	20.5	17.5	14.5	19.3
		48	5240	17.5	17.5	20.5	14.5	15	17.8	17.5	14.5	19.3	17.5	17.5	20.5	17.5	14.5	19.3
	802.11n-HT40 MCS0	38	5190	10	10	13	10	10	13	10	10	13	10	10	13	10	10	13
		46	5230	16	16	19	14.5	15	17.8	15.5	14.5	18	16	16	19	15.5	14.5	18
	802.11ac-VHT20 MCS0	36	5180	15	15	18	14.5	15	17.8	15	15	18	15	15	18	15	15	18
		40	5200	16.5	16.5	19.5	14.5	15	17.8	16.5	14.5	18.6	16.5	16.5	19.5	16.5	14.5	18.6
		44	5220	17.5	17.5	20.5	14.5	15	17.8	17.5	14.5	19.3	17.5	17.5	20.5	17.5	14.5	19.3
		48	5240	17.5	17.5	20.5	14.5	15	17.8	17.5	14.5	19.3	17.5	17.5	20.5	17.5	14.5	19.3
	802.11ac-VHT40 MCS0	38	5190	10	10	10	10	10	13	10	10	13	10	10	13	10	10	13
		46	5230	16	16	19	14.5	15	17.8	15.5	14.5	18	16	16	19	15.5	14.5	18
	802.11ac-VHT80 MCS0	42	5210	10	10	13	10	10	13	10	10	13	10	10	13	10	10	13
WLAN5GHz UNII 2A	802.11a 6Mbps	52	5260	18	18	21	14.5	15	17.8				18	18	21	17	14.5	18.9
		56	5280	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
		60	5300	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
		64	5320	17	17	20	14.5	15	17.8				17	17	20	17	14.5	18.9
	802.11n-HT20 MCS0	52	5260	17	17	20	14.5	15	17.8				17	17	20	17	14.5	18.9
		56	5280	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
		60	5300	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
		64	5320	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
	802.11n-HT40 MCS0	54	5270	16	16	19	14.5	15	17.8				16	16	19	15.5	14.5	18
		62	5310	13	13	16	13	13	16				13	13	16	13	13	16
	802.11ac-VHT20 MCS0	52	5260	17	17	20	14.5	15	17.8				17	17	20	17	14.5	18.9
		56	5280	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
		60	5300	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
		64	5320	17.5	17.5	20.5	14.5	15	17.8				17.5	17.5	20.5	17	14.5	18.9
	802.11ac-VHT40 MCS0	54	5270	16	16	19	14.5	15	17.8				16	16	19	15.5	14.5	18
		62	5310	13	13	16	13	13	16				13	13	16	13	13	16
	802.11ac-VHT80 MCS0	58	5290	10.5	10.50	13.5	10.5	10.5	13.5				10.5	10.5	13.5	10.5	10.5	13.5

Power Selection				Maximum Tune Up Power Table (dBm)			Standalone& Simultaneous			Simultaneous			Standalone			Simultaneous		
Transmit Antenna							Head Power Table (dBm)			Hotspot 10mm Power Table (dBm)			Body Worn 10mm Power Table (dBm)			Body Worn 10mm Power Table (dBm)		
WLAN5GHz UNII 2C	Mode	Channel	Frequency (MHz)	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3	Ant 4	Ant 3	Ant 4+3
	802.11a 6Mbps	100	5500	17.5	17.5	20.5	16	15	18.5				17.5	17.5	20.5	14	14.5	17.3
		116	5580	17	17	20	16	15	18.5				17	17	20	14	14.5	17.3
		124	5620	17.5	17.5	20.5	16	15	18.5				17.5	17.5	20.5	14	14.5	17.3
		132	5660	17.5	17.5	20.5	16	15	18.5				17.5	17.5	20.5	14	14.5	17.3
		144	5720	18	18	21	16	15	18.5				18	18	21	14	14.5	17.3
	802.11n-HT20 MCS0	100	5500	17	17	20	16	15	18.5				17	17	20	14	14.5	17.3
		116	5580	17	17	20	16	15	18.5				17	17	20	14	14.5	17.3
		124	5620	18	18	21	16	15	18.5				18	18	21	14	14.5	17.3
		132	5660	18	18	21	16	15	18.5				18	18	21	14	14.5	17.3
		144	5720	18	18	21	16	15	18.5				18	18	21	14	14.5	17.3
	802.11n-HT40 MCS0	102	5510	14.5	14.5	17.5	14.5	14.5	17.5				14.5	14.5	17.5	14	14.5	17.3
		110	5550	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
		126	5630	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
		134	5670	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
		142	5710	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
	802.11ac-VHT20 MCS0	100	5500	17	17	20	16	15	18.5				17	17	20	14	14.5	17.3
		116	5580	17	17	20	16	15	18.5				17	17	20	14	14.5	17.3
		124	5620	18	18	21	16	15	18.5				18	18	21	14	14.5	17.3
		132	5660	18	18	21	16	15	18.5				18	18	21	14	14.5	17.3
		144	5720	18	18	21	16	15	18.5				18	18	21	14	14.5	17.3
	802.11ac-VHT40 MCS0	102	5510	14.5	14.5	17.5	14.5	14.5	17.5				14.5	14.5	17.5	14	14.5	17.3
		110	5550	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
		126	5630	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
		134	5670	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
		142	5710	16	16	19	16	15	18.5				16	16	19	14	14.5	17.3
	802.11ac-VHT80 MCS0	106	5530	11	11	14	11	11	14				11	11	14	11	11	14
		122	5610	17	17	20	16	15	18.5				17	17	20	14	14.5	17.3
138		5690	17	17	20	16	15	18.5				17	17	20	14	14.50	17.3	
WLAN5GHz UNII 3	802.11a MCS0	149	5745	18.5	18.5	21.5	18.5	12.5	19.5	15	11.5	16.6	18.5	18.5	21.5	15	11.5	16.6
		157	5785	18.5	18.5	21.5	18	12.5	19.1	15	11.5	16.6	18.5	18.5	21.5	15	11.5	16.6
		165	5825	18.5	18.5	21.5	18.5	12.5	19.5	15	11.5	16.6	18.5	18.5	21.5	15	11.5	16.6
	802.11n-HT20 MCS0	149	5745	18	18	21	17.5	12.5	18.7	15	11.5	16.6	18	18	21	15	11.5	16.6
		157	5785	18	18	21	17.5	12.5	18.7	15	11.5	16.6	18	18	21	15	11.5	16.6
		165	5825	18	18	21	18	12.5	19.1	15	11.5	16.6	18	18	21	15	11.5	16.6
	802.11n-HT40 MCS0	151	5755	16	16	19	16	12.5	17.6	15	11.5	16.6	16	16	19	15	11.5	16.6
		159	5795	16	16	19	16	12.5	17.6	15	11.5	16.6	16	16	19	15	11.5	16.6
	802.11ac-VHT20 MCS0	149	5745	18	18	21	17.5	12.5	18.7	15	11.5	16.6	18	18	21	15	11.5	16.6
		157	5785	18	18	21	17.5	12.5	18.7	15	11.5	16.6	18	18	21	15	11.5	16.6
		165	5825	18	18	21	18	12.5	19.1	15	11.5	16.6	18	18	21	15	11.5	16.6
	802.11ac-VHT40 MCS0	151	5755	16	16	19	16	12.5	17.6	15	11.5	16.6	16	16	19	15	11.5	16.6
		159	5795	16	16	19	16	12.5	17.6	15	11.5	16.6	16	16	19	15	11.5	16.6
	802.11ac-VHT80 MCS0	155	5775	17	17	20	17	12.5	18.3	15	11.5	16.6	17	17	20	15	11.5	16.6



<Bluetooth Power table>

Frequency Band	Modulation		Maximum Tune Up Power Table (dBm)	Simultaneous	Simultaneous		Simultaneous		Standalone
				Head Power Table (dBm)	Hotspot 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)		Body Worn 10mm Power Table (dBm)
				Ant 4	Ant 4 WWAN on + WIFI on	Ant 4 WWAN on	Ant 4 WWAN on + WIFI on	Ant 4 WWAN on or WIFI on	Ant 4
Bluetooth	BR/EDR	1Mbps	18	11	15.5	18	15.5	18	18
		2Mbps	13.5	11	13.5	13.5	13.5	13.5	13.5
		3Mbps	13.5	11	13.5	13.5	13.5	13.5	13.5
	LE	1Mbps	9.5	9.5	9.5	9.5	9.5	9.5	9.5
		2Mbps	9.5	9.5	9.5	9.5	9.5	9.5	9.5



3.3 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																																													
FCC ID	A4RG025J																																																																												
Equipment Name	PHONE																																																																												
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 14: 790.5 MHz ~ 795.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz																																																																												
Channel Bandwidth	LTE Band 02:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 04:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 05:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 07: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 30: 5MHz, 10MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz																																																																												
UE Rel and Cat.	Rel16, UL cat. 13, DL cat. 12																																																																												
uplink modulations used	QPSK / 16QAM / 64QAM																																																																												
LTE Voice / Data requirements	Voice and Data																																																																												
LTE MPR permanently built-in by design	<table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table>							Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3								Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3																																																																													
Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)																																																																						
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz																																																																							
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																																																						
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																																						
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2																																																																						
64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2																																																																						
64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																																						
256 QAM	≥ 1						≤ 5																																																																						
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)																																																																												
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																																												
Power reduction applied to satisfy SAR compliance	The device has several different power modes for head / hotspot conditions SAR compliance; power selection is determined by the device's positioning and usage scenarios.																																																																												
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section13																																																																												
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for LTE B5/B7/B66/B41 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 3 carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.																																																																												

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829				
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844				
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510				
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560				
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711				
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #				Freq.(MHz)			
L	23205		779.5		23230				782			
M	23230		782									
H	23255		784.5									
LTE Band 14												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Channel #		Channel #				Freq.(MHz)			
L	23305		790.5		23330				793			
M	23330		793									
H	23355		795.5									
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #				Freq. (MHz)			
L	23755		706.5		23780				709			
M	23790		710		23790				710			
H	23825		713.5		23800				711			
LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880



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H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905
LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 30												
	Bandwidth 5 MHz					Bandwidth 10 MHz						
	Channel #			Freq.(MHz)		Channel #				Freq.(MHz)		
L	27685			2307.5		27710				2310		
M	27710			2310								
H	27735			2312.5								
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
L	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
H	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770
LTE Band 71												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673				
M	133297	680.5	133297	680.5	133297	680.5	133297	680.5				
H	133447	695.5	133422	693	133397	690.5	133372	688				



4. RF Exposure Limits

4.1 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.

4.2 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. The 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.

Limits for Occupational/Controlled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.4	8.0	20.0

Limits for General Population/Uncontrolled Exposure (W/kg)

Whole-Body	Partial-Body	Hands, Wrists, Feet and Ankles
0.08	1.6	4.0

1. Whole-Body SAR is averaged over the entire body, partial-body SAR is averaged over any 1gram of tissue defined as a tissue volume in the shape of a cube. SAR for hands, wrists, feet and ankles is averaged over any 10 grams of tissue defined as a tissue volume in the shape of a cube.

5. Specific Absorption Rate (SAR)

5.1 Introduction

SAR is related to the rate at which energy is absorbed per unit mass in an object exposed to a radio field. The SAR distribution in a biological body is complicated and is usually carried out by experimental techniques or numerical modeling. The standard recommends limits for two tiers of groups, occupational/controlled and general population/uncontrolled, based on a person's awareness and ability to exercise control over his or her exposure. In general, occupational/controlled exposure limits are higher than the limits for general population/uncontrolled.

5.2 SAR Definition

The SAR definition is the time derivative (rate) of the incremental energy (dW) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dv) of a given density (ρ). The equation description is as below:

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

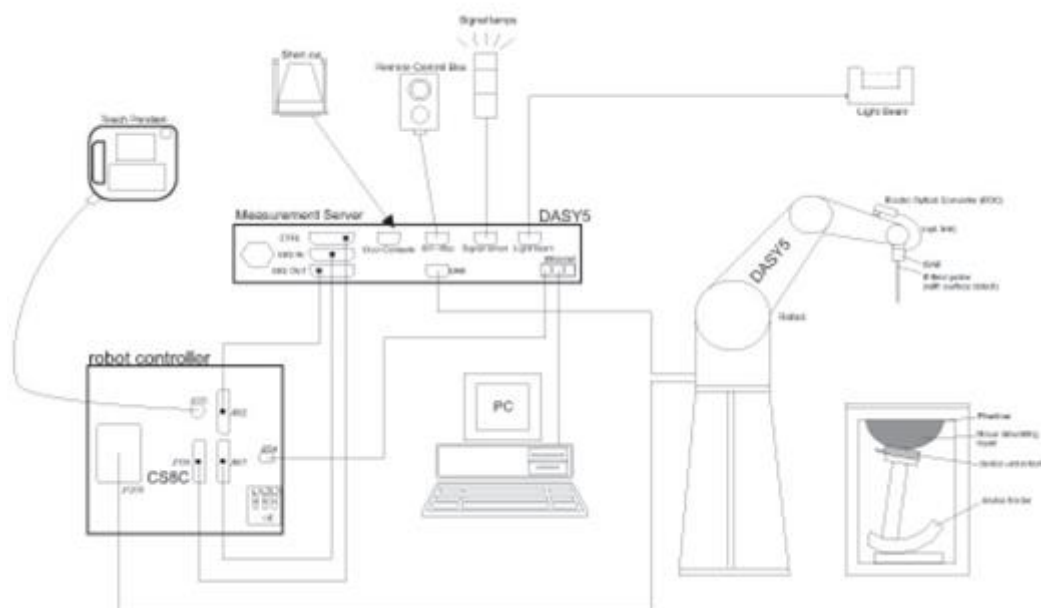
SAR is expressed in units of Watts per kilogram (W/kg)

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

Where: σ is the conductivity of the tissue, ρ is the mass density of the tissue and E is the RMS electrical field strength.

6. System Description and Setup

The DASY system used for performing compliance tests consists of the following items:



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

6.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG). The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

<ES3DV3 Probe>

Construction	Symmetric design with triangular core Interleaved sensors Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – 4 GHz; Linearity: ± 0.2 dB (30 MHz – 4 GHz)	
Directivity	± 0.2 dB in TSL (rotation around probe axis) ± 0.3 dB in TSL (rotation normal to probe axis)	
Dynamic Range	5 μ W/g – >100 mW/g; Linearity: ± 0.2 dB	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 3.9 mm (body: 12 mm) Distance from probe tip to dipole centers: 3.0 mm	

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	10 MHz – >6 GHz Linearity: ± 0.2 dB (30 MHz – 6 GHz)	
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

6.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



Fig 5.1 Photo of DAE

6.3 Phantom

<SAM Twin Phantom>

Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm	
Filling Volume	Approx. 25 liters	
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet	
Measurement Areas	Left Hand, Right Hand, Flat Phantom	

The bottom plate contains three pair of bolts for locking the device holder. The device holder positions are adjusted to the standard measurement positions in the three sections. A white cover is provided to tap the phantom during off-periods to prevent water evaporation and changes in the liquid parameters. On the phantom top, three reference markers are provided to identify the phantom position with respect to the robot.

<ELI Phantom>

Shell Thickness	2 ± 0.2 mm (sagging: <1%)	
Filling Volume	Approx. 30 liters	
Dimensions	Major ellipse axis: 600 mm Minor axis: 400 mm	

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices in the frequency range of 30 MHz to 6 GHz. ELI4 is fully compatible with standard and all known tissue simulating liquids.

6.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

In combination with the Twin SAM V5.0/V5.0c or ELI phantoms, the Mounting Device for Hand-Held Transmitters enables rotation of the mounted transmitter device to specified spherical coordinates. At the heads, the rotation axis is at the ear opening. Transmitter devices can be easily and accurately positioned according to IEC 62209-1, IEEE 1528, FCC, or other specifications. The device holder can be locked for positioning at different phantom sections (left head, right head, flat). And upgrade kit to Mounting Device to enable easy mounting of wider devices like big smart-phones, e-books, small tablets, etc. It holds devices with width up to 140 mm.



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

<Mounting Device for Laptops and other Body-Worn Transmitters>

The extension is lightweight and made of POM, acrylic glass and foam. It fits easily on the upper part of the mounting device in place of the phone positioned. The extension is fully compatible with the SAM Twin and ELI phantoms.



Mounting Device for Laptops

7. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

- (a) For WWAN power measurement, use base station simulator to configure EUT WWAN transmission in conducted connection with RF cable, at maximum power in each supported wireless interface and frequency band.
- (b) Read the WWAN RF power level from the base station simulator.
- (c) For WLAN/BT power measurement, use engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power in each supported wireless interface and frequency band
- (d) Connect EUT RF port through RF cable to the power meter, and measure WLAN/BT output power

<SAR measurement>

- (a) Use base station simulator to configure EUT WWAN transmission in radiated connection, and engineering software to configure EUT WLAN/BT continuously transmission, at maximum RF power, in the highest power channel.
- (b) Place the EUT in the positions as Appendix D demonstrates.
- (c) Set scan area, grid size and other setting on the DASY software.
- (d) Measure SAR results for the highest power channel on each testing position.
- (e) Find out the largest SAR result on these testing positions of each band
- (f) Measure SAR results for other channels in worst SAR testing position if the reported SAR of highest power channel is larger than 0.8 W/kg

According to the test standard, the recommended procedure for assessing the peak spatial-average SAR value consists of the following steps:

- (a) Power reference measurement
- (b) Area scan
- (c) Zoom scan
- (d) Power drift measurement

7.1 Spatial Peak SAR Evaluation

The procedure for spatial peak SAR evaluation has been implemented according to the test standard. It can be conducted for 1g and 10g, as well as for user-specific masses. The DASY software includes all numerical procedures necessary to evaluate the spatial peak SAR value.

The base for the evaluation is a "cube" measurement. The measured volume must include the 1g and 10g cubes with the highest averaged SAR values. For that purpose, the center of the measured volume is aligned to the interpolated peak SAR value of a previously performed area scan.

The entire evaluation of the spatial peak values is performed within the post-processing engine (SEMCAD). The system always gives the maximum values for the 1g and 10g cubes. The algorithm to find the cube with highest averaged SAR is divided into the following stages:

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

7.2 Power Reference Measurement

The Power Reference Measurement and Power Drift Measurements are for monitoring the power drift of the device under test in the batch process. The minimum distance of probe sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

7.3 Area Scan

The area scan is used as a fast scan in two dimensions to find the area of high field values, before doing a fine measurement around the hot spot. The sophisticated interpolation routines implemented in DASY software can find the maximum found in the scanned area, within a range of the global maximum. The range (in dB0) is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

Area scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm $2 - 3$ GHz: ≤ 12 mm	$3 - 4$ GHz: ≤ 12 mm $4 - 6$ GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be $\leq$ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

7.4 Zoom Scan

Zoom scans are used to assess the peak spatial SAR values within a cubic averaging volume containing 1 gram and 10 gram of simulated tissue. The zoom scan measures points (refer to table below) within a cube whose base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

Zoom scan parameters extracted from FCC KDB 865664 D01v01r04 SAR measurement 100 MHz to 6 GHz.

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

7.5 Volume Scan Procedures

The volume scan is used to assess overlapping SAR distributions for antennas transmitting in different frequency bands. It is equivalent to an oversized zoom scan used in standalone measurements. The measurement volume will be used to enclose all the simultaneous transmitting antennas. For antennas transmitting simultaneously in different frequency bands, the volume scan is measured separately in each frequency band. In order to sum correctly to compute the 1g aggregate SAR, the EUT remain in the same test position for all measurements and all volume scan use the same spatial resolution and grid spacing. When all volume scan were completed, the software, SEMCAD postprocessor can combine and subsequently superpose these measurement data to calculating the multiband SAR.

7.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASY measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.

8. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1107	Mar. 08, 2019	Mar. 06, 2021
SPEAG	835MHz System Validation Kit	D835V2	4d167	Nov. 25, 2019	Nov. 24, 2020
SPEAG	1750MHz System Validation Kit	D1750V2	1112	Mar. 07, 2019	Mar. 05, 2021
SPEAG	1900MHz System Validation Kit	D1900V2	5d041	Sep. 11, 2018	Sep. 09, 2020
SPEAG	1900MHz System Validation Kit	D1900V2	5d185	Mar. 07, 2019	Mar. 05, 2021
SPEAG	2300MHz System Validation Kit	D2300V2	1006	Jan. 28, 2019	Jan. 26, 2021
SPEAG	2450MHz System Validation Kit	D2450V2	736	Aug. 31, 2018	Aug. 29, 2020
SPEAG	2600MHz System Validation Kit	D2600V2	1008	Aug. 31, 2018	Aug. 29, 2020
SPEAG	2600MHz System Validation Kit	D2600V2	1078	Mar. 06, 2019	Mar. 04, 2021
SPEAG	5GHz System Validation Kit	D5GHzV2	1128	Dec. 16, 2019	Dec. 15, 2020
SPEAG	Data Acquisition Electronics	DAE4	853	Jul. 18, 2019	Jul. 17, 2020
SPEAG	Data Acquisition Electronics	DAE4	854	May. 21, 2019	May. 20, 2020
SPEAG	Data Acquisition Electronics	DAE4	1305	Apr. 30, 2019	Apr. 29, 2020
SPEAG	Dosimetric E-Field Probe	ES3DV3	3184	Sep. 25, 2019	Sep. 24, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	3642	Apr. 29, 2019	Apr. 28, 2020
SPEAG	Dosimetric E-Field Probe	EX3DV4	7346	Apr. 25, 2019	Apr. 24, 2020
RCPTWN	Thermometer	HTC-1	TM685-1	Nov. 12, 2019	Nov. 11, 2020
RCPTWN	Thermometer	HTC-1	TM560-2	Nov. 12, 2019	Nov. 11, 2020
Anritsu	Radio Communication Analyzer	MT8821C	6201341950	Oct. 31, 2019	Oct. 30, 2020
Agilent	Wireless Communication Test Set	E5515C	MY50267236	Apr. 01, 2019	Mar. 31, 2020
R&S	BT Base Station	CBT32	100519	Jun. 04, 2019	Jun. 03, 2020
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Anritsu	Signal Generator	MG3710A	6201502524	Nov. 20, 2019	Nov. 19, 2020
Agilent	ENA Network Analyzer	E5071C	MY46104758	Sep. 06, 2019	Sep. 05, 2020
SPEAG	Dielectric Probe Kit	DAK-3.5	1126	Sep. 18, 2019	Sep. 17, 2020
LINE SEIKI	Digital Thermometer	DTM3000-spezial	3169	Sep. 10, 2019	Sep. 09, 2020
Anritsu	Power Meter	ML2495A	1036004	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Sensor	MA2411B	1027253	Aug. 08, 2019	Aug. 07, 2020
Anritsu	Power Meter	ML2495A	1419002	May. 29, 2019	May. 28, 2020
Anritsu	Power Sensor	MA2411B	1339124	May. 29, 2019	May. 28, 2020
Agilent	Spectrum Analyzer	E4408B	MY44211028	Aug. 27, 2019	Aug. 26, 2020
Anritsu	Spectrum Analyzer	MS2830A	6201396378	Jun. 27, 2019	Jun. 26, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	6418	Oct. 16, 2019	Oct. 15, 2020
Mini-Circuits	Power Amplifier	ZVE-8G+	6382	Aug. 12, 2019	Aug. 11, 2020
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Woken	Attenuator 1	WK0602-XX	N/A	Note 1	
PE	Attenuator 2	PE7005-10	N/A	Note 1	
PE	Attenuator 3	PE7005- 3	N/A	Note 1	

General Note:

- Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check source.
- Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
- The justification data of dipole D750V3, SN: 1107, D1750V2, SN: 1112, D1900V2, SN: 5d041, D1900V2, SN: 5d185, D2300V2, SN: 1006, D2450V2, SN: 736, D2600V2, SN: 1008, D2600V2, SN: 1078, can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

9. System Verification

9.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 10.2.

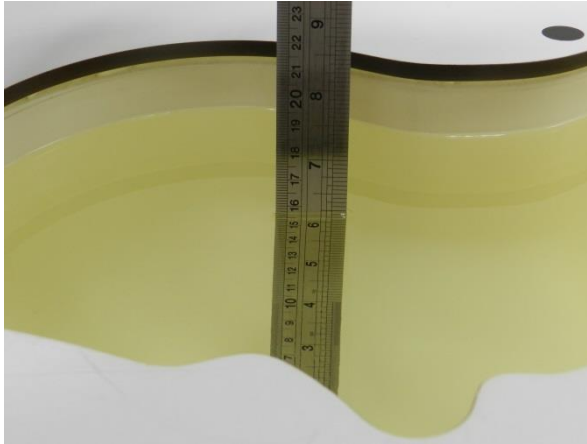


Fig 10.1 Photo of Liquid Height for Head SAR

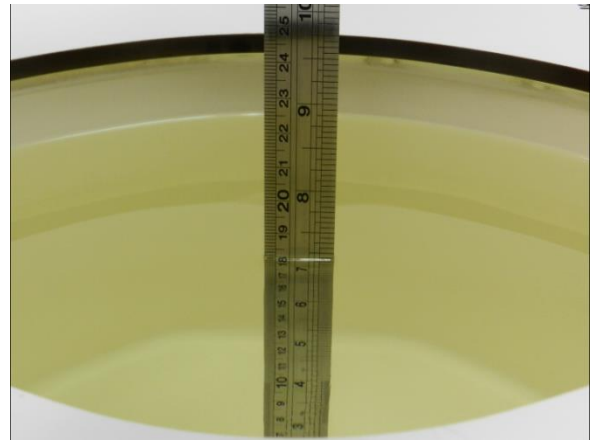


Fig 10.2 Photo of Liquid Height for Body SAR

**9.2 Tissue Verification**

The following tissue formulations are provided for reference only as some of the parameters have not been thoroughly verified. The composition of ingredients may be modified accordingly to achieve the desired target tissue parameters required for routine SAR evaluation.

Frequency (MHz)	Water (%)	Sugar (%)	Cellulose (%)	Salt (%)	Preventol (%)	DGBE (%)	Conductivity (σ)	Permittivity (ϵ_r)
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
900	40.3	57.9	0.2	1.4	0.2	0	0.97	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

Ingredients	(% by weight)
Water	64~78%
Mineral oil	11~18%
Emulsifiers	9~15%
Additives and Salt	2~3%

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
750	22.4	0.906	41.497	0.89	41.90	1.80	-0.96	±5	2020/2/8
750	22.6	0.901	41.732	0.89	41.90	1.24	-0.40	±5	2020/2/9
750	22.3	0.904	41.441	0.89	41.90	1.57	-1.10	±5	2020/2/10
750	22.4	0.902	41.401	0.89	41.90	1.35	-1.19	±5	2020/2/11
750	22.6	0.905	40.878	0.89	41.90	1.69	-2.44	±5	2020/3/19
835	22.4	0.898	40.874	0.90	41.50	-0.22	-1.51	±5	2020/1/29
835	22.2	0.914	43.084	0.90	41.50	1.56	3.82	±5	2020/1/30
835	22.3	0.909	42.844	0.90	41.50	1.00	3.24	±5	2020/1/31
835	22.2	0.905	42.884	0.90	41.50	0.56	3.33	±5	2020/2/1
835	22.2	0.907	41.625	0.90	41.50	0.78	0.30	±5	2020/2/12
835	22.5	0.907	40.573	0.90	41.50	0.78	-2.23	±5	2020/3/3
835	22.5	0.873	42.953	0.90	41.50	-3.00	3.50	±5	2020/3/14
1750	22.5	1.393	39.788	1.37	40.10	1.68	-0.78	±5	2020/1/28
1750	22.5	1.365	40.177	1.37	40.10	-0.36	0.19	±5	2020/1/29
1750	22.6	1.365	40.889	1.37	40.10	-0.36	1.97	±5	2020/3/4
1750	22.6	1.377	40.701	1.37	40.10	0.51	1.50	±5	2020/3/19
1900	22.5	1.433	40.445	1.40	40.00	2.36	1.11	±5	2020/1/26
1900	22.3	1.429	40.340	1.40	40.00	2.07	0.85	±5	2020/1/27
1900	22.9	1.362	40.139	1.40	40.00	-2.71	0.35	±5	2020/3/3
1900	22.6	1.411	40.395	1.40	40.00	0.79	0.99	±5	2020/3/4
1900	22.2	1.441	39.561	1.40	40.00	2.93	-1.10	±5	2020/3/11
1900	22.6	1.458	40.225	1.40	40.00	4.14	0.56	±5	2020/3/19
2300	22.5	1.661	40.570	1.67	39.50	-0.54	2.71	±5	2020/1/27
2300	22.2	1.647	40.882	1.67	39.50	-1.38	3.50	±5	2020/3/3
2300	22.2	1.610	40.809	1.67	39.50	-3.59	3.31	±5	2020/3/10
2450	22.3	1.860	39.738	1.80	39.20	3.33	1.37	±5	2020/2/19
2450	22.7	1.830	38.285	1.80	39.20	1.67	-2.33	±5	2020/2/20
2450	22.6	1.856	39.684	1.80	39.20	3.11	1.23	±5	2020/3/6
2600	22.2	1.983	39.454	1.96	39.00	1.17	1.16	±5	2020/1/26
2600	22.6	1.978	39.424	1.96	39.00	0.92	1.09	±5	2020/1/28
2600	22.5	2.012	38.869	1.96	39.00	2.65	-0.34	±5	2020/1/29
2600	22.5	1.958	39.335	1.96	39.00	-0.10	0.86	±5	2020/2/27
2600	22.7	1.977	37.626	1.96	39.00	0.87	-3.52	±5	2020/3/1
2600	22.1	1.917	37.842	1.96	39.00	-2.19	-2.97	±5	2020/3/2
2600	22.2	1.976	39.233	1.96	39.00	0.82	0.60	±5	2020/3/4
2600	22.2	1.955	39.689	1.96	39.00	-0.26	1.77	±5	2020/3/10
2600	22.5	1.977	37.618	1.96	39.00	0.87	-3.54	±5	2020/3/19
5250	22.3	4.591	35.981	4.71	35.95	-2.53	0.09	±5	2020/2/17
5250	22.2	4.558	36.754	4.71	35.95	-3.23	2.24	±5	2020/2/21
5250	22.2	4.710	36.719	4.71	35.95	0.00	2.14	±5	2020/2/22
5600	22.3	4.940	35.463	5.07	35.50	-2.56	-0.10	±5	2020/2/17
5600	22.2	4.891	36.310	5.07	35.50	-3.53	2.28	±5	2020/2/21
5600	22.2	5.064	36.225	5.07	35.50	-0.12	2.04	±5	2020/2/22
5750	22.3	5.099	35.255	5.22	35.35	-2.32	-0.27	±5	2020/2/17
5750	22.2	5.037	36.133	5.22	35.35	-3.51	2.21	±5	2020/2/21
5750	22.2	5.220	36.042	5.22	35.35	0.00	1.96	±5	2020/2/22

9.3 System Performance Check Results

Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the plots can be referred to Appendix A of this report.

Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2020/2/8	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	2.03	8.32	8.12	-2.40
2020/2/9	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	2.02	8.32	8.08	-2.88
2020/2/10	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	2.02	8.32	8.08	-2.88
2020/2/11	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	2.02	8.32	8.08	-2.88
2020/3/19	750	250	D750V3-1107	EX3DV4 - SN7346	DAE4 Sn853	2.16	8.32	8.64	3.85
2020/1/29	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	2.21	9.55	8.84	-7.43
2020/1/30	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	2.43	9.55	9.72	1.78
2020/1/31	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	2.42	9.55	9.68	1.36
2020/2/1	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	2.41	9.55	9.64	0.94
2020/2/12	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	2.30	9.55	9.2	-3.66
2020/3/3	835	250	D835V2-4d167	EX3DV4 - SN3642	DAE4 Sn854	2.47	9.55	9.88	3.46
2020/3/14	835	250	D835V2-4d167	EX3DV4 - SN7346	DAE4 Sn853	2.37	9.55	9.48	-0.73
2020/1/28	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1305	8.59	36.70	34.36	-6.38
2020/1/29	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1305	9.52	36.70	38.08	3.76
2020/3/4	1750	250	D1750V2-1112	EX3DV4 - SN3642	DAE4 Sn854	9.25	36.70	37	0.82
2020/3/19	1750	250	D1750V2-1112	EX3DV4 - SN7346	DAE4 Sn853	8.92	36.70	35.68	-2.78
2020/1/26	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	10.20	39.40	40.8	3.55
2020/1/27	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	10.00	39.40	40	1.52
2020/3/3	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	9.25	39.40	37	-6.09
2020/3/4	1900	250	D1900V2-5d041	EX3DV4 - SN3642	DAE4 Sn854	9.90	40.20	39.6	-1.49
2020/3/11	1900	250	D1900V2-5d041	EX3DV4 - SN7346	DAE4 Sn853	9.53	40.20	38.12	-5.17
2020/3/19	1900	250	D1900V2-5d041	EX3DV4 - SN7346	DAE4 Sn853	9.64	40.20	38.56	-4.08
2020/1/27	2300	250	D2300V2-1006	EX3DV4 - SN3642	DAE4 Sn854	11.70	48.70	46.8	-3.90
2020/3/3	2300	250	D2300V2-1006	EX3DV4 - SN7346	DAE4 Sn853	11.30	48.70	45.2	-7.19
2020/3/10	2300	250	D2300V2-1006	EX3DV4 - SN7346	DAE4 Sn853	11.30	48.70	45.2	-7.19
2020/2/19	2450	250	D2450V2-736	EX3DV4 - SN3642	DAE4 Sn854	13.30	52.70	53.2	0.95
2020/2/20	2450	250	D2450V2-736	ES3DV3 - SN3184	DAE4 Sn1305	12.60	52.70	50.4	-4.36
2020/3/6	2450	250	D2450V2-736	ES3DV3 - SN3184	DAE4 Sn1305	12.80	52.70	51.2	-2.85
2020/1/26	2600	250	D2600V2-1078	EX3DV4 - SN3642	DAE4 Sn854	14.30	57.60	57.2	-0.69
2020/1/28	2600	250	D2600V2-1078	EX3DV4 - SN3642	DAE4 Sn854	14.20	57.60	56.8	-1.39
2020/1/29	2600	250	D2600V2-1078	EX3DV4 - SN3642	DAE4 Sn854	14.80	57.60	59.2	2.78
2020/2/27	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	14.40	56.40	57.6	2.13
2020/3/1	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	13.30	56.40	53.2	-5.67
2020/3/2	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	14.10	56.40	56.4	0.00
2020/3/4	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	13.30	56.40	53.2	-5.67
2020/3/10	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	14.40	56.40	57.6	2.13
2020/3/19	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	14.60	56.40	58.4	3.55
2020/2/17	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN3642	DAE4 Sn854	8.32	80.00	83.2	4.00
2020/2/21	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN3642	DAE4 Sn854	8.34	80.00	83.4	4.25
2020/2/22	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN3642	DAE4 Sn854	8.62	80.00	86.2	7.75
2020/2/17	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN3642	DAE4 Sn854	8.19	82.40	81.9	-0.61
2020/2/21	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN3642	DAE4 Sn854	8.11	82.40	81.1	-1.58
2020/2/22	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN3642	DAE4 Sn854	8.40	82.40	84	1.94
2020/2/17	5750	100	D5GHzV2-1128-5750	EX3DV4 - SN3642	DAE4 Sn854	8.25	79.10	82.5	4.30
2020/2/21	5750	100	D5GHzV2-1128-5750	EX3DV4 - SN3642	DAE4 Sn854	8.21	79.10	82.1	3.79
2020/2/22	5750	100	D5GHzV2-1128-5750	EX3DV4 - SN3642	DAE4 Sn854	8.51	79.10	85.1	7.59

Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2020/2/8	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	1.39	5.61	5.56	-0.89
2020/2/9	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	1.38	5.61	5.52	-1.60
2020/2/10	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	1.39	5.61	5.56	-0.89
2020/2/11	750	250	D750V3-1107	ES3DV3 - SN3184	DAE4 Sn1305	1.39	5.61	5.56	-0.89
2020/3/19	750	250	D750V3-1107	EX3DV4 - SN7346	DAE4 Sn853	1.44	5.61	5.76	2.67
2020/1/29	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	1.48	6.21	5.92	-4.67
2020/1/30	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	1.61	6.21	6.44	3.70
2020/1/31	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	1.60	6.21	6.4	3.06
2020/2/1	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	1.59	6.21	6.36	2.42
2020/2/12	835	250	D835V2-4d167	ES3DV3 - SN3184	DAE4 Sn1305	1.52	6.21	6.08	-2.09
2020/3/3	835	250	D835V2-4d167	EX3DV4 - SN3642	DAE4 Sn854	1.62	6.21	6.48	4.35
2020/3/14	835	250	D835V2-4d167	EX3DV4 - SN7346	DAE4 Sn853	1.52	6.21	6.08	-2.09
2020/1/28	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1305	4.71	19.40	18.84	-2.89
2020/1/29	1750	250	D1750V2-1112	ES3DV3 - SN3184	DAE4 Sn1305	5.07	19.40	20.28	4.54
2020/3/4	1750	250	D1750V2-1112	EX3DV4 - SN3642	DAE4 Sn854	4.94	19.40	19.76	1.86
2020/3/19	1750	250	D1750V2-1112	EX3DV4 - SN7346	DAE4 Sn853	4.80	19.40	19.2	-1.03
2020/1/26	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	5.20	20.50	20.8	1.46
2020/1/27	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	5.23	20.50	20.92	2.05
2020/3/3	1900	250	D1900V2-5d185	ES3DV3 - SN3184	DAE4 Sn1305	4.94	20.50	19.76	-3.61
2020/3/4	1900	250	D1900V2-5d041	EX3DV4 - SN3642	DAE4 Sn854	5.06	21.20	20.24	-4.53
2020/3/11	1900	250	D1900V2-5d041	EX3DV4 - SN7346	DAE4 Sn853	4.96	21.20	19.84	-6.42
2020/3/19	1900	250	D1900V2-5d041	EX3DV4 - SN7346	DAE4 Sn853	5.02	21.20	20.08	-5.28
2020/1/27	2300	250	D2300V2-1006	EX3DV4 - SN3642	DAE4 Sn854	5.53	23.20	22.12	-4.66
2020/3/3	2300	250	D2300V2-1006	EX3DV4 - SN7346	DAE4 Sn853	5.39	23.20	21.56	-7.07
2020/3/10	2300	250	D2300V2-1006	EX3DV4 - SN7346	DAE4 Sn853	5.35	23.20	21.4	-7.76
2020/2/19	2450	250	D2450V2-736	EX3DV4 - SN3642	DAE4 Sn854	6.16	24.60	24.64	0.16
2020/2/20	2450	250	D2450V2-736	ES3DV3 - SN3184	DAE4 Sn1305	5.81	24.60	23.24	-5.53
2020/3/6	2450	250	D2450V2-736	ES3DV3 - SN3184	DAE4 Sn1305	5.68	24.60	22.72	-7.64
2020/1/26	2600	250	D2600V2-1078	EX3DV4 - SN3642	DAE4 Sn854	6.53	25.50	26.12	2.43
2020/1/28	2600	250	D2600V2-1078	EX3DV4 - SN3642	DAE4 Sn854	6.52	25.50	26.08	2.27
2020/1/29	2600	250	D2600V2-1078	EX3DV4 - SN3642	DAE4 Sn854	6.60	25.50	26.4	3.53
2020/2/27	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	6.43	25.30	25.72	1.66
2020/3/1	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	6.03	25.30	24.12	-4.66
2020/3/2	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	6.30	25.30	25.2	-0.40
2020/3/4	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	6.03	25.30	24.12	-4.66
2020/3/10	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	6.42	25.30	25.68	1.50
2020/3/19	2600	250	D2600V2-1008	EX3DV4 - SN7346	DAE4 Sn853	6.50	25.30	26	2.77
2020/2/17	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN3642	DAE4 Sn854	2.39	22.90	23.9	4.37
2020/2/21	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN3642	DAE4 Sn854	2.35	22.90	23.5	2.62
2020/2/22	5250	100	D5GHzV2-1128-5250	EX3DV4 - SN3642	DAE4 Sn854	2.43	22.90	24.3	6.11
2020/2/17	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN3642	DAE4 Sn854	2.25	23.60	22.5	-4.66
2020/2/21	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN3642	DAE4 Sn854	2.20	23.60	22	-6.78
2020/2/22	5600	100	D5GHzV2-1128-5600	EX3DV4 - SN3642	DAE4 Sn854	2.28	23.60	22.8	-3.39
2020/2/17	5750	100	D5GHzV2-1128-5750	EX3DV4 - SN3642	DAE4 Sn854	2.35	22.60	23.5	3.98
2020/2/21	5750	100	D5GHzV2-1128-5750	EX3DV4 - SN3642	DAE4 Sn854	2.29	22.60	22.9	1.33
2020/2/22	5750	100	D5GHzV2-1128-5750	EX3DV4 - SN3642	DAE4 Sn854	2.37	22.60	23.7	4.87

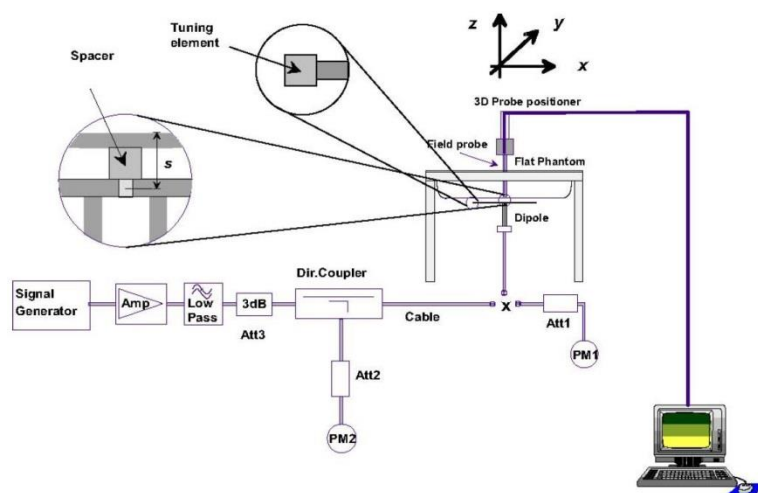


Fig 8.3.1 System Performance Check Setup



Fig 8.3.2 Setup Photo

10. RF Exposure Positions

10.1 Ear and handset reference point

Figure 9.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 9.1.2 The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (neck-front), also called the reference pivoting line, is normal to the Reference Plane and perpendicular to both a line passing through RE and LE and the B-M line (see Figure 9.1.3). Both N-F and B-M lines should be marked on the exterior of the phantom shell to facilitate handset positioning. Posterior to the N-F line the ear shape is a flat surface with 6 mm thickness at each ERP, and forward of the N-F line the ear is truncated, as illustrated in Figure 9.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

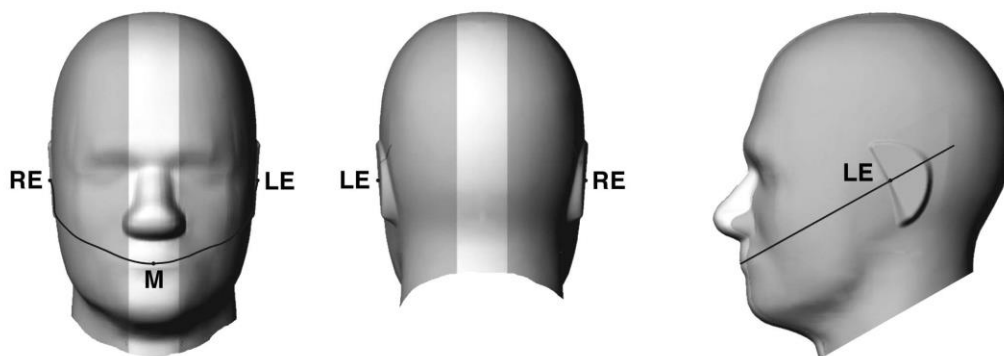


Fig 9.1.1 Front, back, and side views of SAM twin phantom

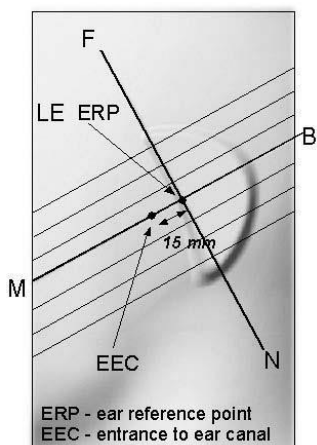


Fig 9.1.2 Close-up side view of phantom showing the ear region.

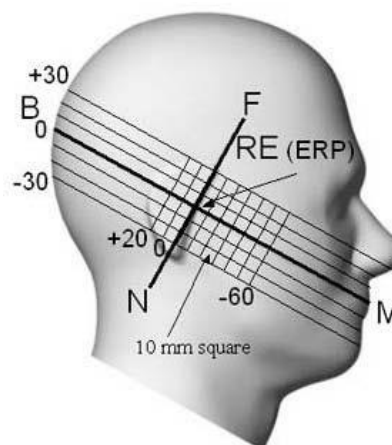


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

10.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width w_t of the handset at the level of the acoustic output (point A in Figure 9.2.1 and Figure 9.2.2), and the midpoint of the width w_b of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 9.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 9.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset 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 9.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 9.2.3. The actual rotation angles should be documented in the test report.

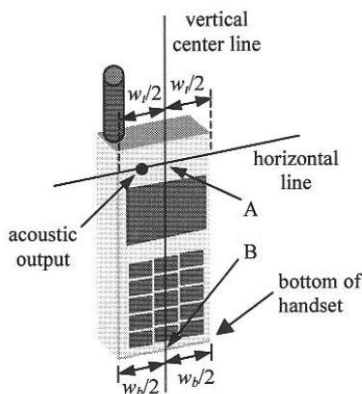


Fig 9.2.1 Handset vertical and horizontal reference lines—"fixed case"

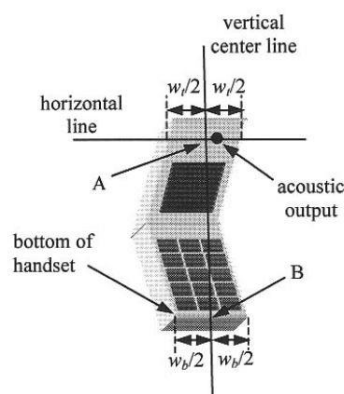


Fig 9.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

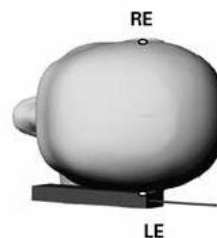
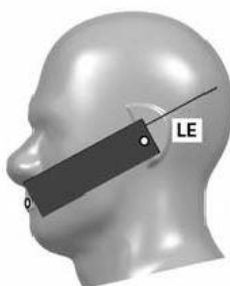
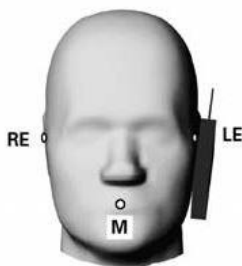


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

10.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 9.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

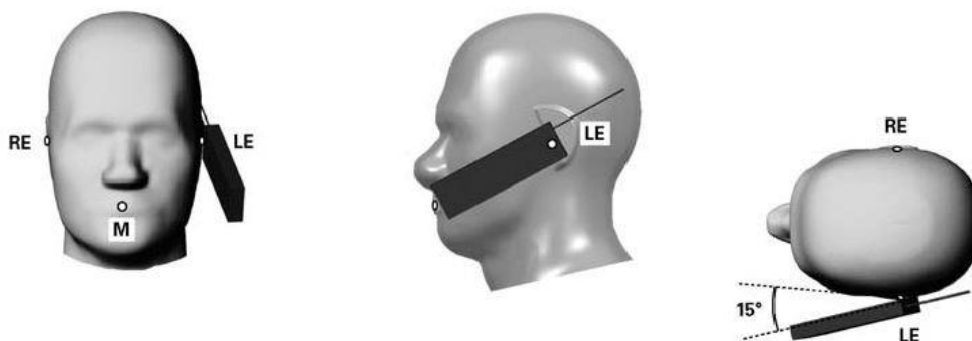


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

10.4 Body Worn Accessory

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 9.4). Per KDB648474 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 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 body-worn accessory, measured without a headset connected to the handset is $> 1.2 \text{ W/kg}$, 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.

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 dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test 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.

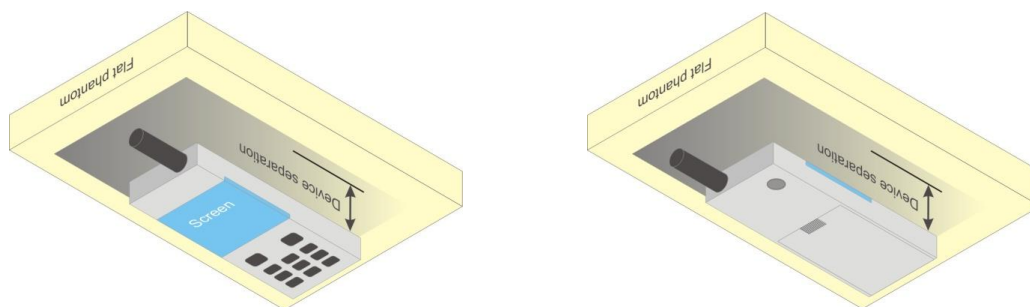


Fig 9.4 Body Worn Position

10.5 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm 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 publication 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.

11. DL/UL carrier aggregation

<LTE Carrier Aggregation combinations>

General Note:

1. This device supports Carrier Aggregation on Uplink and downlink for inter and intra band. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.

2CC Downlink Carrier Aggregation					3CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	2A12A	2A		3CC-1	1	2A12A12A	2A		3CC-2
2	2A13A	2A		3CC-5	2	2A12A30A	2A, 30A, 2A-30A		
3	2A14A	2A		3CC-6	3	2A12A66A	2A, 66A, 2A-66A		
4	2A17A				4	2A12B	2A		3CC-2
5	2A29A	2A	B29 SCC only	3CC-9	5	2A13A66A	2A, 66A, 2A-66A		
6	2A30A	2A, 30A, 2A-30A		3CC-2	6	2A14A30A	2A, 30A, 2A-30A		
7	2A4A	2A, 4A, 2A-4A		3CC-21	7	2A14A66A	2A, 66A, 2A-66A		
8	2A5A	2A, 5A, 2A-5A		3CC-15	8	2A29A30A	2A, 30A, 2A-30A	B29 SCC only	
9	2A66A	2A, 66A, 2A-66A		3CC-17	9	2A29A66A	2A, 66A, 2A-66A	B29 SCC only	
10	2A71A	2A		3CC-18	10	2A2A12A	2A, 2A-2A		3CC-2
11	2A7A	2A, 7A, 2A-7A		3CC-16	11	2A2A13A	2A, 2A-2A		3CC-5
12	4A12A	4A		3CC-20	12	2A2A14A	2A, 2A-2A		3CC-6
13	4A13A	4A		3CC-21	13	2A2A30A	2A, 30A, 2A-2A, 2A-30A, 2A-2A-30A		3CC-6
14	4A17A				14	2A2A4A	2A, 4A, 2A-2A, 2A-4A, 2A-2A-4A		3CC-20
15	4A29A	4A	B29 SCC only	3CC-22	15	2A2A5A	2A, 2A-2A		3CC-29
16	4A30A	4A, 30A, 4A-30		3CC-23	16	2A2A7A	2A, 7A, 2A-2A, 2A-7A, 2A-2A-7A		3CC-36
17	4A5A	4A, 5A, 4A-5A		3CC-48	17	2A2A66A	2A, 66A, 2A-2A, 2A-66A, 2A-2A-66A		3CC-33
18	4A71A	4A		3CC-26	18	2A2A71A	2A, 2A-2A		3CC-33
19	4A7A	4A, 7A, 4A-7A		3CC-27	19	2A30A66A	2A, 30A, 66A, 2A-30A, 2A-66A, 30A-66A, 2A-30A-66A		
20	5A25A	25A			20	2A4A12A	2A, 4A, 2A-4A		
21	5A30A	30A		3CC-29	21	2A4A13A	2A, 4A, 2A-4A		
22	5A38A	38A		3CC-64	22	2A4A29A	2A, 4A, 2A-4A	B29 SCC only	
23	5A41A	41A			23	2A4A30A	2A, 4A, 30A, 2A-4A, 2A-30A, 4A-30A, 2A-4A-30A		
24	5A66A	66A		3CC-61	24	2A4A4A	2A, 4A, 2A-4A, 4A-4A, 2A-4A-4A		3CC-20
25	5A7A	7A		3CC-62	25	2A4A5A	2A, 4A, 5A, 2A-4A, 2A-5A, 4A-5A, 2A-4A-5A		
26	7A12A	7A		3CC-53	26	2A4A71A	2A, 4A, 2A-4A		
27	7A66A	7A, 66A, 7A-66A		3CC-66	27	2A4A7A	2A, 4A, 7A, 2A-4A, 2A-7A, 4A-7A, 2A-4A-7A		
28	12A25A	25A			28	2A5A7A	2A, 7A, 2A-7A		
29	12A30A	30A		3CC-2	29	2A5A30A	2A, 30A, 2A-30A		
30	12A66A	66A		3CC-29	30	2A5A66A	2A, 66A, 2A-66A		
31	13A66A	66A		3CC-5	31	2A5B	2A		3CC-29
32	14A30A	30A		3CC-6	32	2A66A66A	2A, 66A, 2A-66A, 66A-66A, 2A-66A-66A		3CC-33
33	14A66A	66A		3CC-7	33	2A66A71A	2A, 66A, 2A-66A		



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

34	25A26A	25A		3CC-79	34	2A66B	2A, 66B, 2A-66B		3CC-33
35	25A41A	25A, 41A, 25A-41A		3CC-80	35	2A66C	2A, 66C, 2A-66C		3CC-33
36	26A41A	41A			36	2A7A12A	2A, 7A, 2A-7A		
37	29A30A	30A	B29 SCC only	3CC-8	37	2A7A66A	2A, 7A, 66A, 2A-7A, 2A-66A, 7A-66A, 2A-7A-66A		
38	29A66A	66A	B29 SCC only	3CC-9	38	2A7A7A	2A, 7A, 2A-7A, 7A-7A, 2A-7A-7A		3CC-36
39	30A66A	30A, 66A, 30A-66A		3CC-19	39	2A7C	2A, 7C, 2A-7C		3CC-36
40	66A71A	66A		3CC-33	40	2C66A	2C, 66A, 2C-66A		3CC-33
41	7A13A			3CC-87	41	4A12A12A	4A		3CC-42
42	7A26A			3CC-92	42	4A12A30A	4A, 30A, 4A-30A		
43	7A29A		B29 SCC only	3CC-93	43	4A12B	4A		3CC-42
44	2A2A	2A, 2A-2A		3CC-10	44	4A29A30A	4A, 30A, 4A-30A	B29 SCC only	
45	2C	2C		3CC-40	45	4A4A12A	4A, 4A-4A		3CC-20
46	4A4A	4A, 4A-4A		3CC-45	46	4A4A13A	4A, 4A-4A		3CC-21
47	5A5A			3CC-57	47	4A4A30A	4A, 30A, 4A-30A		3CC-23
48	5B	5B		3CC-52	48	4A4A5A	4A, 4A-4A		3CC-25
49	7A7A	7A, 7A-7A		3CC-62	49	4A4A71A	4A, 4A-4A		3CC-26
50	7B	7B		3CC-94	50	4A4A7A	4A, 7A, 4A-4A, 4A-7A, 4A-4A-7A		3CC-27
51	7C	7C		3CC-63	51	4A5A30A	4A, 30A, 4A-30A		
52	12A12A			3CC-1	52	4A5B	4A		3CC-25
53	12B			3CC-4	53	4A7A12A	4A, 7A, 4A-7A		
54	25A25A	25A, 25A-25A		3CC-98	54	4A7A7A	4A, 7A, 4A-7A, 7A-7A, 4A-7A-7A		3CC-53
55	38C	38C		3CC-64	55	4A7C	4A, 7C, 4A-7C		3CC-53
56	41A41A	41A, 41A-41A		3CC-99	56	4C7A			3CC-53
57	41C	41C		3CC-101	57	5A5A66A	66A		3CC-58
58	66A66A	66A, 66A-66A		3CC-103	58	5A30A66A	30A, 66A, 30A-66A		
59	66B	66B		3CC-102	59	5A66A66A	66A, 66A-66A		3CC-58
60	66C	66C		3CC-103	60	5A66B	66B		3CC-58
61	38A38A			3CC-64	61	5A66C	66C		3CC-58
					62	5A7A7A	7A, 7A-7A		3CC-28
					63	5A7C	7C		3CC-28
					64	5B38A	-		
					65	5B66A	66A		3CC-58
					66	7A12A66A	7A, 66A, 7A-66A		
					67	7A12B	7A		3CC-66
					68	7A66A66A	7A, 66A, 7A-66A, 66A-66A, 7A-66A-66A		3CC-66
					69	12B66A	66A		3CC-66
					70	12A30A66A	30A, 66A, 30A-66A		
					71	12A12A66A	-		3CC-70
					72	12A66A66A	66A, 66A-66A		3CC-70
					73	12A66C	66C		3CC-70
					74	13A66A66A	66A, 66A-66A		3CC-5
					75	13A66B	66B		3CC-5
					76	13A66C	66C		3CC-5
					77	14A30A66A	30A, 66A, 30A-66A		
					78	14A66A66A	66A, 66A-66A		3CC-78
					79	25A25A26A	25A, 25A-25A		
					80	25A25A41A	25A, 41A, 25A-25A, 25A-41A, 25A-25A-41A		
					81	25A41C	25A, 41C, 25A-41C,		3CC-80
					82	29A30A66A	30A, 66A,	B29 SCC only	

							30A-66A		
					83	29A66A66A	66A, 66A-66A	B29 SCC only	3CC-82
					84	30A66A66A	30A, 66A, 30A-66A, 66A-66A, 30A-66A-66A		3CC-82
					85	66A66A71A	66A, 66A-66A		3CC-33
					86	66C71A	66C		3CC-85
					87	2A7A13A			
					88	2A7A29A		B29 SCC only	
					89	5A7A66A			
					90	7A29A66A		B29 SCC only	
					91	7A7A13A			3CC-87
					92	7A7A26A			
					93	7A7A29A		B29 SCC only	3CC-88
					94	7A7A66A			3CC-90
					95	7C29A		B29 SCC only	3CC-90
					96	7C66A			3CC-90
					97	7C13A			3CC-87
					98	25A25A25A	25A, 25A-25A, 25A-25A-25A		3CC-79
					99	41A41A41A	41A, 41A-41A		
					100	41A41C	41A, 41C, 41A-41C		3CC-99
					101	41D	41D		3CC-99
					102	66A66B	66A, 66B, 66A-66B		3CC-85
					103	66A66C	66A, 66C, 66A-66C		3CC-85

2CC Uplink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	5B	5B		
2	41C	41C		
3	66B	66B		
4	66C	66C		

<Power verification for DL Carrier Aggregation>
General Note:

1. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
2. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
3. The device supports downlink two carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
4. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
5. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
6. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

$$\text{Nominal channel spacing} = \left\lceil \frac{BW_{\text{Channel}(1)} + BW_{\text{Channel}(2)} - 0.1|BW_{\text{Channel}(1)} - BW_{\text{Channel}(2)}|}{0.6} \right\rceil 0.3 \text{ [MHz]}$$

<Two Carrier power verification>

Configure	CA Configuration (BCS)	PCC							SCC				Power	
		LTE Band	BW (MHz)	UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	5A25A	5	10	829	20450	QPSK	1	49	25	20	1960	8340	24.60	24.60
	5A41A	5	10	829	20450	QPSK	1	49	41	20	2593	40620	24.60	24.60
	12A25A	12	10	711	23130	QPSK	1	49	25	20	1960	8340	24.83	24.88
	26A41A	26	15	821.5	26765	QPSK	1	74	41	20	2593	40620	24.92	24.98
	2A17A	2	10	1880	18900	QPSK	1	49	17	10	740	5790	24.62	24.72
	4A17A	4	10	1750	20350	QPSK	1	0	17	10	740	5790	24.68	24.71



<Three Carrier power verification>

Configure		CA Configuration (BCS)	PCC		UL Freq. (MHz)	UL Channel	Mod.	UL# RB	UL RB Offset	SCC1				SCC2				Power	
			LTE Band	BW (MHz)						LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	LTE Band	BW (MHz)	DL Freq. (MHz)	DL Channel	With CA Tx.Power (dBm)	W/O CA Tx.Power (dBm)
Inter-Band	2A12A30A	2	20	1880	18900	QPSK	1	49	12	10	737.5	5095	30	10	2355	9820	24.87	24.90	
	2A12A66A	2	20	1880	18900	QPSK	1	49	12	10	737.5	5095	66	20	2155	66886	24.90	24.90	
	2A13A66A	2	20	1880	18900	QPSK	1	49	13	10	751	5230	66	20	2155	66886	24.90	24.90	
	2A14A30A	2	20	1880	18900	QPSK	1	49	14	10	763	5330	30	10	2355	9820	24.87	24.90	
	2A14A66A	2	20	1880	18900	QPSK	1	49	14	10	763	5330	66	20	2155	66886	24.81	24.90	
	2A29A30A	2	20	1880	18900	QPSK	1	49	29	10	722.5	9715	30	10	2355	9820	24.89	24.90	
	2A29A66A	2	20	1880	18900	QPSK	1	49	29	10	722.5	9715	66	20	2155	66886	24.85	24.90	
	2A30A66A	2	20	1880	18900	QPSK	1	49	30	10	2355	9820	66	20	2155	66886	24.82	24.90	
	2A4A12A	2	20	1880	18900	QPSK	1	49	4	20	2132.5	2175	12	10	737.5	5095	24.80	24.90	
	2A4A13A	2	20	1880	18900	QPSK	1	49	4	20	2132.5	2175	13	10	751	5230	24.84	24.90	
	2A4A29A	2	20	1880	18900	QPSK	1	49	4	20	2132.5	2175	29	10	722.5	9715	24.86	24.90	
	2A4A30A	2	20	1880	18900	QPSK	1	49	4	20	2132.5	2175	30	10	2355	9820	24.83	24.90	
	2A4A5A	2	20	1880	18900	QPSK	1	49	4	20	2132.5	2175	5	10	881.5	2525	24.82	24.90	
	2A4A71A	2	20	1880	18900	QPSK	1	49	4	20	2132.5	2175	71	20	637	68786	24.85	24.90	
	2A4A7A	2	20	1880	18900	QPSK	1	49	4	20	2132.5	2175	7	20	2655	3100	24.80	24.90	
	2A5A7A	2	20	1880	18900	QPSK	1	49	5	10	881.5	2525	7	20	2655	3100	24.90	24.90	
	2A5A30A	2	20	1880	18900	QPSK	1	49	5	10	881.5	2525	30	10	2355	9820	24.81	24.90	
	2A5A66A	2	20	1880	18900	QPSK	1	49	5	10	881.5	2525	66	20	2155	66886	24.81	24.90	
	2A66A71A	2	20	1880	18900	QPSK	1	49	66	20	2155	66886	71	20	637	68786	24.85	24.90	
	2A7A12A	2	20	1880	18900	QPSK	1	49	7	20	2655	3100	12	10	737.5	5095	24.82	24.90	
	2A7A66A	2	20	1880	18900	QPSK	1	49	7	20	2655	3100	12	10	737.5	5095	24.84	24.90	
	4A12A30A	4	20	1720	20050	QPSK	1	0	7	20	2655	3100	66	20	2155	66886	24.89	24.97	
	4A29A30A	4	20	1720	20050	QPSK	1	0	12	10	737.5	5095	30	10	2355	9820	24.92	24.97	
	4A5A30A	4	20	1720	20050	QPSK	1	0	29	10	722.5	9715	30	10	2355	9820	24.97	24.97	
	4A7A12A	4	20	1720	20050	QPSK	1	0	7	20	2655	3100	12	10	737.5	5095	24.93	24.97	
	5A30A66A	5	10	829	20450	QPSK	1	49	30	10	2355	9820	66	20	2155	66886	24.58	24.60	
	5B38A	5	10	829	20450	QPSK	1	49	5	10	883.9	2549	38	20	2595	38000	24.52	24.60	
	7A12A66A	7	20	2560	21350	QPSK	1	99	12	10	737.5	5095	66	20	2155	66886	24.10	24.16	
	12A30A66A	12	10	711	23130	QPSK	1	49	30	10	2355	9820	66	20	2155	66886	24.87	24.88	
	14A30A66A	14	10	793	23330	QPSK	1	0	30	10	2355	9820	66	20	2155	66886	24.88	24.88	
	25A25A26A	25	20	1860	26140	QPSK	1	0	25	5	1992.5	8665	26	15	876.5	8865	25.14	25.24	
	25A25A41A	25	20	1860	26140	QPSK	1	0	25	5	1992.5	8665	41	20	2593	40620	25.21	25.24	
	29A30A66A	30	10	2310	27710	QPSK	1	0	29	10	722.5	9715	66	20	2155	66886	21.52	21.58	
	2A7A13A	2	20	1880	18900	QPSK	1	49	7	20	2655	3100	13	10	751	5230	24.85	24.90	
	2A7A29A	2	20	1880	18900	QPSK	1	49	7	20	2655	3100	29	10	722.5	9715	24.83	24.90	
	5A7A66A	5	10	829	20450	QPSK	1	49	7	20	2655	3100	66	20	2155	66886	24.60	24.60	
	7A29A66A	7	20	2560	21350	QPSK	1	99	29	10	722.5	9715	66	20	2155	66886	24.09	24.16	
	7A7A26A	7	20	2560	21350	QPSK	1	99	7	5	2622.5	2775	26	15	876.5	8865	24.12	24.16	
Intra-Band	Non-Contiguous	41A41A41A	41	20	2680	41490	QPSK	1	49	41	5	2498.50	39675	41	5	2640.3	41093	24.55	24.63

<Uplink Carrier Aggregation Active>
<Intra-Band Uplink carrier aggregation>
General Note:

1. The device supports intra-band uplink carrier aggregation for LTE B5/7/41/66 with a maximum of two 20MHz component carriers. For intra band 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 not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
2. According TCB workshop, 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.
3. Uplink CA is only operating with power class3, and additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

CA_5B_Config 0_DSI 0										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.8	25.7
20575	20476	QPSK	1	0	1	49	2	0	24.74	25.7
20600	20501	QPSK	1	0	1	49	2	0	24.73	25.7

CA_5B_Config 1_DSI 0										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	24.52	25.7
20575	20476	QPSK	1	0	1	49	2	0	24.5	25.7
20600	20501	QPSK	1	0	1	49	2	0	24.35	25.7

CA_5B_Config 1_DSI 7										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	22.23	23.3
20575	20476	QPSK	1	0	1	49	2	0	22.13	23.3
20600	20501	QPSK	1	0	1	49	2	0	22.14	23.3

CA_5B_Config 1_DSI 2										
Combination 10MHz+10MHz (50RB+50RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20450	20549	QPSK	1	0	0	0	1	0	23.05	24.1
20575	20476	QPSK	1	0	1	49	2	0	22.99	24.1
20600	20501	QPSK	1	0	1	49	2	0	22.91	24.1

CA_7C_Config 0_DSI 0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	23.97	25
21100	20902	QPSK	1	0	1	99	2	0	24.11	25
21350	21152	QPSK	1	0	1	99	2	0	23.95	25

CA_7C_Config 0_DSI 8										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	16.3	17.5
21100	20902	QPSK	1	0	1	99	2	0	16.48	17.5
21350	21152	QPSK	1	0	1	99	2	0	16.28	17.5

CA_7C_Config 0_DSI 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	16.35	17.5
21100	20902	QPSK	1	0	1	99	2	0	16.36	17.5
21350	21152	QPSK	1	0	1	99	2	0	16.28	17.5

CA_7C_Config 0_DSI 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	17.76	18.7
21100	20902	QPSK	1	0	1	99	2	0	17.77	18.7
21350	21152	QPSK	1	0	1	99	2	0	17.27	18.7

CA_7C_Config 1_DSI 0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	23.82	25
21100	20902	QPSK	1	0	1	99	2	0	23.71	25
21350	21152	QPSK	1	0	1	99	2	0	23.92	25

CA_7C_Config 1_DSI 7										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	21.39	22
21100	20902	QPSK	1	0	1	99	2	0	21.47	22
21350	21152	QPSK	1	0	1	99	2	0	21.46	22

CA_7C_Config 1_DSI 2										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	21.39	22.7
21100	20902	QPSK	1	0	1	99	2	0	21.47	22.7
21350	21152	QPSK	1	0	1	99	2	0	21.46	22.7

CA_7C_Config 1_DSI 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	19.92	21
21100	20902	QPSK	1	0	1	99	2	0	19.95	21
21350	21152	QPSK	1	0	1	99	2	0	19.94	21

CA_7C_Config 1_DSI 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
20850	21048	QPSK	1	0	0	0	1	0	20.99	22
21100	20902	QPSK	1	0	1	99	2	0	21	22
21350	21152	QPSK	1	0	1	99	2	0	20.79	22

CA_66B_Config 0_DSI 0										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	24.88	25.7
132322	132229	QPSK	1	0	1	24	2	0	24.33	25.7
132597	132504	QPSK	1	0	1	24	2	0	24.34	25.7

CA_66B_Config 0_DSI 6										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	22.13	22.9
132322	132229	QPSK	1	0	1	24	2	0	21.76	22.9
132597	132504	QPSK	1	0	1	24	2	0	21.21	22.9

CA_66B_Config 0_DSI 4										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	22.91	23.7
132322	132229	QPSK	1	0	1	24	2	0	22.54	23.7
132597	132504	QPSK	1	0	1	24	2	0	22.1	23.7

CA_66B_Config 1_DSI 0										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	24.82	25.7
132322	132229	QPSK	1	0	1	24	2	0	24.46	25.7
132597	132504	QPSK	1	0	1	24	2	0	23.72	25.7

CA_66B_Config 1_DSI 6										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	22.25	22.7
132322	132229	QPSK	1	0	1	24	2	0	21.54	22.7
132597	132504	QPSK	1	0	1	24	2	0	21.74	22.7

CA_66B_Config 1_DSI 4										
Combination 15MHz+5MHz (75RB+25RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132047	132140	QPSK	1	0	0	0	1	0	23.08	23.5
132322	132229	QPSK	1	0	1	24	2	0	22.47	23.5
132597	132504	QPSK	1	0	1	24	2	0	22.58	23.5

CA_66C_Config 0_DSI 0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	24.4	25.7
132322	132124	QPSK	1	0	1	99	2	0	24.28	25.7
132572	132374	QPSK	1	0	1	99	2	0	24.25	25.7

CA_66C_Config 0_DSI 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	21.62	22.9
132322	132124	QPSK	1	0	1	99	2	0	21.05	22.9
132572	132374	QPSK	1	0	1	99	2	0	21.16	22.9

CA_66C_Config 0_DSI 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	22.85	23.7
132322	132124	QPSK	1	0	1	99	2	0	22.58	23.7
132572	132374	QPSK	1	0	1	99	2	0	22.44	23.7

CA_66C_Config 1_DSI 0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	24.66	25.7
132322	132124	QPSK	1	0	1	99	2	0	24.31	25.7
132572	132374	QPSK	1	0	1	99	2	0	24.11	25.7

CA_66C_Config 1_DSI 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	21.79	22.7
132322	132124	QPSK	1	0	1	99	2	0	21.37	22.7
132572	132374	QPSK	1	0	1	99	2	0	21.76	22.7

CA_66C_Config 1_DSI 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
132072	132270	QPSK	1	0	0	0	1	0	22.64	23.5
132322	132124	QPSK	1	0	1	99	2	0	22.32	23.5
132572	132374	QPSK	1	0	1	99	2	0	22.5	23.5

CA_41C_Config 0_DSI 0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	23.36	25
40185	39987	QPSK	1	0	1	99	2	0	23.66	25
40620	40422	QPSK	1	0	1	99	2	0	23.6	25
41055	40857	QPSK	1	0	1	99	2	0	23.62	25
41490	41292	QPSK	1	0	1	99	2	0	23.56	25

CA_41C_Config 0_DSI 8										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	17.9	19.5
40185	39987	QPSK	1	0	1	99	2	0	18.31	19.5
40620	40422	QPSK	1	0	1	99	2	0	18.25	19.5
41055	40857	QPSK	1	0	1	99	2	0	18.28	19.5
41490	41292	QPSK	1	0	1	99	2	0	18.12	19.5

CA_41C_Config 0_DSI 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	16.93	18.5
40185	39987	QPSK	1	0	1	99	2	0	17.43	18.5
40620	40422	QPSK	1	0	1	99	2	0	17.26	18.5
41055	40857	QPSK	1	0	1	99	2	0	17.3	18.5
41490	41292	QPSK	1	0	1	99	2	0	17.27	18.5

CA_41C_Config 0_DSI 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	18.88	20.5
40185	39987	QPSK	1	0	1	99	2	0	19.33	20.5
40620	40422	QPSK	1	0	1	99	2	0	19.23	20.5
41055	40857	QPSK	1	0	1	99	2	0	19.26	20.5
41490	41292	QPSK	1	0	1	99	2	0	19.23	20.5

CA_41C_Config 1_DSI 0										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	23.4	25
40185	39987	QPSK	1	0	1	99	2	0	23.89	25
40620	40422	QPSK	1	0	1	99	2	0	24.92	25
41055	40857	QPSK	1	0	1	99	2	0	24.06	25
41490	41292	QPSK	1	0	1	99	2	0	24.33	25

CA_41C_Config 1_DSI 8										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	21.37	22.8
40185	39987	QPSK	1	0	1	99	2	0	21.86	22.8
40620	40422	QPSK	1	0	1	99	2	0	21.89	22.8
41055	40857	QPSK	1	0	1	99	2	0	21.91	22.8
41490	41292	QPSK	1	0	1	99	2	0	22.24	22.8

CA_41C_Config 1_DSI 6										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	20.51	22
40185	39987	QPSK	1	0	1	99	2	0	21.04	22
40620	40422	QPSK	1	0	1	99	2	0	21.06	22
41055	40857	QPSK	1	0	1	99	2	0	21.16	22
41490	41292	QPSK	1	0	1	99	2	0	21.42	22

CA_41C_Config 1_DSI 4										
Combination 20MHz+20MHz (100RB+100RB)										
PCC Channel	SCC Channel	Modulation	PCC		SCC		Total RB Size	Target MPR Level (dB)	Measured Power (dBm)	Tune up Power (dBm)
			RB Size	RB offset	RB Size	RB offset				
39750	39948	QPSK	1	0	0	0	1	0	22.06	23.5
40185	39987	QPSK	1	0	1	99	2	0	22.51	23.5
40620	40422	QPSK	1	0	1	99	2	0	22.57	23.5
41055	40857	QPSK	1	0	1	99	2	0	22.6	23.5
41490	41292	QPSK	1	0	1	99	2	0	22.88	23.5

12. RF Exposure position consideration

Distance of the Antenna to the EUT surface/edge						
Antennas	Front	Back	Top Side	Bottom Side	Right Side	Left Side
WWAN Ant 0	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
WWAN Ant 1	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
WWAN Ant 2	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
2.4GHz WLAN Ant 3	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
2.4GHz WLAN/BT Ant 4	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
5GHz WLAN Ant 3	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
5GHz WLAN Ant 4	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm

Positions for SAR tests; Hotspot mode						
Antennas	Front	Back	Top Side	Bottom Side	Right Side	Left Side
WWAN Ant 0	Yes	Yes	No	Yes	Yes	Yes
WWAN Ant 1	Yes	Yes	Yes	No	Yes	Yes
WWAN Ant 2	Yes	Yes	No	Yes	Yes	Yes
2.4GHz WLAN Ant 3	Yes	Yes	Yes	No	Yes	Yes
2.4GHz WLAN/BT Ant 4	Yes	Yes	Yes	No	Yes	Yes
5GHz WLAN Ant 3	Yes	Yes	Yes	No	Yes	Yes
5GHz WLAN Ant 4	Yes	Yes	Yes	No	Yes	Yes

General Note:

- Referring to KDB 941225 D06 v02r01, when the overall device length and width are $\geq 9\text{cm} \times 5\text{cm}$, the test distance is 10 mm. SAR must be measured for all sides and surfaces with a transmitting antenna located within 25mm from that surface or edge
- The detail antenna location refers to operation description.

13. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For WLAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8\text{W/kg}$.
3. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is $\leq 1.2\text{ W/kg}$, SAR testing with a headset connected to the handset is not required.

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE / DTM modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850/GSM1900 is considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE / DTM are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}\text{ dB}$ higher than the primary mode, SAR measurement is not required for the secondary mode.

UMTS Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is $\leq \frac{1}{4}\text{ dB}$ higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is $\leq 1.2\text{ W/kg}$, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSUPA, HSDPA, DC-HSDPA) are less than $\frac{1}{4}\text{ dB}$ higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

**CDMA Note:**

1. Per KDB 941225 D01v03r01, SAR for next to the ear head exposure is measured in RC3 with the handset configured to transmit at full rate in SO55.
2. Per KDB 941225 D01v03r01, in Hotspot mode EUT is treated as data device and SAR is tested with Ev-Do Rev 0 (RTAP 153.6kbps) as the primary mode.
3. Per KDB 941225 D01v03r01, for Body-worn accessory SAR is measured in RC3 with the handset configured in TDSO/SO32 to transmit at full rate on FCH only with all other code channels disabled. The body-worn accessory procedures in KDB Publication 447498 are applied. The 3G SAR test reduction procedure is applied to the multiple code channel configuration (FCH+SCH), with FCH only as the primary mode.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B12/B26/B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, 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.
7. LTE B2/B4/B5/B17/B38 SAR test was covered by B12/B25/B26/B66/B41; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. The maximum output power, including tolerance, for the smaller band is $\leq$ the larger band to qualify for the SAR test exclusion.
 - b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.
8. For UL CA, SAR was first measured with only a single carrier active in the uplink (CA non-active) for each exposure condition; the uplink CA scenario with two component carriers was additionally tested for the configuration with the highest SAR when UL CA 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
9. TCB Workshop Notes, SAR tests were performed with Power Class 3 (given the specific UL/DL limitations for Power Class 2). Additionally, SAR testing for the power class condition was evaluated for the highest configuration in Power Class 3 for each test configuration to confirm the results were scalable linearly.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closest/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. When in MIMO SAR testing, if the hot spots are separated the scaling factor would scale each hot spot based on the difference between the power for that transmit antenna and the maximum rated power, if the hot spot were not separable or too much overlap which the scaling factor is the worst case rated power/measured power across the two chains in SAR calculation.
6. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

13.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 7	Config1	128	824.2	24.70	26.00	1.349	0.16	0.584	0.788
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 7	Config1	189	836.4	24.23	26.00	1.503	-0.16	0.497	0.747
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 7	Config1	251	848.8	24.18	26.00	1.521	-0.01	0.425	0.646
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Tilted	0mm	DSI 7	Config1	128	824.2	24.70	26.00	1.349	-0.13	0.366	0.494
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Cheek	0mm	DSI 7	Config1	128	824.2	24.70	26.00	1.349	-0.02	0.325	0.438
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Tilted	0mm	DSI 7	Config1	128	824.2	24.70	26.00	1.349	-0.08	0.240	0.324
01	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 2	Config1	128	824.2	25.30	26.70	1.380	0.08	0.715	0.987
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 2	Config1	189	836.4	25.29	26.70	1.384	-0.12	0.613	0.848
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 2	Config1	251	848.8	24.75	26.70	1.567	-0.14	0.524	0.821
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Tilted	0mm	DSI 2	Config1	128	824.2	25.30	26.70	1.380	-0.07	0.434	0.599
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Cheek	0mm	DSI 2	Config1	128	824.2	25.30	26.70	1.380	0.1	0.411	0.567
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Tilted	0mm	DSI 2	Config1	128	824.2	25.30	26.70	1.380	-0.1	0.300	0.414
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 0/2/7	Config0	128	824.2	29.05	30.00	1.245	-0.16	0.563	0.701
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 0/2/7	Config0	189	836.4	28.83	30.00	1.309	-0.14	0.493	0.645
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 0/2/7	Config0	251	848.8	28.78	30.00	1.324	0.09	0.585	0.775
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	DSI 0/2/7	Config0	128	824.2	29.05	30.00	1.245	-0.15	0.314	0.391
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	DSI 0/2/7	Config0	128	824.2	29.05	30.00	1.245	-0.12	0.562	0.699
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	DSI 0/2/7	Config0	128	824.2	29.05	30.00	1.245	-0.16	0.455	0.566
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 0/2/7	Config0	810	1909.8	26.73	28.00	1.340	-0.11	0.281	0.376
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 0/2/7	Config0	512	1850.2	26.57	28.00	1.390	0.06	0.276	0.384
02	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 0/2/7	Config0	661	1880	26.58	28.00	1.387	-0.06	0.343	0.476
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Tilted	0mm	DSI 0/2/7	Config0	810	1909.8	26.73	28.00	1.340	-0.17	0.153	0.205
	GSM1900_Ant 2	GPRS (4 Tx slots)	Left Cheek	0mm	DSI 0/2/7	Config0	810	1909.8	26.73	28.00	1.340	0.18	0.260	0.348
	GSM1900_Ant 2	GPRS (4 Tx slots)	Left Tilted	0mm	DSI 0/2/7	Config0	810	1909.8	26.73	28.00	1.340	-0.01	0.171	0.229
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Cheek	0mm	DSI 0/2/7	Config1	512	1850.2	27.24	28.00	1.191	0.03	0.256	0.305
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Tilted	0mm	DSI 0/2/7	Config1	512	1850.2	27.24	28.00	1.191	-0.16	0.149	0.177
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	DSI 0/2/7	Config1	512	1850.2	27.24	28.00	1.191	0.17	0.306	0.365
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	DSI 0/2/7	Config1	661	1880	27.12	28.00	1.225	-0.08	0.315	0.386
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Cheek	0mm	DSI 0/2/7	Config1	810	1909.8	27.09	28.00	1.233	0.02	0.327	0.403
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Tilted	0mm	DSI 0/2/7	Config1	512	1850.2	27.24	28.00	1.191	-0.06	0.126	0.150



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
03	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config0	9538	1907.6	25.05	25.70	1.161	0.07	0.495	0.575
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config0	9262	1852.4	24.78	25.70	1.236	-0.02	0.466	0.576
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config0	9400	1880	24.85	25.70	1.216	0.01	0.525	0.638
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	DSI 0/2/7	Config0	9538	1907.6	25.05	25.70	1.161	-0.07	0.263	0.305
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config0	9538	1907.6	25.05	25.70	1.161	0.13	0.426	0.495
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	DSI 0/2/7	Config0	9538	1907.6	25.05	25.70	1.161	-0.03	0.272	0.316
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config1	9538	1907.6	25.19	25.70	1.125	0.02	0.493	0.554
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config1	9262	1852.4	25.15	25.70	1.135	-0.08	0.282	0.320
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config1	9400	1880	25.04	25.70	1.164	-0.04	0.279	0.325
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	DSI 0/2/7	Config1	9538	1907.6	25.19	25.70	1.125	0.01	0.191	0.215
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config1	9538	1907.6	25.19	25.70	1.125	-0.01	0.266	0.299
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	DSI 0/2/7	Config1	9538	1907.6	25.19	25.70	1.125	-0.13	0.221	0.249
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config0	1513	1752.6	24.87	25.70	1.211	0.11	0.468	0.567
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Tilted	0mm	DSI 0/2/7	Config0	1513	1752.6	24.87	25.70	1.211	-0.03	0.255	0.309
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config0	1513	1752.6	24.87	25.70	1.211	0.17	0.490	0.593
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config0	1312	1712.4	24.85	25.70	1.216	0.15	0.483	0.587
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config0	1413	1732.6	24.83	25.70	1.222	0.19	0.486	0.594
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Tilted	0mm	DSI 0/2/7	Config0	1513	1752.6	24.87	25.70	1.211	-0.04	0.230	0.278
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	DSI 7	Config1	1413	1732.6	23.62	24.00	1.091	0.03	0.255	0.278
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	DSI 7	Config1	1413	1732.6	23.62	24.00	1.091	-0.17	0.134	0.146
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 7	Config1	1413	1732.6	23.62	24.00	1.091	-0.07	0.684	0.747
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 7	Config1	1312	1712.4	23.60	24.00	1.096	0.04	0.653	0.716
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 7	Config1	1513	1752.6	23.61	24.00	1.094	0.07	0.706	0.772
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	DSI 7	Config1	1413	1732.6	23.62	24.00	1.091	-0.05	0.210	0.229
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	DSI 2	Config1	1413	1732.6	23.96	25.00	1.271	-0.02	0.420	0.534
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	DSI 2	Config1	1413	1732.6	23.96	25.00	1.271	-0.09	0.264	0.335
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 2	Config1	1413	1732.6	23.96	25.00	1.271	0.18	0.785	0.997
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 2	Config1	1312	1712.4	23.84	25.00	1.306	-0.01	0.768	1.003
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 2	Config1	1513	1752.6	23.86	25.00	1.300	-0.03	0.798	1.038
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	DSI 2	Config1	1413	1732.6	23.96	25.00	1.271	-0.04	0.244	0.310
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Cheek	0mm	DSI 0/2/7	Config0	4233	846.6	25.25	25.70	1.109	-0.12	0.428	0.475
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Tilted	0mm	DSI 0/2/7	Config0	4233	846.6	25.25	25.70	1.109	-0.02	0.269	0.298
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config0	4233	846.6	25.25	25.70	1.109	-0.05	0.464	0.515
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config0	4132	826.4	25.21	25.70	1.119	-0.05	0.448	0.502
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Cheek	0mm	DSI 0/2/7	Config0	4182	836.4	25.09	25.70	1.151	-0.05	0.457	0.526
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Tilted	0mm	DSI 0/2/7	Config0	4233	846.6	25.25	25.70	1.109	-0.13	0.274	0.304
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	DSI 7	Config1	4132	826.4	21.30	22.90	1.445	0.07	0.524	0.757
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	DSI 7	Config1	4182	836.4	21.11	22.90	1.510	-0.03	0.579	0.874
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	DSI 7	Config1	4233	846.6	21.27	22.90	1.455	-0.13	0.564	0.821
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	DSI 7	Config1	4132	826.4	21.30	22.90	1.445	-0.16	0.394	0.570
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Cheek	0mm	DSI 7	Config1	4132	826.4	21.30	22.90	1.445	-0.06	0.372	0.538
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Tilted	0mm	DSI 7	Config1	4132	826.4	21.30	22.90	1.445	-0.09	0.233	0.337
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	DSI 2	Config1	4233	846.6	23.08	23.70	1.153	-0.08	0.769	0.887
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	DSI 2	Config1	4132	826.4	23.04	23.70	1.164	-0.08	0.764	0.889
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Cheek	0mm	DSI 2	Config1	4182	836.4	22.92	23.70	1.197	-0.06	0.781	0.935
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Tilted	0mm	DSI 2	Config1	4233	846.6	23.08	23.70	1.153	-0.08	0.479	0.553
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Cheek	0mm	DSI 2	Config1	4233	846.6	23.08	23.70	1.153	-0.03	0.473	0.546
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Tilted	0mm	DSI 2	Config1	4233	846.6	23.08	23.70	1.153	-0.12	0.358	0.413



<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Right Cheek	0mm	DSI 2/7	Config0	777	848.31	24.92	25.70	1.197	-0.1	0.438	0.524
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Right Tilted	0mm	DSI 2/7	Config0	777	848.31	24.92	25.70	1.197	0.01	0.268	0.321
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	DSI 2/7	Config0	777	848.31	24.92	25.70	1.197	-0.1	0.482	0.577
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	DSI 2/7	Config0	1013	824.7	24.86	25.70	1.213	-0.08	0.435	0.528
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	DSI 2/7	Config0	384	836.52	24.85	25.70	1.216	-0.07	0.436	0.530
	CDMA BC0_Ant 0	1xRTT RC3 SO55	Left Tilted	0mm	DSI 2/7	Config0	777	848.31	24.92	25.70	1.197	-0.09	0.299	0.358
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 7	Config1	777	848.31	21.79	23.10	1.352	-0.17	0.653	0.883
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 7	Config1	1013	824.7	21.78	23.10	1.355	0.03	0.640	0.867
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 7	Config1	384	836.52	21.73	23.10	1.371	0.03	0.651	0.892
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Tilted	0mm	DSI 7	Config1	777	848.31	21.79	23.10	1.352	-0.17	0.409	0.553
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Left Cheek	0mm	DSI 7	Config1	777	848.31	21.79	23.10	1.352	0.04	0.407	0.550
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Left Tilted	0mm	DSI 7	Config1	777	848.31	21.79	23.10	1.352	-0.04	0.295	0.399
06	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 2	Config1	777	848.31	22.52	23.90	1.374	-0.09	0.794	1.091
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 2	Config1	1013	824.7	22.47	23.90	1.390	-0.06	0.756	1.051
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 2	Config1	384	836.52	22.43	23.90	1.403	-0.02	0.755	1.059
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Right Tilted	0mm	DSI 2	Config1	777	848.31	22.52	23.90	1.374	-0.06	0.507	0.697
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Left Cheek	0mm	DSI 2	Config1	777	848.31	22.52	23.90	1.374	-0.04	0.464	0.638
	CDMA BC0_Ant 1	1xRTT RC3 SO55	Left Tilted	0mm	DSI 2	Config1	777	848.31	22.52	23.90	1.374	-0.09	0.353	0.485
	CDMA BC1_Ant 2	1xRTT RC3 SO55	Right Cheek	0mm	DSI 0/2/7	Config0	25	1851.25	24.93	25.70	1.194	0.14	0.537	0.641
	CDMA BC1_Ant 2	1xRTT RC3 SO55	Right Cheek	0mm	DSI 0/2/7	Config0	600	1880	24.85	25.70	1.216	0.11	0.560	0.681
07	CDMA BC1_Ant 2	1xRTT RC3 SO55	Right Cheek	0mm	DSI 0/2/7	Config0	1175	1908.75	24.74	25.70	1.247	0.04	0.591	0.737
	CDMA BC1_Ant 2	1xRTT RC3 SO55	Right Tilted	0mm	DSI 0/2/7	Config0	25	1851.25	24.93	25.70	1.194	-0.06	0.258	0.308
	CDMA BC1_Ant 2	1xRTT RC3 SO55	Left Cheek	0mm	DSI 0/2/7	Config0	25	1851.25	24.93	25.70	1.194	0.13	0.366	0.437
	CDMA BC1_Ant 2	1xRTT RC3 SO55	Left Tilted	0mm	DSI 0/2/7	Config0	25	1851.25	24.93	25.70	1.194	0	0.225	0.269
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Right Cheek	0mm	DSI 0/2/7	Config1	25	1851.25	25.40	25.70	1.072	-0.12	0.254	0.272
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Right Tilted	0mm	DSI 0/2/7	Config1	25	1851.25	25.40	25.70	1.072	-0.08	0.126	0.135
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	DSI 0/2/7	Config1	25	1851.25	25.40	25.70	1.072	0.07	0.491	0.526
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	DSI 0/2/7	Config1	600	1880	25.32	25.70	1.091	0.09	0.318	0.347
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	DSI 0/2/7	Config1	1175	1908.75	25.20	25.70	1.122	0	0.221	0.248
	CDMA BC1_Ant 0	1xRTT RC3 SO55	Left Tilted	0mm	DSI 0/2/7	Config1	25	1851.25	25.40	25.70	1.072	-0.05	0.137	0.147
	CDMA BC10_Ant 0	1xRTT RC3 SO55	Right Cheek	0mm	DSI 0/2/7	Config0	580	820.5	24.83	25.70	1.222	-0.06	0.423	0.517
	CDMA BC10_Ant 0	1xRTT RC3 SO55	Right Tilted	0mm	DSI 0/2/7	Config0	580	820.5	24.83	25.70	1.222	0.03	0.277	0.338
	CDMA BC10_Ant 0	1xRTT RC3 SO55	Left Cheek	0mm	DSI 0/2/7	Config0	580	820.5	24.83	25.70	1.222	-0.08	0.433	0.529
	CDMA BC10_Ant 0	1xRTT RC3 SO55	Left Tilted	0mm	DSI 0/2/7	Config0	580	820.5	24.83	25.70	1.222	-0.07	0.298	0.364
	CDMA BC10_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 7	Config1	580	820.5	21.77	23.10	1.358	-0.05	0.613	0.833
	CDMA BC10_Ant 1	1xRTT RC3 SO55	Right Tilted	0mm	DSI 7	Config1	580	820.5	21.77	23.10	1.358	-0.07	0.391	0.531
	CDMA BC10_Ant 1	1xRTT RC3 SO55	Left Cheek	0mm	DSI 7	Config1	580	820.5	21.77	23.10	1.358	0.06	0.379	0.515
	CDMA BC10_Ant 1	1xRTT RC3 SO55	Left Tilted	0mm	DSI 7	Config1	580	820.5	21.77	23.10	1.358	-0.19	0.277	0.376
08	CDMA BC10_Ant 1	1xRTT RC3 SO55	Right Cheek	0mm	DSI 2	Config1	580	820.5	22.45	23.90	1.396	-0.08	0.737	1.029
	CDMA BC10_Ant 1	1xRTT RC3 SO55	Right Tilted	0mm	DSI 2	Config1	580	820.5	22.45	23.90	1.396	0.02	0.485	0.677
	CDMA BC10_Ant 1	1xRTT RC3 SO55	Left Cheek	0mm	DSI 2	Config1	580	820.5	22.45	23.90	1.396	-0.06	0.421	0.588
	CDMA BC10_Ant 1	1xRTT RC3 SO55	Left Tilted	0mm	DSI 2	Config1	580	820.5	22.45	23.90	1.396	0.05	0.326	0.455



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	DSI 0/2/7	Config0	21350	2560	24.16	25.00	1.213	0.15	0.615	0.746
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	DSI 0/2/7	Config0	20850	2510	24.06	25.00	1.242	0.11	0.434	0.539
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	DSI 0/2/7	Config0	21100	2535	24.08	25.00	1.236	0.16	0.580	0.717
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	DSI 0/2/7	Config0	21350	2560	23.13	24.00	1.222	0.07	0.484	0.591
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	DSI 0/2/7	Config0	21350	2560	24.16	25.00	1.213	-0.14	0.187	0.227
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	DSI 0/2/7	Config0	21350	2560	23.13	24.00	1.222	0.05	0.141	0.172
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Cheek	0mm	DSI 0/2/7	Config0	21350	2560	24.16	25.00	1.213	0.18	0.345	0.419
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Cheek	0mm	DSI 0/2/7	Config0	21350	2560	23.13	24.00	1.222	0.01	0.268	0.327
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Tilted	0mm	DSI 0/2/7	Config0	21350	2560	24.16	25.00	1.213	-0.02	0.278	0.337
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Tilted	0mm	DSI 0/2/7	Config0	21350	2560	23.13	24.00	1.222	-0.06	0.224	0.274
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	21100	2535	24.11	25.00	1.227	-0.05	0.601	0.738
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Cheek	0mm	DSI 7	Config1	20850	2510	21.69	22.00	1.074	-0.11	0.409	0.439
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	DSI 7	Config1	20850	2510	21.74	22.00	1.062	-0.11	0.395	0.419
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Tilted	0mm	DSI 7	Config1	20850	2510	21.69	22.00	1.074	-0.16	0.153	0.164
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Tilted	0mm	DSI 7	Config1	20850	2510	21.74	22.00	1.062	-0.19	0.149	0.158
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	DSI 7	Config1	20850	2510	21.69	22.00	1.074	0.05	0.671	0.721
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	DSI 7	Config1	21100	2535	21.61	22.00	1.094	-0.02	0.765	0.837
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	DSI 7	Config1	21350	2560	21.55	22.00	1.109	-0.02	0.733	0.813
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	DSI 7	Config1	20850	2510	21.74	22.00	1.062	0.01	0.687	0.729
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	DSI 7	Config1	21100	2535	21.68	22.00	1.076	0.07	0.784	0.844
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	DSI 7	Config1	21350	2560	21.59	22.00	1.099	-0.15	0.842	0.925
	LTE Band 7_Ant 0	20M	QPSK	100	0	Left Cheek	0mm	DSI 7	Config1	20850	2510	21.73	22.00	1.064	-0.06	0.680	0.724
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Tilted	0mm	DSI 7	Config1	20850	2510	21.69	22.00	1.074	0.01	0.134	0.144
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Tilted	0mm	DSI 7	Config1	20850	2510	21.74	22.00	1.062	0.07	0.127	0.135
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 7	Config1	21100	2535	21.47	22.00	1.130	0.07	0.811	0.916
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Cheek	0mm	DSI 2	Config1	20850	2510	21.69	22.70	1.262	-0.11	0.409	0.516
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	DSI 2	Config1	20850	2510	21.74	22.70	1.247	-0.11	0.395	0.493
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Tilted	0mm	DSI 2	Config1	20850	2510	21.69	22.70	1.262	-0.16	0.153	0.193
	LTE Band 7_Ant 0	20M	QPSK	50	50	Right Tilted	0mm	DSI 2	Config1	20850	2510	21.74	22.70	1.247	-0.19	0.149	0.186
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	DSI 2	Config1	20850	2510	21.69	22.70	1.262	0.05	0.671	0.847
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	DSI 2	Config1	21100	2535	21.61	22.70	1.285	-0.02	0.765	0.983
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Cheek	0mm	DSI 2	Config1	21350	2560	21.55	22.70	1.303	-0.02	0.733	0.955
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	DSI 2	Config1	20850	2510	21.74	22.70	1.247	0.01	0.687	0.857
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	DSI 2	Config1	21100	2535	21.68	22.70	1.265	0.07	0.784	0.992
09	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	DSI 2	Config1	21350	2560	21.59	22.70	1.291	-0.15	0.842	1.087
	LTE Band 7_Ant 0	20M	QPSK	100	0	Left Cheek	0mm	DSI 2	Config1	20850	2510	21.73	22.70	1.250	-0.06	0.680	0.850
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Tilted	0mm	DSI 2	Config1	20850	2510	21.69	22.70	1.262	0.01	0.134	0.169
	LTE Band 7_Ant 0	20M	QPSK	50	50	Left Tilted	0mm	DSI 2	Config1	20850	2510	21.74	22.70	1.247	0.07	0.127	0.158
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 2	Config1	21100	2535	21.47	22.70	1.327	0.07	0.811	1.077



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Cheek	0mm	DSI 0/2/7	Config0	23095	707.5	24.77	25.70	1.239	-0.05	0.330	0.409
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Cheek	0mm	DSI 0/2/7	Config0	23095	707.5	23.73	24.70	1.250	-0.1	0.264	0.330
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Tilted	0mm	DSI 0/2/7	Config0	23095	707.5	24.77	25.70	1.239	0.12	0.212	0.263
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Tilted	0mm	DSI 0/2/7	Config0	23095	707.5	23.73	24.70	1.250	0.04	0.164	0.205
	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config0	23095	707.5	24.77	25.70	1.239	-0.12	0.351	0.435
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Cheek	0mm	DSI 0/2/7	Config0	23095	707.5	23.73	24.70	1.250	-0.08	0.287	0.359
	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Tilted	0mm	DSI 0/2/7	Config0	23095	707.5	24.77	25.70	1.239	-0.06	0.193	0.239
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Tilted	0mm	DSI 0/2/7	Config0	23095	707.5	23.73	24.70	1.250	-0.07	0.147	0.184
	LTE Band 12_Ant 1	10M	QPSK	1	25	Right Cheek	0mm	DSI 7	Config1	23095	707.5	22.55	23.70	1.303	-0.01	0.753	0.981
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Cheek	0mm	DSI 7	Config1	23095	707.5	22.61	23.70	1.285	-0.08	0.718	0.923
	LTE Band 12_Ant 1	10M	QPSK	50	0	Right Cheek	0mm	DSI 7	Config1	23095	707.5	22.55	23.70	1.303	-0.01	0.720	0.938
	LTE Band 12_Ant 1	10M	QPSK	1	25	Right Tilted	0mm	DSI 7	Config1	23095	707.5	22.55	23.70	1.303	-0.07	0.685	0.893
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Tilted	0mm	DSI 7	Config1	23095	707.5	22.61	23.70	1.285	-0.15	0.703	0.904
	LTE Band 12_Ant 1	10M	QPSK	50	0	Right Tilted	0mm	DSI 7	Config1	23095	707.5	22.55	23.70	1.303	-0.09	0.700	0.912
	LTE Band 12_Ant 1	10M	QPSK	1	25	Left Cheek	0mm	DSI 7	Config1	23095	707.5	22.55	23.70	1.303	-0.03	0.412	0.537
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Cheek	0mm	DSI 7	Config1	23095	707.5	22.61	23.70	1.285	-0.04	0.418	0.537
	LTE Band 12_Ant 1	10M	QPSK	1	25	Left Tilted	0mm	DSI 7	Config1	23095	707.5	22.55	23.70	1.303	-0.1	0.320	0.417
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Tilted	0mm	DSI 7	Config1	23095	707.5	22.61	23.70	1.285	-0.06	0.327	0.420
10	LTE Band 12_Ant 1	10M	QPSK	1	25	Right Cheek	0mm	DSI 2	Config1	23095	707.5	22.05	24.00	1.567	-0.01	0.753	1.180
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Cheek	0mm	DSI 2	Config1	23095	707.5	22.11	24.00	1.545	-0.08	0.718	1.109
	LTE Band 12_Ant 1	10M	QPSK	50	0	Right Cheek	0mm	DSI 2	Config1	23095	707.5	22.28	24.00	1.486	-0.01	0.720	1.070
	LTE Band 12_Ant 1	10M	QPSK	1	25	Right Tilted	0mm	DSI 2	Config1	23095	707.5	22.05	24.00	1.567	-0.07	0.685	1.073
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Tilted	0mm	DSI 2	Config1	23095	707.5	22.11	24.00	1.545	-0.15	0.703	1.086
	LTE Band 12_Ant 1	10M	QPSK	50	0	Right Tilted	0mm	DSI 2	Config1	23095	707.5	22.28	24.00	1.486	-0.09	0.700	1.040
	LTE Band 12_Ant 1	10M	QPSK	1	25	Left Cheek	0mm	DSI 2	Config1	23095	707.5	22.05	24.00	1.567	-0.03	0.412	0.646
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Cheek	0mm	DSI 2	Config1	23095	707.5	22.11	24.00	1.545	-0.04	0.418	0.646
	LTE Band 12_Ant 1	10M	QPSK	1	25	Left Tilted	0mm	DSI 2	Config1	23095	707.5	22.05	24.00	1.567	-0.1	0.320	0.501
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Tilted	0mm	DSI 2	Config1	23095	707.5	22.11	24.00	1.545	-0.06	0.327	0.505
	LTE Band 13_Ant 0	10M	QPSK	1	25	Right Cheek	0mm	DSI 0/2/7	Config0	23230	782	24.73	25.50	1.194	-0.1	0.345	0.412
	LTE Band 13_Ant 0	10M	QPSK	25	12	Right Cheek	0mm	DSI 0/2/7	Config0	23230	782	23.73	24.50	1.194	-0.06	0.280	0.334
	LTE Band 13_Ant 0	10M	QPSK	1	25	Right Tilted	0mm	DSI 0/2/7	Config0	23230	782	24.73	25.50	1.194	-0.08	0.215	0.257
	LTE Band 13_Ant 0	10M	QPSK	25	12	Right Tilted	0mm	DSI 0/2/7	Config0	23230	782	23.73	24.50	1.194	-0.09	0.175	0.209
11	LTE Band 13_Ant 0	10M	QPSK	1	25	Left Cheek	0mm	DSI 0/2/7	Config0	23230	782	24.73	25.50	1.194	0.03	0.405	0.484
	LTE Band 13_Ant 0	10M	QPSK	25	12	Left Cheek	0mm	DSI 0/2/7	Config0	23230	782	23.73	24.50	1.194	-0.05	0.313	0.374
	LTE Band 13_Ant 0	10M	QPSK	1	25	Left Tilted	0mm	DSI 0/2/7	Config0	23230	782	24.73	25.50	1.194	-0.1	0.226	0.270
	LTE Band 13_Ant 0	10M	QPSK	25	12	Left Tilted	0mm	DSI 0/2/7	Config0	23230	782	23.73	24.50	1.194	-0.07	0.182	0.217
	LTE Band 14_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	23330	793	24.88	25.70	1.208	-0.09	0.349	0.422
	LTE Band 14_Ant 0	10M	QPSK	25	12	Right Cheek	0mm	DSI 0/2/7	Config0	23330	793	23.89	24.70	1.205	-0.09	0.299	0.360
	LTE Band 14_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	DSI 0/2/7	Config0	23330	793	24.88	25.70	1.208	-0.07	0.214	0.258
	LTE Band 14_Ant 0	10M	QPSK	25	12	Right Tilted	0mm	DSI 0/2/7	Config0	23330	793	23.89	24.70	1.205	0.03	0.184	0.222
12	LTE Band 14_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config0	23330	793	24.88	25.70	1.208	-0.1	0.393	0.475
	LTE Band 14_Ant 0	10M	QPSK	25	12	Left Cheek	0mm	DSI 0/2/7	Config0	23330	793	23.89	24.70	1.205	-0.12	0.329	0.396
	LTE Band 14_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	DSI 0/2/7	Config0	23330	793	24.88	25.70	1.208	-0.09	0.230	0.278
	LTE Band 14_Ant 0	10M	QPSK	25	12	Left Tilted	0mm	DSI 0/2/7	Config0	23330	793	23.89	24.70	1.205	-0.06	0.193	0.233



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config1	26140	1860	25.24	25.70	1.112	0.03	0.281	0.312
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	DSI 0/2/7	Config1	26140	1860	24.17	24.70	1.130	-0.03	0.225	0.254
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	DSI 0/2/7	Config1	26140	1860	25.24	25.70	1.112	-0.11	0.116	0.129
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	DSI 0/2/7	Config1	26140	1860	24.17	24.70	1.130	0.07	0.093	0.105
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	26140	1860	25.24	25.70	1.112	0.18	0.341	0.379
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	26340	1880	25.15	25.70	1.135	0.19	0.343	0.389
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	26590	1905	24.93	25.70	1.194	0.14	0.378	0.451
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	DSI 0/2/7	Config1	26140	1860	24.17	24.70	1.130	-0.09	0.276	0.312
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	DSI 0/2/7	Config1	26140	1860	25.24	25.70	1.112	-0.04	0.172	0.191
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	DSI 0/2/7	Config1	26140	1860	24.17	24.70	1.130	-0.19	0.133	0.150
	LTE Band 25_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	DSI 0/2/7	Config0	26590	1905	24.83	25.70	1.222	0.02	0.523	0.639
	LTE Band 25_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	DSI 0/2/7	Config0	26140	1860	24.72	25.70	1.253	0.06	0.533	0.668
13	LTE Band 25_Ant 2	20M	QPSK	1	99	Right Cheek	0mm	DSI 0/2/7	Config0	26340	1880	24.77	25.70	1.239	0.05	0.591	0.732
	LTE Band 25_Ant 2	20M	QPSK	50	24	Right Cheek	0mm	DSI 0/2/7	Config0	26590	1905	23.81	24.70	1.227	-0.11	0.398	0.489
	LTE Band 25_Ant 2	20M	QPSK	1	99	Right Tilted	0mm	DSI 0/2/7	Config0	26590	1905	24.83	25.70	1.222	-0.06	0.255	0.312
	LTE Band 25_Ant 2	20M	QPSK	50	24	Right Tilted	0mm	DSI 0/2/7	Config0	26590	1905	23.81	24.70	1.227	-0.01	0.202	0.248
	LTE Band 25_Ant 2	20M	QPSK	1	99	Left Cheek	0mm	DSI 0/2/7	Config0	26590	1905	24.83	25.70	1.222	0.18	0.423	0.517
	LTE Band 25_Ant 2	20M	QPSK	50	24	Left Cheek	0mm	DSI 0/2/7	Config0	26590	1905	23.81	24.70	1.227	0.1	0.319	0.392
	LTE Band 25_Ant 2	20M	QPSK	1	99	Left Tilted	0mm	DSI 0/2/7	Config0	26590	1905	24.83	25.70	1.222	-0.08	0.288	0.352
	LTE Band 25_Ant 2	20M	QPSK	50	24	Left Tilted	0mm	DSI 0/2/7	Config0	26590	1905	23.81	24.70	1.227	-0.05	0.207	0.254
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Cheek	0mm	DSI 0/2/7	Config0	26865	831.5	24.88	25.70	1.208	-0.06	0.391	0.472
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Cheek	0mm	DSI 0/2/7	Config0	26865	831.5	23.97	24.70	1.183	-0.06	0.313	0.370
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Tilted	0mm	DSI 0/2/7	Config0	26865	831.5	24.88	25.70	1.208	-0.15	0.212	0.256
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Tilted	0mm	DSI 0/2/7	Config0	26865	831.5	23.97	24.70	1.183	0.01	0.171	0.202
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Cheek	0mm	DSI 0/2/7	Config0	26865	831.5	24.88	25.70	1.208	-0.05	0.422	0.510
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Cheek	0mm	DSI 0/2/7	Config0	26865	831.5	23.97	24.70	1.183	-0.08	0.342	0.405
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Tilted	0mm	DSI 0/2/7	Config0	26865	831.5	24.88	25.70	1.208	-0.05	0.251	0.303
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Tilted	0mm	DSI 0/2/7	Config0	26865	831.5	23.97	24.70	1.183	-0.07	0.204	0.241
	LTE Band 5B_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config0	20450	829	24.80	25.70	1.230	0.05	0.410	0.504
	LTE Band 26_Ant 1	15M	QPSK	1	74	Right Cheek	0mm	DSI 7	Config1	26865	831.5	22.19	23.30	1.291	-0.16	0.535	0.691
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Cheek	0mm	DSI 7	Config1	26865	831.5	22.32	23.30	1.253	-0.05	0.603	0.756
	LTE Band 26_Ant 1	15M	QPSK	1	74	Right Tilted	0mm	DSI 7	Config1	26865	831.5	22.19	23.30	1.291	-0.13	0.393	0.507
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Tilted	0mm	DSI 7	Config1	26865	831.5	22.32	23.30	1.253	-0.19	0.437	0.548
	LTE Band 26_Ant 1	15M	QPSK	1	74	Left Cheek	0mm	DSI 7	Config1	26865	831.5	22.19	23.30	1.291	-0.01	0.311	0.402
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Cheek	0mm	DSI 7	Config1	26865	831.5	22.32	23.30	1.253	-0.04	0.345	0.432
	LTE Band 26_Ant 1	15M	QPSK	1	74	Left Tilted	0mm	DSI 7	Config1	26865	831.5	22.19	23.30	1.291	-0.14	0.231	0.298
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Tilted	0mm	DSI 7	Config1	26865	831.5	22.32	23.30	1.253	-0.05	0.251	0.315
	LTE Band 5B_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	DSI 7	Config1	20450	829	22.23	23.30	1.279	-0.05	0.585	0.748
	LTE Band 26_Ant 1	15M	QPSK	1	74	Right Cheek	0mm	DSI 2	Config1	26865	831.5	22.19	24.10	1.552	-0.16	0.535	0.831
14	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Cheek	0mm	DSI 2	Config1	26865	831.5	22.32	24.10	1.507	-0.05	0.603	0.908
	LTE Band 26_Ant 1	15M	QPSK	1	74	Right Tilted	0mm	DSI 2	Config1	26865	831.5	22.19	24.10	1.552	-0.13	0.393	0.610
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Tilted	0mm	DSI 2	Config1	26865	831.5	22.32	24.10	1.507	-0.19	0.437	0.658
	LTE Band 26_Ant 1	15M	QPSK	1	74	Left Cheek	0mm	DSI 2	Config1	26865	831.5	22.19	24.10	1.552	-0.01	0.311	0.483
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Cheek	0mm	DSI 2	Config1	26865	831.5	22.32	24.10	1.507	-0.04	0.345	0.520
	LTE Band 26_Ant 1	15M	QPSK	1	74	Left Tilted	0mm	DSI 2	Config1	26865	831.5	22.19	24.10	1.552	-0.14	0.231	0.359
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Tilted	0mm	DSI 2	Config1	26865	831.5	22.32	24.10	1.507	-0.05	0.251	0.378
	LTE Band 5B_Ant 1	10M	QPSK	1	0	Right Cheek	0mm	DSI 2	Config1	20450	829	23.05	24.10	1.274	-0.05	0.705	0.898



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30_Ant 2	10M	QPSK	1	49	Right Cheek	0mm	DSI 0/2/7	Config0	27710	2310	21.50	22.50	1.259	-0.16	0.175	0.220
	LTE Band 30_Ant 2	10M	QPSK	25	12	Right Cheek	0mm	DSI 0/2/7	Config0	27710	2310	20.47	21.50	1.268	-0.15	0.137	0.174
	LTE Band 30_Ant 2	10M	QPSK	1	49	Right Tilted	0mm	DSI 0/2/7	Config0	27710	2310	21.50	22.50	1.259	0.11	0.075	0.094
	LTE Band 30_Ant 2	10M	QPSK	25	12	Right Tilted	0mm	DSI 0/2/7	Config0	27710	2310	20.47	21.50	1.268	-0.13	0.055	0.070
	LTE Band 30_Ant 2	10M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config0	27710	2310	21.50	22.50	1.259	0.01	0.085	0.107
	LTE Band 30_Ant 2	10M	QPSK	25	12	Left Cheek	0mm	DSI 0/2/7	Config0	27710	2310	20.47	21.50	1.268	0.1	0.060	0.076
	LTE Band 30_Ant 2	10M	QPSK	1	49	Left Tilted	0mm	DSI 0/2/7	Config0	27710	2310	21.50	22.50	1.259	-0.15	0.108	0.136
	LTE Band 30_Ant 2	10M	QPSK	25	12	Left Tilted	0mm	DSI 0/2/7	Config0	27710	2310	20.47	21.50	1.268	-0.01	0.082	0.104
	LTE Band 30_Ant 0	10M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config1	27710	2310	21.58	22.50	1.236	0.05	0.144	0.178
	LTE Band 30_Ant 0	10M	QPSK	25	0	Right Cheek	0mm	DSI 0/2/7	Config1	27710	2310	20.53	21.50	1.250	-0.06	0.114	0.143
	LTE Band 30_Ant 0	10M	QPSK	1	0	Right Tilted	0mm	DSI 0/2/7	Config1	27710	2310	21.58	22.50	1.236	-0.13	0.116	0.143
	LTE Band 30_Ant 0	10M	QPSK	25	0	Right Tilted	0mm	DSI 0/2/7	Config1	27710	2310	20.53	21.50	1.250	-0.01	0.091	0.114
15	LTE Band 30_Ant 0	10M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	27710	2310	21.58	22.50	1.236	0.01	0.224	0.277
	LTE Band 30_Ant 0	10M	QPSK	25	0	Left Cheek	0mm	DSI 0/2/7	Config1	27710	2310	20.53	21.50	1.250	-0.01	0.163	0.204
	LTE Band 30_Ant 0	10M	QPSK	1	0	Left Tilted	0mm	DSI 0/2/7	Config1	27710	2310	21.58	22.50	1.236	0.02	0.059	0.073
	LTE Band 30_Ant 0	10M	QPSK	25	0	Left Tilted	0mm	DSI 0/2/7	Config1	27710	2310	20.53	21.50	1.250	-0.15	0.045	0.056
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	DSI 0/2/7	Config0	132072	1720	24.80	25.70	1.230	-0.14	0.463	0.570
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	DSI 0/2/7	Config0	132322	1745	24.72	25.70	1.253	0.11	0.518	0.649
16	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Cheek	0mm	DSI 0/2/7	Config0	132572	1770	24.66	25.70	1.271	0.01	0.564	0.717
	LTE Band 66_Ant 2	20M	QPSK	50	50	Right Cheek	0mm	DSI 0/2/7	Config0	132072	1720	23.72	24.70	1.253	-0.13	0.356	0.446
	LTE Band 66_Ant 2	20M	QPSK	1	49	Right Tilted	0mm	DSI 0/2/7	Config0	132072	1720	24.80	25.70	1.230	0.09	0.223	0.274
	LTE Band 66_Ant 2	20M	QPSK	50	50	Right Tilted	0mm	DSI 0/2/7	Config0	132072	1720	23.72	24.70	1.253	-0.04	0.174	0.218
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config0	132072	1720	24.80	25.70	1.230	0.13	0.557	0.685
	LTE Band 66_Ant 2	20M	QPSK	50	50	Left Cheek	0mm	DSI 0/2/7	Config0	132072	1720	23.72	24.70	1.253	0.18	0.437	0.548
	LTE Band 66_Ant 2	20M	QPSK	1	49	Left Tilted	0mm	DSI 0/2/7	Config0	132072	1720	24.80	25.70	1.230	-0.06	0.199	0.245
	LTE Band 66_Ant 2	20M	QPSK	50	50	Left Tilted	0mm	DSI 0/2/7	Config0	132072	1720	23.72	24.70	1.253	-0.08	0.161	0.202
	LTE Band 66B_Ant 2	15M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	132047	1717.5	24.88	25.70	1.208	0.03	0.561	0.678
	LTE Band 66C_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	132072	1720	24.40	25.70	1.349	0.09	0.524	0.707
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config1	132072	1720	25.10	25.70	1.148	0.11	0.345	0.396
	LTE Band 66_Ant 0	20M	QPSK	50	50	Right Cheek	0mm	DSI 0/2/7	Config1	132072	1720	24.02	24.70	1.169	-0.06	0.248	0.290
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	DSI 0/2/7	Config1	132072	1720	25.10	25.70	1.148	-0.07	0.151	0.173
	LTE Band 66_Ant 0	20M	QPSK	50	50	Right Tilted	0mm	DSI 0/2/7	Config1	132072	1720	24.02	24.70	1.169	-0.02	0.107	0.125
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	132072	1720	25.10	25.70	1.148	0.1	0.486	0.558
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	132322	1745	25.04	25.70	1.164	0.05	0.468	0.545
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	132572	1770	24.93	25.70	1.194	0.05	0.412	0.492
	LTE Band 66_Ant 0	20M	QPSK	50	50	Left Cheek	0mm	DSI 0/2/7	Config1	132072	1720	24.02	24.70	1.169	0.05	0.365	0.427
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	DSI 0/2/7	Config1	132072	1720	25.10	25.70	1.148	-0.07	0.239	0.274
	LTE Band 66_Ant 0	20M	QPSK	50	50	Left Tilted	0mm	DSI 0/2/7	Config1	132072	1720	24.02	24.70	1.169	-0.15	0.166	0.194
	LTE Band 66B_Ant 2	15M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	132047	1717.5	24.82	25.70	1.225	0.05	0.447	0.547
	LTE Band 66C_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	132072	1720	24.66	25.70	1.271	0.06	0.428	0.544



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71_Ant 0	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	133322	683	24.61	25.70	1.285	-0.11	0.272	0.350
	LTE Band 71_Ant 0	20M	QPSK	50	24	Right Cheek	0mm	DSI 0/2/7	Config0	133322	683	23.56	24.70	1.300	-0.1	0.242	0.315
	LTE Band 71_Ant 0	20M	QPSK	1	0	Right Tilted	0mm	DSI 0/2/7	Config0	133322	683	24.61	25.70	1.285	0	0.123	0.158
	LTE Band 71_Ant 0	20M	QPSK	50	24	Right Tilted	0mm	DSI 0/2/7	Config0	133322	683	23.56	24.70	1.300	0.04	0.116	0.151
	LTE Band 71_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config0	133322	683	24.61	25.70	1.285	-0.02	0.299	0.384
	LTE Band 71_Ant 0	20M	QPSK	50	24	Left Cheek	0mm	DSI 0/2/7	Config0	133322	683	23.56	24.70	1.300	-0.11	0.268	0.348
	LTE Band 71_Ant 0	20M	QPSK	1	0	Left Tilted	0mm	DSI 0/2/7	Config0	133322	683	24.61	25.70	1.285	-0.15	0.133	0.171
	LTE Band 71_Ant 0	20M	QPSK	50	24	Left Tilted	0mm	DSI 0/2/7	Config0	133322	683	23.56	24.70	1.300	-0.1	0.130	0.169
	LTE Band 71_Ant 1	20M	QPSK	1	99	Right Cheek	0mm	DSI 7	Config1	133322	683	22.72	24.00	1.343	-0.02	0.626	0.841
	LTE Band 71_Ant 1	20M	QPSK	50	50	Right Cheek	0mm	DSI 7	Config1	133322	683	22.84	24.00	1.306	0.01	0.648	0.846
	LTE Band 71_Ant 1	20M	QPSK	100	0	Right Cheek	0mm	DSI 7	Config1	133322	683	22.78	24.00	1.324	-0.08	0.645	0.854
	LTE Band 71_Ant 1	20M	QPSK	1	99	Right Tilted	0mm	DSI 7	Config1	133322	683	22.72	24.00	1.343	-0.08	0.455	0.611
	LTE Band 71_Ant 1	20M	QPSK	50	50	Right Tilted	0mm	DSI 7	Config1	133322	683	22.84	24.00	1.306	-0.06	0.487	0.636
	LTE Band 71_Ant 1	20M	QPSK	1	99	Left Cheek	0mm	DSI 7	Config1	133322	683	22.72	24.00	1.343	-0.02	0.334	0.448
	LTE Band 71_Ant 1	20M	QPSK	50	50	Left Cheek	0mm	DSI 7	Config1	133322	683	22.84	24.00	1.306	-0.02	0.357	0.466
	LTE Band 71_Ant 1	20M	QPSK	1	99	Left Tilted	0mm	DSI 7	Config1	133322	683	22.72	24.00	1.343	-0.06	0.275	0.369
	LTE Band 71_Ant 1	20M	QPSK	50	50	Left Tilted	0mm	DSI 7	Config1	133322	683	22.84	24.00	1.306	-0.09	0.293	0.383
	LTE Band 71_Ant 1	20M	QPSK	1	99	Right Cheek	0mm	DSI 2	Config1	133322	683	22.72	24.70	1.578	-0.02	0.626	0.988
	LTE Band 71_Ant 1	20M	QPSK	50	50	Right Cheek	0mm	DSI 2	Config1	133322	683	22.84	24.70	1.535	0.01	0.648	0.994
17	LTE Band 71_Ant 1	20M	QPSK	100	0	Right Cheek	0mm	DSI 2	Config1	133322	683	22.78	24.70	1.556	-0.08	0.645	1.004
	LTE Band 71_Ant 1	20M	QPSK	1	99	Right Tilted	0mm	DSI 2	Config1	133322	683	22.72	24.70	1.578	-0.08	0.455	0.718
	LTE Band 71_Ant 1	20M	QPSK	50	50	Right Tilted	0mm	DSI 2	Config1	133322	683	22.84	24.70	1.535	-0.06	0.487	0.747
	LTE Band 71_Ant 1	20M	QPSK	1	99	Left Cheek	0mm	DSI 2	Config1	133322	683	22.72	24.70	1.578	-0.02	0.334	0.527
	LTE Band 71_Ant 1	20M	QPSK	50	50	Left Cheek	0mm	DSI 2	Config1	133322	683	22.84	24.70	1.535	-0.02	0.357	0.548
	LTE Band 71_Ant 1	20M	QPSK	1	99	Left Tilted	0mm	DSI 2	Config1	133322	683	22.72	24.70	1.578	-0.06	0.275	0.434
	LTE Band 71_Ant 1	20M	QPSK	50	50	Left Tilted	0mm	DSI 2	Config1	133322	683	22.84	24.70	1.535	-0.09	0.293	0.450

**<TDD LTE SAR>**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	40185	2549.5	24.09	25.00	1.233	62.90	1.006	0.03	0.352	0.437
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	39750	2506	24.08	25.00	1.236	62.90	1.006	0.11	0.180	0.224
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	40620	2593	23.94	25.00	1.276	62.90	1.006	0.11	0.366	0.470
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	41055	2636.5	23.95	25.00	1.274	62.90	1.006	0.1	0.437	0.560
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	41490	2680	23.89	25.00	1.291	62.90	1.006	0.11	0.499	0.648
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Cheek	0mm	DSI 0/2/7	Config0	40185	2549.5	23.02	24.00	1.253	62.90	1.006	0.07	0.285	0.359
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Tilted	0mm	DSI 0/2/7	Config0	40185	2549.5	24.09	25.00	1.233	62.90	1.006	-0.11	0.129	0.160
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Tilted	0mm	DSI 0/2/7	Config0	40185	2549.5	23.02	24.00	1.253	62.90	1.006	-0.06	0.118	0.149
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config0	40185	2549.5	24.09	25.00	1.233	62.90	1.006	-0.16	0.195	0.242
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Cheek	0mm	DSI 0/2/7	Config0	40185	2549.5	23.02	24.00	1.253	62.90	1.006	0.05	0.155	0.195
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Tilted	0mm	DSI 0/2/7	Config0	40185	2549.5	24.09	25.00	1.233	62.90	1.006	-0.05	0.203	0.252
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Tilted	0mm	DSI 0/2/7	Config0	40185	2549.5	23.02	24.00	1.253	62.90	1.006	0	0.162	0.204
	LTE Band 41HPUE_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	40185	2549.5	25.36	26.50	1.300	42.90	1.009	-0.12	0.471	0.618
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Right Cheek	0mm	DSI 0/2/7	Config0	40185	2549.5	23.66	25.00	1.361	62.90	1.006	0.03	0.466	0.638
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Cheek	0mm	DSI 0/2/7	Config1	41490	2680	24.63	25.00	1.089	62.90	1.006	-0.02	0.299	0.328
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Cheek	0mm	DSI 0/2/7	Config1	41490	2680	23.68	24.00	1.076	62.90	1.006	0	0.243	0.263
	LTE Band 41_Ant 0	20M	QPSK	1	49	Right Tilted	0mm	DSI 0/2/7	Config1	41490	2680	24.63	25.00	1.089	62.90	1.006	-0.15	0.247	0.271
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Tilted	0mm	DSI 0/2/7	Config1	41490	2680	23.68	24.00	1.076	62.90	1.006	-0.05	0.203	0.220
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config1	41490	2680	24.63	25.00	1.089	62.90	1.006	-0.1	0.496	0.543
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config1	39750	2506	24.26	25.00	1.186	62.90	1.006	0.02	0.648	0.773
18	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config1	40185	2549.5	24.18	25.00	1.208	62.90	1.006	0.06	0.713	0.866
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config1	40620	2593	24.22	25.00	1.197	62.90	1.006	-0.01	0.641	0.772
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config1	41055	2636.5	24.47	25.00	1.130	62.90	1.006	0.12	0.578	0.657
	LTE Band 41_Ant 0	20M	QPSK	50	0	Left Cheek	0mm	DSI 0/2/7	Config1	41490	2680	23.68	24.00	1.076	62.90	1.006	0.13	0.299	0.324
	LTE Band 41_Ant 0	20M	QPSK	100	0	Left Cheek	0mm	DSI 0/2/7	Config1	41490	2680	23.64	24.00	1.086	62.90	1.006	0.09	0.388	0.424
	LTE Band 41_Ant 0	20M	QPSK	1	49	Left Tilted	0mm	DSI 0/2/7	Config1	41490	2680	24.63	25.00	1.089	62.90	1.006	0.15	0.154	0.169
	LTE Band 41_Ant 0	20M	QPSK	50	0	Left Tilted	0mm	DSI 0/2/7	Config1	41490	2680	23.68	24.00	1.076	62.90	1.006	-0.1	0.093	0.101
	LTE Band 41HPUE_Ant 0	20M	QPSK	1	49	Left Cheek	0mm	DSI 0/2/7	Config1	41490	2680	25.88	26.50	1.153	42.90	1.009	0.06	0.663	0.772
	LTE Band 41C_Ant 0	20M	QPSK	1	0	Left Cheek	0mm	DSI 0/2/7	Config1	40620	2593	24.92	25.00	1.019	62.90	1.006	0.02	0.710	0.728

**<WLAN SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	ON	11	2462	10.90	11.00	1.023	98.80	1.012	-0.09	0.032	0.033
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	ON	11	2462	10.90	11.00	1.023	98.80	1.012	0.02	0.018	0.019
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	ON	11	2462	10.90	11.00	1.023	98.80	1.012	0	0.135	0.140
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	ON	11	2462	10.90	11.00	1.023	98.80	1.012	0.06	0.064	0.066
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+3(4)	ON	11	2462	13.70	14.00	1.072	98.66	1.014	-0.1	0.064	0.070
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+3(3)	ON	11	2462	16.40	16.50	1.023	98.66	1.014	-0.1	0.445	0.462
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+3(4)	ON	1	2412	13.60	14.00	1.096	98.66	1.014	0.15	0.116	0.129
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+3(3)	ON	1	2412	16.20	16.50	1.072	98.66	1.014	0.15	0.254	0.276
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+3(4)	ON	6	2437	13.60	14.00	1.096	98.66	1.014	0.13	0.082	0.091
19	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+3(3)	ON	6	2437	16.50	16.50	1.000	98.66	1.014	0.13	0.491	0.498
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4+3(4)	ON	11	2462	13.70	14.00	1.072	98.66	1.014	0.19	0.054	0.059
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4+3(3)	ON	11	2462	16.40	16.50	1.023	98.66	1.014	0.19	0.060	0.062
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+3(4)	ON	11	2462	13.70	14.00	1.072	98.66	1.014	0.17	0.277	0.301
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+3(3)	ON	11	2462	16.40	16.50	1.023	98.66	1.014	0.17	0.298	0.309
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4+3(4)	ON	11	2462	13.70	14.00	1.072	98.66	1.014	-0.09	0.128	0.139
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4+3(3)	ON	11	2462	16.40	16.50	1.023	98.66	1.014	-0.09	0.041	0.043



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 3	ON	54	5270	13.40	13.50	1.023	96.04	1.041	-0.19	0.167	0.178
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 3	ON	54	5270	13.40	13.50	1.023	96.04	1.041	0.15	0.010	0.011
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 3	ON	54	5270	13.40	13.50	1.023	96.04	1.041	-0.15	0.062	0.066
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 3	ON	54	5270	13.40	13.50	1.023	96.04	1.041	0.03	0.026	0.028
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(4)	ON	54	5270	14.20	14.50	1.072	95.89	1.043	0.11	0.105	0.117
	WLAN5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 4+3(3)	ON	54	5270	14.70	15.00	1.072	95.89	1.043	0.11	0.191	0.213
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 4+3(4)	ON	54	5270	14.20	14.50	1.072	95.89	1.043	0.07	0.126	0.141
	WLAN5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 4+3(3)	ON	54	5270	14.70	15.00	1.072	95.89	1.043	0.07	0.088	0.098
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 4+3(4)	ON	54	5270	14.20	14.50	1.072	95.89	1.043	0.12	0.219	0.245
	WLAN5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 4+3(3)	ON	54	5270	14.70	15.00	1.072	95.89	1.043	0.12	0.153	0.171
20	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(4)	ON	54	5270	14.20	14.50	1.072	95.89	1.043	0.09	0.239	0.267
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(3)	ON	54	5270	14.70	15.00	1.072	95.89	1.043	0.09	0.076	0.085
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(4)	ON	62	5310	12.60	13.00	1.096	95.89	1.043	-0.13	0.135	0.154
	WLAN5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 4+3(3)	ON	62	5310	12.60	13.00	1.096	95.89	1.043	-0.13	0.102	0.117
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 3	ON	138	5690	13.90	14.00	1.023	91.94	1.088	0.14	0.172	0.191
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 3	ON	138	5690	13.90	14.00	1.023	91.94	1.088	0.09	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3	ON	138	5690	13.90	14.00	1.023	91.94	1.088	0.14	0.139	0.155
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 3	ON	138	5690	13.90	14.00	1.023	91.94	1.088	0.14	0.002	0.002
21	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	ON	138	5690	15.80	16.00	1.047	91.96	1.087	0.15	0.249	0.283
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	ON	138	5690	14.90	15.00	1.023	91.96	1.087	0.15	0.095	0.106
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	ON	106	5530	10.80	11.00	1.047	91.96	1.087	-0.11	0.111	0.126
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	ON	106	5530	10.60	11.00	1.096	91.96	1.087	-0.11	0.023	0.027
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(4)	ON	122	5610	15.80	16.00	1.047	91.96	1.087	0.02	0.184	0.209
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 4+3(3)	ON	122	5610	14.90	15.00	1.023	91.96	1.087	0.02	0.047	0.052
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(4)	ON	138	5690	15.80	16.00	1.047	91.96	1.087	0.03	0.109	0.124
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 4+3(3)	ON	138	5690	14.90	15.00	1.023	91.96	1.087	0.03	0.020	0.022
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(4)	ON	138	5690	15.80	16.00	1.047	91.96	1.087	-0.05	0.132	0.150
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 4+3(3)	ON	138	5690	14.90	15.00	1.023	91.96	1.087	-0.05	0.164	0.182
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(4)	ON	138	5690	15.80	16.00	1.047	91.96	1.087	0.18	0.106	0.121
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 4+3(3)	ON	138	5690	14.90	15.00	1.023	91.96	1.087	0.18	0.006	0.007
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 3	ON	155	5775	12.30	12.50	1.047	91.94	1.088	0.05	0.131	0.149
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 3	ON	155	5775	12.30	12.50	1.047	91.94	1.088	0.12	0.029	0.033
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 3	ON	155	5775	12.30	12.50	1.047	91.94	1.088	0.16	0.118	0.134
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 3	ON	155	5775	12.30	12.50	1.047	91.94	1.088	0.14	0.013	0.015
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 4+3(4)	ON	165	5825	18.40	18.50	1.023	97.78	1.023	-0.15	0.265	0.277
	WLAN5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 4+3(3)	ON	165	5825	12.40	12.50	1.023	97.78	1.023	-0.15	0.241	0.252
	WLAN5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 4+3(4)	ON	165	5825	18.40	18.50	1.023	97.78	1.023	0.17	0.314	0.329
	WLAN5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 4+3(3)	ON	165	5825	12.40	12.50	1.023	97.78	1.023	0.17	0.046	0.048
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 4+3(4)	ON	165	5825	18.40	18.50	1.023	97.78	1.023	0.15	0.282	0.295
	WLAN5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 4+3(3)	ON	165	5825	12.40	12.50	1.023	97.78	1.023	0.15	0.218	0.228
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4+3(4)	ON	165	5825	18.40	18.50	1.023	97.78	1.023	-0.17	0.320	0.335
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4+3(3)	ON	165	5825	12.40	12.50	1.023	97.78	1.023	-0.17	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4+3(4)	ON	149	5745	18.40	18.50	1.023	97.78	1.023	-0.12	0.234	0.245
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4+3(3)	ON	149	5745	12.30	12.50	1.047	97.78	1.023	-0.12	0.001	0.001
22	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4+3(4)	ON	157	5785	17.90	18.00	1.023	97.78	1.023	-0.01	0.387	0.405
	WLAN5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 4+3(3)	ON	157	5785	12.40	12.50	1.023	97.78	1.023	-0.01	0.006	0.007

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 4	ON	78	2480	10.99	11.00	1.002	77.03	1.081	0.13	0.007	0.007
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 4	ON	78	2480	10.99	11.00	1.002	77.03	1.081	0.19	0.017	0.018
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4	ON	78	2480	10.99	11.00	1.002	77.03	1.081	0.18	0.145	0.157
23	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4	ON	0	2402	9.49	11.00	1.415	77.03	1.081	0.08	0.142	0.217
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4	ON	39	2441	10.25	11.00	1.188	77.03	1.081	0.01	0.125	0.161
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4	ON	78	2480	10.99	11.00	1.002	77.03	1.081	-0.17	0.063	0.068

13.2 Hotspot SAR
<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	DSI 6	Config0	128	824.2	28.22	29.00	1.197	0.02	0.531	0.635
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config0	128	824.2	28.22	29.00	1.197	-0.03	0.671	0.803
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config0	189	836.4	27.88	29.00	1.294	0.02	0.675	0.874
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config0	251	848.8	27.74	29.00	1.337	-0.06	0.587	0.785
	GSM850_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	DSI 6	Config0	128	824.2	28.22	29.00	1.197	-0.18	0.525	0.628
	GSM850_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	DSI 6	Config0	128	824.2	28.22	29.00	1.197	-0.08	0.552	0.661
	GSM850_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	DSI 6	Config0	128	824.2	28.22	29.00	1.197	-0.07	0.249	0.298
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	DSI 6	Config1	128	824.2	27.76	28.50	1.186	0.02	0.386	0.458
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config1	128	824.2	27.76	28.50	1.186	-0.13	0.520	0.617
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config1	189	836.4	27.24	28.50	1.337	-0.01	0.649	0.867
24	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config1	251	848.8	26.57	28.50	1.560	0	0.617	0.962
	GSM850_Ant 1	GPRS (4 Tx slots)	Left Side	10mm	DSI 6	Config1	128	824.2	27.76	28.50	1.186	0.16	0.175	0.208
	GSM850_Ant 1	GPRS (4 Tx slots)	Right Side	10mm	DSI 6	Config1	128	824.2	27.76	28.50	1.186	-0.13	0.291	0.345
	GSM850_Ant 1	GPRS (4 Tx slots)	Top Side	10mm	DSI 6	Config1	128	824.2	27.76	28.50	1.186	-0.11	0.214	0.254
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	DSI 6	Config1	661	1880	21.81	22.50	1.172	-0.13	0.257	0.301
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config1	661	1880	21.81	22.50	1.172	-0.13	0.587	0.688
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config1	512	1850.2	21.50	22.50	1.259	-0.07	0.472	0.594
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config1	810	1909.8	21.76	22.50	1.186	-0.04	0.666	0.790
	GSM1900_Ant 0	GPRS (4 Tx slots)	Left Side	10mm	DSI 6	Config1	661	1880	21.81	22.50	1.172	-0.06	0.138	0.162
	GSM1900_Ant 0	GPRS (4 Tx slots)	Right Side	10mm	DSI 6	Config1	661	1880	21.81	22.50	1.172	-0.16	0.072	0.084
	GSM1900_Ant 0	GPRS (4 Tx slots)	Bottom Side	10mm	DSI 6	Config1	661	1880	21.81	22.50	1.172	0.04	0.497	0.583
25	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	DSI 6	Config0	661	1880	25.88	27.00	1.294	-0.11	0.696	0.901
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	DSI 6	Config0	512	1850.2	25.33	27.00	1.469	-0.06	0.465	0.683
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	DSI 6	Config0	810	1909.8	25.88	27.00	1.294	-0.05	0.518	0.670
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	DSI 6	Config0	661	1880	25.88	27.00	1.294	-0.03	0.588	0.761
	GSM1900_Ant 2	GPRS (4 Tx slots)	Left Side	10mm	DSI 6	Config0	661	1880	25.88	27.00	1.294	-0.01	0.060	0.078
	GSM1900_Ant 2	GPRS (4 Tx slots)	Right Side	10mm	DSI 6	Config0	661	1880	25.88	27.00	1.294	-0.14	0.424	0.549
	GSM1900_Ant 2	GPRS (4 Tx slots)	Bottom Side	10mm	DSI 6	Config0	661	1880	25.88	27.00	1.294	-0.12	0.178	0.230

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 6	Config0	9538	1907.6	21.35	21.80	1.109	-0.02	0.569	0.631
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 6	Config0	9538	1907.6	21.35	21.80	1.109	0.03	0.613	0.680
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 6	Config0	9262	1852.4	21.11	21.80	1.172	-0.07	0.628	0.736
26	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 6	Config0	9400	1880	21.23	21.80	1.140	-0.07	0.741	0.845
	WCDMA II_Ant 2	RMC 12.2Kbps	Left Side	10mm	DSI 6	Config0	9538	1907.6	21.35	21.80	1.109	0.02	0.111	0.123
	WCDMA II_Ant 2	RMC 12.2Kbps	Right Side	10mm	DSI 6	Config0	9538	1907.6	21.35	21.80	1.109	-0.02	0.388	0.430
	WCDMA II_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	DSI 6	Config0	9538	1907.6	21.35	21.80	1.109	-0.18	0.563	0.624
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 6	Config1	9538	1907.6	19.46	19.80	1.081	0	0.289	0.313
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 6	Config1	9538	1907.6	19.46	19.80	1.081	-0.12	0.775	0.838
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 6	Config1	9262	1852.4	19.35	19.80	1.109	0.02	0.606	0.672
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 6	Config1	9400	1880	19.32	19.80	1.117	-0.03	0.621	0.694
	WCDMA II_Ant 0	RMC 12.2Kbps	Left Side	10mm	DSI 6	Config1	9538	1907.6	19.46	19.80	1.081	-0.1	0.084	0.091
	WCDMA II_Ant 0	RMC 12.2Kbps	Right Side	10mm	DSI 6	Config1	9538	1907.6	19.46	19.80	1.081	0.06	0.038	0.041
	WCDMA II_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	DSI 6	Config1	9538	1907.6	19.46	19.80	1.081	0.08	0.592	0.640
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 6	Config0	1513	1752.6	22.16	22.90	1.186	-0.13	0.714	0.847
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 6	Config0	1312	1712.4	22.08	22.90	1.208	-0.03	0.652	0.787
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 6	Config0	1413	1732.6	22.08	22.90	1.208	-0.05	0.664	0.802
27	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 6	Config0	1513	1752.6	22.16	22.90	1.186	-0.04	0.793	0.940
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 6	Config0	1312	1712.4	22.08	22.90	1.208	-0.04	0.759	0.917
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 6	Config0	1413	1732.6	22.08	22.90	1.208	-0.04	0.777	0.938
	WCDMA IV_Ant 2	RMC 12.2Kbps	Left Side	10mm	DSI 6	Config0	1513	1752.6	22.16	22.90	1.186	0.03	0.142	0.168
	WCDMA IV_Ant 2	RMC 12.2Kbps	Right Side	10mm	DSI 6	Config0	1513	1752.6	22.16	22.90	1.186	-0.04	0.467	0.554
	WCDMA IV_Ant 2	RMC 12.2Kbps	Bottom Side	10mm	DSI 6	Config0	1513	1752.6	22.16	22.90	1.186	-0.02	0.607	0.720
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 6	Config1	1513	1752.6	21.21	21.80	1.146	-0.08	0.439	0.503
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 6	Config1	1513	1752.6	21.21	21.80	1.146	-0.14	0.573	0.656
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 6	Config1	1312	1712.4	21.21	21.80	1.146	-0.1	0.552	0.632
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 6	Config1	1413	1732.6	21.20	21.80	1.148	-0.1	0.542	0.622
	WCDMA IV_Ant 0	RMC 12.2Kbps	Left Side	10mm	DSI 6	Config1	1513	1752.6	21.21	21.80	1.146	0.07	0.288	0.330
	WCDMA IV_Ant 0	RMC 12.2Kbps	Right Side	10mm	DSI 6	Config1	1513	1752.6	21.21	21.80	1.146	0.06	0.104	0.119
	WCDMA IV_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	DSI 6	Config1	1513	1752.6	21.21	21.80	1.146	0.17	0.506	0.580
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 0/6	Config0	4233	846.6	25.25	25.70	1.109	-0.06	0.532	0.590
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 0/6	Config0	4233	846.6	25.25	25.70	1.109	-0.13	0.718	0.796
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 0/6	Config0	4132	826.4	25.21	25.70	1.119	-0.11	0.728	0.815
28	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 0/6	Config0	4182	836.4	25.09	25.70	1.151	-0.1	0.710	0.817
	WCDMA V_Ant 0	RMC 12.2Kbps	Left Side	10mm	DSI 0/6	Config0	4233	846.6	25.25	25.70	1.109	-0.07	0.622	0.690
	WCDMA V_Ant 0	RMC 12.2Kbps	Right Side	10mm	DSI 0/6	Config0	4233	846.6	25.25	25.70	1.109	-0.13	0.560	0.621
	WCDMA V_Ant 0	RMC 12.2Kbps	Bottom Side	10mm	DSI 0/6	Config0	4233	846.6	25.25	25.70	1.109	-0.05	0.151	0.167
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	DSI 0/6	Config1	4233	846.6	24.86	25.70	1.213	0.12	0.434	0.527
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	DSI 0/6	Config1	4233	846.6	24.86	25.70	1.213	-0.11	0.643	0.780
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	DSI 0/6	Config1	4132	826.4	24.85	25.70	1.216	-0.12	0.541	0.658
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	DSI 0/6	Config1	4182	836.4	24.74	25.70	1.247	-0.11	0.590	0.736
	WCDMA V_Ant 1	RMC 12.2Kbps	Left Side	10mm	DSI 0/6	Config1	4233	846.6	24.86	25.70	1.213	-0.07	0.330	0.400
	WCDMA V_Ant 1	RMC 12.2Kbps	Right Side	10mm	DSI 0/6	Config1	4233	846.6	24.86	25.70	1.213	0.03	0.325	0.394
	WCDMA V_Ant 1	RMC 12.2Kbps	Top Side	10mm	DSI 0/6	Config1	4233	846.6	24.86	25.70	1.213	-0.08	0.254	0.308

<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Front	10mm	DSI 6	Config0	777	848.31	24.23	25.20	1.250	-0.11	0.571	0.714
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Back	10mm	DSI 6	Config0	777	848.31	24.23	25.20	1.250	-0.14	0.739	0.924
29	CDMA BC0_Ant 0	RTAP 153.6Kbps	Back	10mm	DSI 6	Config0	1013	824.7	24.15	25.20	1.274	-0.07	0.784	0.998
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Back	10mm	DSI 6	Config0	384	836.52	24.18	25.20	1.265	-0.08	0.768	0.971
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Left Side	10mm	DSI 6	Config0	777	848.31	24.23	25.20	1.250	-0.14	0.628	0.785
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Right Side	10mm	DSI 6	Config0	777	848.31	24.23	25.20	1.250	-0.17	0.515	0.644
	CDMA BC0_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	DSI 6	Config0	777	848.31	24.23	25.20	1.250	-0.08	0.223	0.279
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Front	10mm	DSI 0/6	Config1	777	848.31	24.33	25.70	1.371	-0.03	0.436	0.598
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Back	10mm	DSI 0/6	Config1	777	848.31	24.33	25.70	1.371	-0.06	0.652	0.894
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Back	10mm	DSI 0/6	Config1	1013	824.7	24.25	25.70	1.396	-0.02	0.635	0.887
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Back	10mm	DSI 0/6	Config1	384	836.52	24.28	25.70	1.387	-0.08	0.622	0.863
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Left Side	10mm	DSI 0/6	Config1	777	848.31	24.33	25.70	1.371	-0.12	0.374	0.513
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Right Side	10mm	DSI 0/6	Config1	777	848.31	24.33	25.70	1.371	-0.03	0.374	0.513
	CDMA BC0_Ant 1	RTAP 153.6Kbps	Top Side	10mm	DSI 0/6	Config1	777	848.31	24.33	25.70	1.371	-0.05	0.253	0.347
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Front	10mm	DSI 6	Config1	25	1851.25	18.96	19.30	1.081	-0.15	0.190	0.205
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Back	10mm	DSI 6	Config1	25	1851.25	18.96	19.30	1.081	0.09	0.458	0.495
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Back	10mm	DSI 6	Config1	600	1880	18.85	19.30	1.109	0.18	0.563	0.624
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Back	10mm	DSI 6	Config1	1175	1908.75	18.72	19.30	1.143	0.18	0.724	0.827
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Left Side	10mm	DSI 6	Config1	25	1851.25	18.96	19.30	1.081	0.1	0.072	0.078
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Right Side	10mm	DSI 6	Config1	25	1851.25	18.96	19.30	1.081	-0.09	0.019	0.021
	CDMA BC1_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	DSI 6	Config1	25	1851.25	18.96	19.30	1.081	0.08	0.346	0.374
	CDMA BC1_Ant 2	RTAP 153.6Kbps	Front	10mm	DSI 6	Config0	25	1851.25	21.16	22.00	1.213	-0.05	0.619	0.751
	CDMA BC1_Ant 2	RTAP 153.6Kbps	Back	10mm	DSI 6	Config0	25	1851.25	21.16	22.00	1.213	-0.03	0.690	0.837
30	CDMA BC1_Ant 2	RTAP 153.6Kbps	Back	10mm	DSI 6	Config0	600	1880	21.15	22.00	1.216	-0.05	0.821	0.998
	CDMA BC1_Ant 2	RTAP 153.6Kbps	Back	10mm	DSI 6	Config0	1175	1908.75	20.90	22.00	1.288	-0.08	0.707	0.911
	CDMA BC1_Ant 2	RTAP 153.6Kbps	Left Side	10mm	DSI 6	Config0	25	1851.25	21.16	22.00	1.213	-0.12	0.094	0.114
	CDMA BC1_Ant 2	RTAP 153.6Kbps	Right Side	10mm	DSI 6	Config0	25	1851.25	21.16	22.00	1.213	-0.06	0.323	0.392
	CDMA BC1_Ant 2	RTAP 153.6Kbps	Bottom Side	10mm	DSI 6	Config0	25	1851.25	21.16	22.00	1.213	-0.07	0.522	0.633
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Front	10mm	DSI 6	Config0	580	820.5	24.12	25.20	1.282	-0.04	0.594	0.762
31	CDMA BC10_Ant 0	RTAP 153.6Kbps	Back	10mm	DSI 6	Config0	580	820.5	24.12	25.20	1.282	-0.12	0.778	0.998
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Left Side	10mm	DSI 6	Config0	580	820.5	24.12	25.20	1.282	-0.15	0.686	0.880
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Right Side	10mm	DSI 6	Config0	580	820.5	24.12	25.20	1.282	-0.12	0.538	0.690
	CDMA BC10_Ant 0	RTAP 153.6Kbps	Bottom Side	10mm	DSI 6	Config0	580	820.5	24.12	25.20	1.282	-0.02	0.196	0.251
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Front	10mm	DSI 0/6	Config1	580	820.5	24.22	25.70	1.406	-0.17	0.422	0.593
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Back	10mm	DSI 0/6	Config1	580	820.5	24.22	25.70	1.406	-0.08	0.631	0.887
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Left Side	10mm	DSI 0/6	Config1	580	820.5	24.22	25.70	1.406	-0.1	0.463	0.651
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Right Side	10mm	DSI 0/6	Config1	580	820.5	24.22	25.70	1.406	-0.03	0.393	0.553
	CDMA BC10_Ant 1	RTAP 153.6Kbps	Top Side	10mm	DSI 0/6	Config1	580	820.5	24.22	25.70	1.406	0	0.207	0.291



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 6	Config0	21100	2535	16.64	17.50	1.219	-0.16	0.334	0.407
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 6	Config0	21100	2535	16.58	17.50	1.236	-0.14	0.349	0.431
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 6	Config0	21100	2535	16.64	17.50	1.219	-0.13	0.705	0.859
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 6	Config0	20850	2510	16.57	17.50	1.239	-0.06	0.728	0.902
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 6	Config0	21350	2560	16.57	17.50	1.239	-0.03	0.619	0.767
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 6	Config0	21100	2535	16.58	17.50	1.236	-0.17	0.761	0.941
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 6	Config0	20850	2510	16.57	17.50	1.239	-0.14	0.776	0.961
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 6	Config0	21350	2560	16.57	17.50	1.239	-0.15	0.658	0.815
	LTE Band 7_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 6	Config0	21100	2535	16.56	17.50	1.242	-0.14	0.773	0.960
	LTE Band 7_Ant 2	20M	QPSK	1	99	Left Side	10mm	DSI 6	Config0	21100	2535	16.64	17.50	1.219	-0.09	0.002	0.002
	LTE Band 7_Ant 2	20M	QPSK	50	50	Left Side	10mm	DSI 6	Config0	21100	2535	16.58	17.50	1.236	-0.16	0.002	0.003
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Side	10mm	DSI 6	Config0	21100	2535	16.64	17.50	1.219	0.02	0.755	0.920
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Side	10mm	DSI 6	Config0	20850	2510	16.57	17.50	1.239	0.06	0.734	0.909
	LTE Band 7_Ant 2	20M	QPSK	1	99	Right Side	10mm	DSI 6	Config0	21350	2560	16.57	17.50	1.239	0.01	0.686	0.850
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Side	10mm	DSI 6	Config0	21100	2535	16.58	17.50	1.236	0.1	0.775	0.958
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Side	10mm	DSI 6	Config0	20850	2510	16.57	17.50	1.239	0.04	0.744	0.922
	LTE Band 7_Ant 2	20M	QPSK	50	50	Right Side	10mm	DSI 6	Config0	21350	2560	16.57	17.50	1.239	0.01	0.693	0.858
32	LTE Band 7_Ant 2	20M	QPSK	100	0	Right Side	10mm	DSI 6	Config0	21100	2535	16.56	17.50	1.242	0.04	0.777	0.965
	LTE Band 7_Ant 2	20M	QPSK	1	99	Bottom Side	10mm	DSI 6	Config0	21100	2535	16.64	17.50	1.219	0.03	0.219	0.267
	LTE Band 7_Ant 2	20M	QPSK	50	50	Bottom Side	10mm	DSI 6	Config0	21100	2535	16.58	17.50	1.236	-0.09	0.231	0.286
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config0	21100	2535	16.86	18.00	1.300	0.19	0.734	0.954
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	0	0.447	0.551
	LTE Band 7_Ant 0	20M	QPSK	50	24	Front	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	-0.1	0.472	0.582
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	0.03	0.515	0.635
	LTE Band 7_Ant 0	20M	QPSK	50	24	Back	10mm	DSI 6	Config1	21100	2535	20.11	21.00	1.227	-0.08	0.596	0.732
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 6	Config1	20850	2510	20.07	21.00	1.239	-0.03	0.746	0.924
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 6	Config1	21350	2560	20.07	21.00	1.239	-0.06	0.493	0.611
	LTE Band 7_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 6	Config1	21100	2535	20.10	21.00	1.230	-0.08	0.603	0.742
	LTE Band 7_Ant 0	20M	QPSK	1	99	Left Side	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	-0.01	0.512	0.631
	LTE Band 7_Ant 0	20M	QPSK	50	24	Left Side	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	-0.03	0.517	0.638
	LTE Band 7_Ant 0	20M	QPSK	1	99	Right Side	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	-0.12	0.015	0.018
	LTE Band 7_Ant 0	20M	QPSK	50	24	Right Side	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	-0.11	0.015	0.018
	LTE Band 7_Ant 0	20M	QPSK	1	99	Bottom Side	10mm	DSI 6	Config1	21100	2535	20.09	21.00	1.233	0.12	0.562	0.693
	LTE Band 7_Ant 0	20M	QPSK	50	24	Bottom Side	10mm	DSI 6	Config1	21100	2535	20.11	21.00	1.227	0.11	0.642	0.788
	LTE Band 7_Ant 0	20M	QPSK	50	50	Bottom Side	10mm	DSI 6	Config1	20850	2510	20.07	21.00	1.239	0.18	0.772	0.956
	LTE Band 7_Ant 0	20M	QPSK	50	50	Bottom Side	10mm	DSI 6	Config1	21350	2560	20.07	21.00	1.239	0.1	0.454	0.562
	LTE Band 7_Ant 0	20M	QPSK	100	0	Bottom Side	10mm	DSI 6	Config1	21100	2535	20.10	21.00	1.230	0.06	0.645	0.794
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	DSI 6	Config1	21100	2535	19.95	21.00	1.274	0.15	0.703	0.895



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_Ant 0	10M	QPSK	1	49	Front	10mm	DSI 0/6	Config0	23095	707.5	24.77	25.70	1.239	-0.12	0.439	0.544
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 0/6	Config0	23095	707.5	23.73	24.70	1.250	-0.12	0.417	0.521
	LTE Band 12_Ant 0	10M	QPSK	1	49	Back	10mm	DSI 0/6	Config0	23095	707.5	24.77	25.70	1.239	-0.07	0.562	0.696
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 0/6	Config0	23095	707.5	23.73	24.70	1.250	-0.08	0.469	0.586
	LTE Band 12_Ant 0	10M	QPSK	1	49	Left Side	10mm	DSI 0/6	Config0	23095	707.5	24.77	25.70	1.239	-0.13	0.441	0.546
	LTE Band 12_Ant 0	10M	QPSK	25	12	Left Side	10mm	DSI 0/6	Config0	23095	707.5	23.73	24.70	1.250	-0.18	0.356	0.445
	LTE Band 12_Ant 0	10M	QPSK	1	49	Right Side	10mm	DSI 0/6	Config0	23095	707.5	24.77	25.70	1.239	-0.1	0.257	0.318
	LTE Band 12_Ant 0	10M	QPSK	25	12	Right Side	10mm	DSI 0/6	Config0	23095	707.5	23.73	24.70	1.250	-0.11	0.201	0.251
	LTE Band 12_Ant 0	10M	QPSK	1	49	Bottom Side	10mm	DSI 0/6	Config0	23095	707.5	24.77	25.70	1.239	-0.08	0.123	0.152
	LTE Band 12_Ant 0	10M	QPSK	25	12	Bottom Side	10mm	DSI 0/6	Config0	23095	707.5	23.73	24.70	1.250	-0.07	0.100	0.125
	LTE Band 12_Ant 1	10M	QPSK	1	49	Front	10mm	DSI 0/6	Config1	23095	707.5	24.61	25.70	1.285	-0.12	0.336	0.432
	LTE Band 12_Ant 1	10M	QPSK	25	12	Front	10mm	DSI 0/6	Config1	23095	707.5	23.56	24.70	1.300	-0.15	0.265	0.345
33	LTE Band 12_Ant 1	10M	QPSK	1	49	Back	10mm	DSI 0/6	Config1	23095	707.5	24.61	25.70	1.285	-0.12	0.599	0.770
	LTE Band 12_Ant 1	10M	QPSK	25	12	Back	10mm	DSI 0/6	Config1	23095	707.5	23.56	24.70	1.300	-0.1	0.483	0.628
	LTE Band 12_Ant 1	10M	QPSK	1	49	Left Side	10mm	DSI 0/6	Config1	23095	707.5	24.61	25.70	1.285	-0.01	0.376	0.483
	LTE Band 12_Ant 1	10M	QPSK	25	12	Left Side	10mm	DSI 0/6	Config1	23095	707.5	23.56	24.70	1.300	-0.04	0.279	0.363
	LTE Band 12_Ant 1	10M	QPSK	1	49	Right Side	10mm	DSI 0/6	Config1	23095	707.5	24.61	25.70	1.285	0	0.152	0.195
	LTE Band 12_Ant 1	10M	QPSK	25	12	Right Side	10mm	DSI 0/6	Config1	23095	707.5	23.56	24.70	1.300	-0.06	0.107	0.139
	LTE Band 12_Ant 1	10M	QPSK	1	49	Top Side	10mm	DSI 0/6	Config1	23095	707.5	24.61	25.70	1.285	-0.07	0.133	0.171
	LTE Band 12_Ant 1	10M	QPSK	25	12	Top Side	10mm	DSI 0/6	Config1	23095	707.5	23.56	24.70	1.300	-0.06	0.104	0.135
	LTE Band 13_Ant 0	10M	QPSK	1	25	Front	10mm	DSI 0/6	Config0	23230	782	24.73	25.50	1.194	-0.09	0.429	0.512
	LTE Band 13_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 0/6	Config0	23230	782	23.73	24.50	1.194	-0.12	0.348	0.416
34	LTE Band 13_Ant 0	10M	QPSK	1	25	Back	10mm	DSI 0/6	Config0	23230	782	24.73	25.50	1.194	-0.07	0.536	0.640
	LTE Band 13_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 0/6	Config0	23230	782	23.73	24.50	1.194	-0.11	0.438	0.523
	LTE Band 13_Ant 0	10M	QPSK	1	25	Left Side	10mm	DSI 0/6	Config0	23230	782	24.73	25.50	1.194	-0.1	0.417	0.498
	LTE Band 13_Ant 0	10M	QPSK	25	12	Left Side	10mm	DSI 0/6	Config0	23230	782	23.73	24.50	1.194	-0.11	0.340	0.406
	LTE Band 13_Ant 0	10M	QPSK	1	25	Right Side	10mm	DSI 0/6	Config0	23230	782	24.73	25.50	1.194	-0.16	0.393	0.469
	LTE Band 13_Ant 0	10M	QPSK	25	12	Right Side	10mm	DSI 0/6	Config0	23230	782	23.73	24.50	1.194	-0.17	0.319	0.381
	LTE Band 13_Ant 0	10M	QPSK	1	25	Bottom Side	10mm	DSI 0/6	Config0	23230	782	24.73	25.50	1.194	-0.05	0.139	0.166
	LTE Band 13_Ant 0	10M	QPSK	25	12	Bottom Side	10mm	DSI 0/6	Config0	23230	782	23.73	24.50	1.194	-0.08	0.111	0.133
	LTE Band 14_Ant 0	10M	QPSK	1	0	Front	10mm	DSI 0/6	Config0	23330	793	24.88	25.70	1.208	-0.11	0.483	0.583
	LTE Band 14_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 0/6	Config0	23330	793	23.89	24.70	1.205	-0.08	0.396	0.477
35	LTE Band 14_Ant 0	10M	QPSK	1	0	Back	10mm	DSI 0/6	Config0	23330	793	24.88	25.70	1.208	-0.03	0.627	0.757
	LTE Band 14_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 0/6	Config0	23330	793	23.89	24.70	1.205	-0.1	0.505	0.609
	LTE Band 14_Ant 0	10M	QPSK	1	0	Left Side	10mm	DSI 0/6	Config0	23330	793	24.88	25.70	1.208	-0.11	0.519	0.627
	LTE Band 14_Ant 0	10M	QPSK	25	12	Left Side	10mm	DSI 0/6	Config0	23330	793	23.89	24.70	1.205	-0.1	0.420	0.506
	LTE Band 14_Ant 0	10M	QPSK	1	0	Right Side	10mm	DSI 0/6	Config0	23330	793	24.88	25.70	1.208	-0.13	0.438	0.529
	LTE Band 14_Ant 0	10M	QPSK	25	12	Right Side	10mm	DSI 0/6	Config0	23330	793	23.89	24.70	1.205	-0.07	0.370	0.446
	LTE Band 14_Ant 0	10M	QPSK	1	0	Bottom Side	10mm	DSI 0/6	Config0	23330	793	24.88	25.70	1.208	-0.13	0.138	0.167
	LTE Band 14_Ant 0	10M	QPSK	25	12	Bottom Side	10mm	DSI 0/6	Config0	23330	793	23.89	24.70	1.205	-0.02	0.118	0.142



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 6	Config0	26590	1905	21.59	22.70	1.291	-0.1	0.549	0.709
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 6	Config0	26590	1905	21.64	22.70	1.276	-0.05	0.580	0.740
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 6	Config0	26140	1860	21.58	22.70	1.294	-0.06	0.502	0.650
36	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 6	Config0	26340	1880	21.64	22.70	1.276	-0.04	0.697	0.890
	LTE Band 25_Ant 2	20M	QPSK	100	0	Front	10mm	DSI 6	Config0	26590	1905	21.62	22.70	1.282	-0.08	0.545	0.699
	LTE Band 25_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 6	Config0	26590	1905	21.59	22.70	1.291	0	0.544	0.702
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	DSI 6	Config0	26590	1905	21.64	22.70	1.276	0	0.565	0.721
	LTE Band 25_Ant 2	20M	QPSK	1	99	Left Side	10mm	DSI 6	Config0	26590	1905	21.59	22.70	1.291	-0.08	0.139	0.179
	LTE Band 25_Ant 2	20M	QPSK	50	24	Left Side	10mm	DSI 6	Config0	26590	1905	21.64	22.70	1.276	-0.07	0.119	0.152
	LTE Band 25_Ant 2	20M	QPSK	1	99	Right Side	10mm	DSI 6	Config0	26590	1905	21.59	22.70	1.291	-0.11	0.365	0.471
	LTE Band 25_Ant 2	20M	QPSK	50	24	Right Side	10mm	DSI 6	Config0	26590	1905	21.64	22.70	1.276	-0.03	0.356	0.454
	LTE Band 25_Ant 2	20M	QPSK	1	99	Bottom Side	10mm	DSI 6	Config0	26590	1905	21.59	22.70	1.291	-0.07	0.241	0.311
	LTE Band 25_Ant 2	20M	QPSK	50	24	Bottom Side	10mm	DSI 6	Config0	26590	1905	21.64	22.70	1.276	-0.05	0.240	0.306
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	0.02	0.276	0.313
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	0.04	0.290	0.328
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	-0.13	0.564	0.639
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	-0.16	0.591	0.669
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 6	Config1	26340	1880	18.91	19.50	1.146	-0.01	0.657	0.753
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 6	Config1	26590	1905	18.86	19.50	1.159	-0.02	0.698	0.809
	LTE Band 25_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	-0.19	0.600	0.679
	LTE Band 25_Ant 0	20M	QPSK	1	0	Left Side	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	0.08	0.103	0.117
	LTE Band 25_Ant 0	20M	QPSK	50	0	Left Side	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	-0.05	0.110	0.125
	LTE Band 25_Ant 0	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	0.19	0.061	0.069
	LTE Band 25_Ant 0	20M	QPSK	50	0	Right Side	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	-0.12	0.065	0.074
	LTE Band 25_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	0.15	0.528	0.598
	LTE Band 25_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	DSI 6	Config1	26140	1860	18.96	19.50	1.132	0.08	0.556	0.630

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	DSI 0/6	Config0	26865	831.5	24.88	25.70	1.208	-0.15	0.454	0.548
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	10mm	DSI 0/6	Config0	26865	831.5	23.97	24.70	1.183	-0.08	0.386	0.457
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	DSI 0/6	Config0	26865	831.5	24.88	25.70	1.208	-0.14	0.520	0.628
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	10mm	DSI 0/6	Config0	26865	831.5	23.97	24.70	1.183	-0.11	0.454	0.537
	LTE Band 26_Ant 0	15M	QPSK	1	74	Left Side	10mm	DSI 0/6	Config0	26865	831.5	24.88	25.70	1.208	-0.06	0.431	0.521
	LTE Band 26_Ant 0	15M	QPSK	36	20	Left Side	10mm	DSI 0/6	Config0	26865	831.5	23.97	24.70	1.183	-0.04	0.368	0.435
	LTE Band 26_Ant 0	15M	QPSK	1	74	Right Side	10mm	DSI 0/6	Config0	26865	831.5	24.88	25.70	1.208	-0.11	0.367	0.443
	LTE Band 26_Ant 0	15M	QPSK	36	20	Right Side	10mm	DSI 0/6	Config0	26865	831.5	23.97	24.70	1.183	-0.08	0.308	0.364
	LTE Band 26_Ant 0	15M	QPSK	1	74	Bottom Side	10mm	DSI 0/6	Config0	26865	831.5	24.88	25.70	1.208	-0.16	0.196	0.237
	LTE Band 26_Ant 0	15M	QPSK	36	20	Bottom Side	10mm	DSI 0/6	Config0	26865	831.5	23.97	24.70	1.183	-0.18	0.151	0.179
	LTE Band 5B_Ant 0	10M	QPSK	1	0	Back	10mm	DSI 0/6	Config0	20450	829	24.80	25.70	1.230	-0.11	0.510	0.627
	LTE Band 26_Ant 1	15M	QPSK	1	74	Front	10mm	DSI 0/6	Config1	26865	831.5	24.52	25.70	1.312	0.15	0.353	0.463
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	10mm	DSI 0/6	Config1	26865	831.5	23.66	24.70	1.271	-0.03	0.297	0.377
37	LTE Band 26_Ant 1	15M	QPSK	1	74	Back	10mm	DSI 0/6	Config1	26865	831.5	24.52	25.70	1.312	-0.16	0.531	0.697
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	10mm	DSI 0/6	Config1	26865	831.5	23.66	24.70	1.271	-0.02	0.456	0.579
	LTE Band 26_Ant 1	15M	QPSK	1	74	Left Side	10mm	DSI 0/6	Config1	26865	831.5	24.52	25.70	1.312	-0.02	0.230	0.302
	LTE Band 26_Ant 1	15M	QPSK	36	20	Left Side	10mm	DSI 0/6	Config1	26865	831.5	23.66	24.70	1.271	-0.02	0.209	0.266
	LTE Band 26_Ant 1	15M	QPSK	1	74	Right Side	10mm	DSI 0/6	Config1	26865	831.5	24.52	25.70	1.312	-0.07	0.228	0.299
	LTE Band 26_Ant 1	15M	QPSK	36	20	Right Side	10mm	DSI 0/6	Config1	26865	831.5	23.66	24.70	1.271	-0.06	0.199	0.253
	LTE Band 26_Ant 1	15M	QPSK	1	74	Top Side	10mm	DSI 0/6	Config1	26865	831.5	24.52	25.70	1.312	0.11	0.220	0.289
	LTE Band 26_Ant 1	15M	QPSK	36	20	Top Side	10mm	DSI 0/6	Config1	26865	831.5	23.66	24.70	1.271	-0.04	0.179	0.227
	LTE Band 5B_Ant 1	10M	QPSK	1	0	Back	10mm	DSI 0/6	Config1	20450	829	24.52	25.70	1.312	-0.09	0.515	0.676



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30_Ant 2	10M	QPSK	1	49	Front	10mm	DSI 6	Config0	27710	2310	19.28	20.00	1.180	-0.09	0.344	0.406
	LTE Band 30_Ant 2	10M	QPSK	25	12	Front	10mm	DSI 6	Config0	27710	2310	19.22	20.00	1.197	-0.11	0.349	0.418
	LTE Band 30_Ant 2	10M	QPSK	1	49	Back	10mm	DSI 6	Config0	27710	2310	19.28	20.00	1.180	-0.08	0.717	0.846
	LTE Band 30_Ant 2	10M	QPSK	25	12	Back	10mm	DSI 6	Config0	27710	2310	19.22	20.00	1.197	-0.02	0.698	0.835
	LTE Band 30_Ant 2	10M	QPSK	50	0	Back	10mm	DSI 6	Config0	27710	2310	19.23	20.00	1.194	-0.04	0.693	0.827
	LTE Band 30_Ant 2	10M	QPSK	1	49	Left Side	10mm	DSI 6	Config0	27710	2310	19.28	20.00	1.180	-0.13	0.026	0.031
	LTE Band 30_Ant 2	10M	QPSK	25	12	Left Side	10mm	DSI 6	Config0	27710	2310	19.22	20.00	1.197	-0.14	0.024	0.029
	LTE Band 30_Ant 2	10M	QPSK	1	49	Right Side	10mm	DSI 6	Config0	27710	2310	19.28	20.00	1.180	0.11	0.669	0.790
	LTE Band 30_Ant 2	10M	QPSK	25	12	Right Side	10mm	DSI 6	Config0	27710	2310	19.22	20.00	1.197	0.12	0.668	0.799
	LTE Band 30_Ant 2	10M	QPSK	1	49	Bottom Side	10mm	DSI 6	Config0	27710	2310	19.28	20.00	1.180	0.01	0.361	0.426
	LTE Band 30_Ant 2	10M	QPSK	25	12	Bottom Side	10mm	DSI 6	Config0	27710	2310	19.22	20.00	1.197	0	0.367	0.439
	LTE Band 30_Ant 0	10M	QPSK	1	0	Front	10mm	DSI 6	Config1	27710	2310	18.06	18.90	1.213	0.06	0.190	0.231
	LTE Band 30_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 6	Config1	27710	2310	18.10	18.90	1.202	0.08	0.195	0.234
	LTE Band 30_Ant 0	10M	QPSK	1	0	Back	10mm	DSI 6	Config1	27710	2310	18.06	18.90	1.213	-0.02	0.681	0.826
38	LTE Band 30_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 6	Config1	27710	2310	18.10	18.90	1.202	-0.04	0.714	0.858
	LTE Band 30_Ant 0	10M	QPSK	50	0	Back	10mm	DSI 6	Config1	27710	2310	18.09	18.90	1.205	-0.03	0.709	0.854
	LTE Band 30_Ant 0	10M	QPSK	1	0	Left Side	10mm	DSI 6	Config1	27710	2310	18.06	18.90	1.213	-0.02	0.152	0.184
	LTE Band 30_Ant 0	10M	QPSK	25	12	Left Side	10mm	DSI 6	Config1	27710	2310	18.10	18.90	1.202	0.05	0.156	0.188
	LTE Band 30_Ant 0	10M	QPSK	1	0	Right Side	10mm	DSI 6	Config1	27710	2310	18.06	18.90	1.213	0.14	0.005	0.006
	LTE Band 30_Ant 0	10M	QPSK	25	12	Right Side	10mm	DSI 6	Config1	27710	2310	18.10	18.90	1.202	-0.1	0.006	0.007
	LTE Band 30_Ant 0	10M	QPSK	1	0	Bottom Side	10mm	DSI 6	Config1	27710	2310	18.06	18.90	1.213	0.1	0.645	0.783
	LTE Band 30_Ant 0	10M	QPSK	25	12	Bottom Side	10mm	DSI 6	Config1	27710	2310	18.10	18.90	1.202	0.11	0.681	0.819
	LTE Band 30_Ant 0	10M	QPSK	50	0	Bottom Side	10mm	DSI 6	Config1	27710	2310	18.09	18.90	1.205	0.17	0.671	0.809



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 6	Config0	132072	1720	21.93	22.90	1.250	-0.05	0.572	0.715
	LTE Band 66_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 6	Config0	132072	1720	21.89	22.90	1.262	-0.1	0.570	0.719
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	132072	1720	21.93	22.90	1.250	-0.04	0.694	0.868
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	132322	1745	21.91	22.90	1.256	-0.07	0.700	0.879
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	132572	1770	21.87	22.90	1.268	-0.04	0.746	0.946
	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 6	Config0	132072	1720	21.89	22.90	1.262	-0.06	0.693	0.874
	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 6	Config0	132322	1745	21.89	22.90	1.262	-0.05	0.709	0.895
39	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 6	Config0	132572	1770	21.71	22.90	1.315	-0.07	0.729	0.959
	LTE Band 66_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 6	Config0	132072	1720	21.94	22.90	1.247	-0.08	0.701	0.874
	LTE Band 66_Ant 2	20M	QPSK	1	0	Left Side	10mm	DSI 6	Config0	132072	1720	21.93	22.90	1.250	0.09	0.096	0.120
	LTE Band 66_Ant 2	20M	QPSK	50	50	Left Side	10mm	DSI 6	Config0	132072	1720	21.89	22.90	1.262	0.09	0.098	0.124
	LTE Band 66_Ant 2	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config0	132072	1720	21.93	22.90	1.250	0.05	0.385	0.481
	LTE Band 66_Ant 2	20M	QPSK	50	50	Right Side	10mm	DSI 6	Config0	132072	1720	21.89	22.90	1.262	0.07	0.400	0.505
	LTE Band 66_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	DSI 6	Config0	132072	1720	21.93	22.90	1.250	-0.03	0.536	0.670
	LTE Band 66_Ant 2	20M	QPSK	50	50	Bottom Side	10mm	DSI 6	Config0	132072	1720	21.89	22.90	1.262	-0.02	0.538	0.679
	LTE Band 66B_Ant 2	15M	QPSK	1	0	Back	10mm	DSI 6	Config0	132047	1717.5	22.63	23.40	1.194	0.02	0.725	0.866
	LTE Band 66C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	132072	1720	22.12	23.40	1.343	-0.01	0.712	0.956
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 6	Config1	132072	1720	22.08	22.70	1.153	-0.03	0.483	0.557
	LTE Band 66_Ant 0	20M	QPSK	50	50	Front	10mm	DSI 6	Config1	132072	1720	22.04	22.70	1.164	-0.01	0.457	0.532
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	132072	1720	22.08	22.70	1.153	-0.14	0.604	0.697
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	132322	1745	22.04	22.70	1.164	-0.1	0.582	0.678
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	132572	1770	21.94	22.70	1.191	-0.11	0.682	0.812
	LTE Band 66_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 6	Config1	132072	1720	22.04	22.70	1.164	-0.1	0.567	0.660
	LTE Band 66_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 6	Config1	132072	1720	22.09	22.70	1.151	-0.09	0.588	0.677
	LTE Band 66_Ant 0	20M	QPSK	1	0	Left Side	10mm	DSI 6	Config1	132072	1720	22.08	22.70	1.153	0.14	0.248	0.286
	LTE Band 66_Ant 0	20M	QPSK	50	50	Left Side	10mm	DSI 6	Config1	132072	1720	22.04	22.70	1.164	0.02	0.231	0.269
	LTE Band 66_Ant 0	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config1	132072	1720	22.08	22.70	1.153	-0.01	0.118	0.136
	LTE Band 66_Ant 0	20M	QPSK	50	50	Right Side	10mm	DSI 6	Config1	132072	1720	22.04	22.70	1.164	-0.05	0.101	0.118
	LTE Band 66_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	DSI 6	Config1	132072	1720	22.08	22.70	1.153	0.02	0.501	0.578
	LTE Band 66_Ant 0	20M	QPSK	50	50	Bottom Side	10mm	DSI 6	Config1	132072	1720	22.04	22.70	1.164	0	0.494	0.575
	LTE Band 66B_Ant 2	15M	QPSK	1	0	Back	10mm	DSI 6	Config1	132047	1717.5	22.25	22.70	1.109	-0.03	0.679	0.753
	LTE Band 66C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	132072	1720	21.79	22.70	1.233	-0.05	0.651	0.803



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 0/6	Config0	133322	683	24.61	25.70	1.285	-0.07	0.352	0.452
	LTE Band 71_Ant 0	20M	QPSK	50	24	Front	10mm	DSI 0/6	Config0	133322	683	23.56	24.70	1.300	-0.02	0.300	0.390
	LTE Band 71_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 0/6	Config0	133322	683	24.61	25.70	1.285	-0.12	0.545	0.700
	LTE Band 71_Ant 0	20M	QPSK	50	24	Back	10mm	DSI 0/6	Config0	133322	683	23.56	24.70	1.300	-0.11	0.441	0.573
	LTE Band 71_Ant 0	20M	QPSK	1	0	Left Side	10mm	DSI 0/6	Config0	133322	683	24.61	25.70	1.285	0.14	0.342	0.440
	LTE Band 71_Ant 0	20M	QPSK	50	24	Left Side	10mm	DSI 0/6	Config0	133322	683	23.56	24.70	1.300	0.07	0.304	0.395
	LTE Band 71_Ant 0	20M	QPSK	1	0	Right Side	10mm	DSI 0/6	Config0	133322	683	24.61	25.70	1.285	-0.01	0.133	0.171
	LTE Band 71_Ant 0	20M	QPSK	50	24	Right Side	10mm	DSI 0/6	Config0	133322	683	23.56	24.70	1.300	-0.15	0.135	0.176
	LTE Band 71_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	DSI 0/6	Config0	133322	683	24.61	25.70	1.285	-0.07	0.143	0.184
	LTE Band 71_Ant 0	20M	QPSK	50	24	Bottom Side	10mm	DSI 0/6	Config0	133322	683	23.56	24.70	1.300	-0.03	0.112	0.146
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	10mm	DSI 0/6	Config1	133322	683	24.43	25.70	1.340	-0.09	0.317	0.425
	LTE Band 71_Ant 1	20M	QPSK	50	24	Front	10mm	DSI 0/6	Config1	133322	683	23.41	24.70	1.346	-0.12	0.265	0.357
40	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	10mm	DSI 0/6	Config1	133322	683	24.43	25.70	1.340	-0.08	0.590	0.790
	LTE Band 71_Ant 1	20M	QPSK	50	24	Back	10mm	DSI 0/6	Config1	133322	683	23.41	24.70	1.346	-0.13	0.433	0.583
	LTE Band 71_Ant 1	20M	QPSK	1	0	Left Side	10mm	DSI 0/6	Config1	133322	683	24.43	25.70	1.340	0.01	0.390	0.522
	LTE Band 71_Ant 1	20M	QPSK	50	24	Left Side	10mm	DSI 0/6	Config1	133322	683	23.41	24.70	1.346	0.04	0.319	0.429
	LTE Band 71_Ant 1	20M	QPSK	1	0	Right Side	10mm	DSI 0/6	Config1	133322	683	24.43	25.70	1.340	-0.08	0.097	0.130
	LTE Band 71_Ant 1	20M	QPSK	50	24	Right Side	10mm	DSI 0/6	Config1	133322	683	23.41	24.70	1.346	0.02	0.089	0.120
	LTE Band 71_Ant 1	20M	QPSK	1	0	Top Side	10mm	DSI 0/6	Config1	133322	683	24.43	25.70	1.340	-0.04	0.140	0.188
	LTE Band 71_Ant 1	20M	QPSK	50	24	Top Side	10mm	DSI 0/6	Config1	133322	683	23.41	24.70	1.346	-0.07	0.113	0.152



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

<TDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 6	Config0	40185	2549.5	17.68	18.50	1.208	62.90	1.006	-0.15	0.305	0.371
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	10mm	DSI 6	Config0	40185	2549.5	17.46	18.50	1.271	62.90	1.006	-0.15	0.300	0.383
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	40185	2549.5	17.68	18.50	1.208	62.90	1.006	-0.17	0.631	0.767
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	39750	2506	17.49	18.50	1.262	62.90	1.006	-0.12	0.577	0.732
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	40620	2593	17.63	18.50	1.222	62.90	1.006	-0.1	0.415	0.510
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	41055	2636.5	17.63	18.50	1.222	62.90	1.006	-0.09	0.409	0.503
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	41490	2680	17.49	18.50	1.262	62.90	1.006	-0.12	0.421	0.534
41	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 6	Config0	40185	2549.5	17.46	18.50	1.271	62.90	1.006	-0.13	0.621	0.794
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 6	Config0	39750	2506	17.44	18.50	1.276	62.90	1.006	-0.14	0.609	0.782
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 6	Config0	40620	2593	17.43	18.50	1.279	62.90	1.006	-0.16	0.428	0.551
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 6	Config0	41055	2636.5	17.46	18.50	1.271	62.90	1.006	-0.17	0.417	0.533
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 6	Config0	41490	2680	17.46	18.50	1.271	62.90	1.006	-0.1	0.418	0.534
	LTE Band 41_Ant 2	20M	QPSK	1	0	Left Side	10mm	DSI 6	Config0	40185	2549.5	17.68	18.50	1.208	62.90	1.006	0.14	0.001	0.001
	LTE Band 41_Ant 2	20M	QPSK	50	0	Left Side	10mm	DSI 6	Config0	40185	2549.5	17.46	18.50	1.271	62.90	1.006	-0.16	0.001	0.001
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config0	40185	2549.5	17.68	18.50	1.208	62.90	1.006	0.13	0.610	0.741
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config0	39750	2506	17.49	18.50	1.262	62.90	1.006	0.17	0.593	0.753
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config0	40620	2593	17.63	18.50	1.222	62.90	1.006	0.17	0.465	0.572
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config0	41055	2636.5	17.63	18.50	1.222	62.90	1.006	0.15	0.449	0.552
	LTE Band 41_Ant 2	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config0	41490	2680	17.49	18.50	1.262	62.90	1.006	0.15	0.480	0.609
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	DSI 6	Config0	40185	2549.5	17.46	18.50	1.271	62.90	1.006	0.15	0.604	0.772
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	DSI 6	Config0	39750	2506	17.44	18.50	1.276	62.90	1.006	0.18	0.597	0.767
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	DSI 6	Config0	40620	2593	17.43	18.50	1.279	62.90	1.006	0.12	0.466	0.600
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	DSI 6	Config0	41055	2636.5	17.46	18.50	1.271	62.90	1.006	0.11	0.453	0.579
	LTE Band 41_Ant 2	20M	QPSK	50	0	Right Side	10mm	DSI 6	Config0	41490	2680	17.46	18.50	1.271	62.90	1.006	0.15	0.480	0.614
	LTE Band 41_Ant 2	20M	QPSK	1	0	Bottom Side	10mm	DSI 6	Config0	40185	2549.5	17.68	18.50	1.208	62.90	1.006	-0.01	0.176	0.214
	LTE Band 41_Ant 2	20M	QPSK	50	0	Bottom Side	10mm	DSI 6	Config0	40185	2549.5	17.46	18.50	1.271	62.90	1.006	-0.07	0.171	0.219
	LTE Band 41HPUE_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	40185	2549.5	18.70	20.00	1.349	42.90	1.009	-0.09	0.574	0.781
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 6	Config0	40185	2549.5	17.43	18.50	1.279	62.90	1.006	0.02	0.609	0.784
	LTE Band 41_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 6	Config1	41490	2680	21.67	22.00	1.079	62.90	1.006	0.01	0.254	0.276
	LTE Band 41_Ant 0	20M	QPSK	50	0	Front	10mm	DSI 6	Config1	41490	2680	21.64	22.00	1.086	62.90	1.006	0.16	0.245	0.268
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	41490	2680	21.67	22.00	1.079	62.90	1.006	-0.11	0.322	0.350
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	39750	2506	21.32	22.00	1.169	62.90	1.006	-0.04	0.656	0.772
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	40185	2549.5	21.22	22.00	1.197	62.90	1.006	-0.04	0.641	0.772
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	40620	2593	21.25	22.00	1.189	62.90	1.006	-0.08	0.385	0.460
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	41055	2636.5	21.42	22.00	1.143	62.90	1.006	-0.11	0.339	0.390
	LTE Band 41_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 6	Config1	41490	2680	21.64	22.00	1.086	62.90	1.006	-0.08	0.316	0.345
	LTE Band 41_Ant 0	20M	QPSK	1	0	Left Side	10mm	DSI 6	Config1	41490	2680	21.67	22.00	1.079	62.90	1.006	0.13	0.230	0.250
	LTE Band 41_Ant 0	20M	QPSK	50	0	Left Side	10mm	DSI 6	Config1	41490	2680	21.64	22.00	1.086	62.90	1.006	-0.06	0.264	0.289
	LTE Band 41_Ant 0	20M	QPSK	1	0	Right Side	10mm	DSI 6	Config1	41490	2680	21.67	22.00	1.079	62.90	1.006	-0.03	0.004	0.004
	LTE Band 41_Ant 0	20M	QPSK	50	0	Right Side	10mm	DSI 6	Config1	41490	2680	21.64	22.00	1.086	62.90	1.006	-0.15	0.009	0.009
	LTE Band 41_Ant 0	20M	QPSK	1	0	Bottom Side	10mm	DSI 6	Config1	41490	2680	21.67	22.00	1.079	62.90	1.006	0.11	0.195	0.212
	LTE Band 41_Ant 0	20M	QPSK	50	0	Bottom Side	10mm	DSI 6	Config1	41490	2680	21.64	22.00	1.086	62.90	1.006	-0.03	0.176	0.192
	LTE Band 41HPUE_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	40185	2549.5	22.66	23.50	1.213	42.90	1.009	-0.08	0.618	0.757
	LTE Band 41C_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 6	Config1	41490	2680	21.42	22.00	1.143	62.90	1.006	0.04	0.650	0.747



<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	ON	1	2412	13.90	14.00	1.023	98.80	1.012	-0.04	0.107	0.111
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	ON	1	2412	13.90	14.00	1.023	98.80	1.012	-0.15	0.228	0.236
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 4	ON	1	2412	13.90	14.00	1.023	98.80	1.012	0	0.001	0.001
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4	ON	1	2412	13.90	14.00	1.023	98.80	1.012	0.14	0.229	0.237
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	ON	1	2412	13.90	14.00	1.023	98.80	1.012	-0.01	0.049	0.051
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4+3(4)	ON	1	2412	17.40	17.50	1.023	98.66	1.014	0.03	0.202	0.210
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4+3(3)	ON	1	2412	18.40	18.50	1.023	98.66	1.014	0.03	0.268	0.278
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	ON	1	2412	17.40	17.50	1.023	98.66	1.014	-0.13	0.454	0.471
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	ON	1	2412	18.40	18.50	1.023	98.66	1.014	-0.13	0.448	0.465
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	ON	6	2437	17.10	17.50	1.096	98.66	1.014	-0.1	0.375	0.417
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	ON	6	2437	18.40	18.50	1.023	98.66	1.014	-0.1	0.397	0.412
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	ON	11	2462	17.20	17.50	1.072	98.66	1.014	-0.1	0.237	0.258
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	ON	11	2462	18.30	18.50	1.047	98.66	1.014	-0.1	0.384	0.408
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 4+3(4)	ON	1	2412	17.40	17.50	1.023	98.66	1.014	0.03	0.092	0.095
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 4+3(3)	ON	1	2412	18.40	18.50	1.023	98.66	1.014	0.03	0.337	0.350
42	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4+3(4)	ON	1	2412	17.40	17.50	1.023	98.66	1.014	0.15	0.512	0.531
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4+3(3)	ON	1	2412	18.40	18.50	1.023	98.66	1.014	0.15	0.111	0.115
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4+3(4)	ON	6	2437	17.10	17.50	1.096	98.66	1.014	0.11	0.384	0.427
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4+3(3)	ON	6	2437	18.40	18.50	1.023	98.66	1.014	0.11	0.053	0.055
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4+3(4)	ON	11	2462	17.20	17.50	1.072	98.66	1.014	0.02	0.321	0.349
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4+3(3)	ON	11	2462	18.30	18.50	1.047	98.66	1.014	0.02	0.094	0.100
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4+3(4)	ON	1	2412	17.40	17.50	1.023	98.66	1.014	0.09	0.087	0.090
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4+3(3)	ON	1	2412	18.40	18.50	1.023	98.66	1.014	0.09	0.028	0.029



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5GHz	802.11n-HT40 MCS0	Front	10mm	Ant 3	ON	46	5230	13.80	14.00	1.047	96.04	1.041	0.04	0.020	0.022
	WLAN5GHz	802.11n-HT40 MCS0	Back	10mm	Ant 3	ON	46	5230	13.80	14.00	1.047	96.04	1.041	0.11	0.104	0.113
	WLAN5GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 3	ON	46	5230	13.80	14.00	1.047	96.04	1.041	0.02	0.196	0.214
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 3	ON	46	5230	13.80	14.00	1.047	96.04	1.041	0.1	0.001	0.001
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 3	ON	46	5230	13.80	14.00	1.047	96.04	1.041	0.03	0.021	0.023
	WLAN5GHz	802.11n-HT20 MCS0	Front	10mm	Ant 4+3(4)	ON	48	5240	17.20	17.50	1.072	97.83	1.022	-0.15	0.116	0.127
	WLAN5GHz	802.11n-HT20 MCS0	Front	10mm	Ant 4+3(3)	ON	48	5240	14.20	14.50	1.072	97.83	1.022	-0.15	0.052	0.057
	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 4+3(4)	ON	48	5240	17.20	17.50	1.072	97.83	1.022	0.05	0.239	0.262
	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 4+3(3)	ON	48	5240	14.20	14.50	1.072	97.83	1.022	0.05	0.234	0.256
	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(4)	ON	48	5240	17.20	17.50	1.072	97.83	1.022	-0.05	0.034	0.037
	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(3)	ON	48	5240	14.20	14.50	1.072	97.83	1.022	-0.05	0.380	0.416
	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(4)	ON	36	5180	14.80	15.00	1.047	97.83	1.022	-0.07	0.012	0.013
43	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(3)	ON	36	5180	14.20	15.00	1.202	97.83	1.022	-0.07	0.340	0.418
	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(4)	ON	40	5200	16.20	16.50	1.072	97.83	1.022	-0.17	0.025	0.027
	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(3)	ON	40	5200	14.10	14.50	1.096	97.83	1.022	-0.17	0.286	0.320
	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(4)	ON	44	5220	17.10	17.50	1.096	97.83	1.022	-0.12	0.032	0.036
	WLAN5GHz	802.11n-HT20 MCS0	Left Side	10mm	Ant 4+3(3)	ON	44	5220	14.30	14.50	1.047	97.83	1.022	-0.12	0.302	0.323
	WLAN5GHz	802.11n-HT20 MCS0	Right Side	10mm	Ant 4+3(4)	ON	48	5240	17.20	17.50	1.072	97.83	1.022	0.17	0.176	0.193
	WLAN5GHz	802.11n-HT20 MCS0	Right Side	10mm	Ant 4+3(3)	ON	48	5240	14.20	14.50	1.072	97.83	1.022	0.17	0.001	0.001
	WLAN5GHz	802.11n-HT20 MCS0	Top Side	10mm	Ant 4+3(4)	ON	48	5240	17.20	17.50	1.072	97.83	1.022	-0.18	0.153	0.168
	WLAN5GHz	802.11n-HT20 MCS0	Top Side	10mm	Ant 4+3(3)	ON	48	5240	14.20	14.50	1.072	97.83	1.022	-0.18	0.047	0.051
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 3	ON	155	5775	9.60	10.00	1.096	91.94	1.088	0.06	0.026	0.031
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 3	ON	155	5775	9.60	10.00	1.096	91.94	1.088	-0.11	0.116	0.138
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 3	ON	155	5775	9.60	10.00	1.096	91.94	1.088	0.09	0.187	0.223
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 3	ON	155	5775	9.60	10.00	1.096	91.94	1.088	0.03	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 3	ON	155	5775	9.60	10.00	1.096	91.94	1.088	0.07	0.024	0.029
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	ON	155	5775	14.90	15.00	1.023	91.96	1.087	-0.05	0.143	0.159
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	ON	155	5775	11.40	11.50	1.023	91.96	1.087	-0.05	0.072	0.080
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	ON	155	5775	14.90	15.00	1.023	91.96	1.087	0.09	0.356	0.396
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	ON	155	5775	11.40	11.50	1.023	91.96	1.087	0.09	0.123	0.137
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 4+3(4)	ON	155	5775	14.90	15.00	1.023	91.96	1.087	0.14	0.015	0.017
44	WLAN5GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 4+3(3)	ON	155	5775	11.40	11.50	1.023	91.96	1.087	0.14	0.377	0.419
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 4+3(4)	ON	155	5775	14.90	15.00	1.023	91.96	1.087	0.17	0.178	0.198
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 4+3(3)	ON	155	5775	11.40	11.50	1.023	91.96	1.087	0.17	0.001	0.001
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 4+3(4)	ON	155	5775	14.90	15.00	1.023	91.96	1.087	0.11	0.155	0.172
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 4+3(3)	ON	155	5775	11.40	11.50	1.023	91.96	1.087	0.11	0.051	0.057

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	10mm	Ant 4	ON	78	2480	14.81	15.50	1.172	77.03	1.081	-0.05	0.063	0.080
	Bluetooth	1Mbps	Back	10mm	Ant 4	ON	78	2480	14.81	15.50	1.172	77.03	1.081	-0.03	0.158	0.200
	Bluetooth	1Mbps	Left Side	10mm	Ant 4	ON	78	2480	14.81	15.50	1.172	77.03	1.081	0	0.001	0.001
	Bluetooth	1Mbps	Right Side	10mm	Ant 4	ON	78	2480	14.81	15.50	1.172	77.03	1.081	0.11	0.172	0.218
	Bluetooth	1Mbps	Right Side	10mm	Ant 4	ON	0	2402	14.75	15.50	1.188	77.03	1.081	0.12	0.243	0.312
	Bluetooth	1Mbps	Right Side	10mm	Ant 4	ON	39	2441	14.94	15.50	1.137	77.03	1.081	0.08	0.242	0.298
	Bluetooth	1Mbps	Top Side	10mm	Ant 4	ON	78	2480	14.81	15.50	1.172	77.03	1.081	-0.02	0.024	0.030
	Bluetooth	1Mbps	Front	10mm	Ant 4	OFF	39	2441	17.90	18.00	1.023	77.03	1.081	-0.12	0.244	0.270
	Bluetooth	1Mbps	Back	10mm	Ant 4	OFF	39	2441	17.90	18.00	1.023	77.03	1.081	-0.19	0.512	0.566
45	Bluetooth	1Mbps	Back	10mm	Ant 4	OFF	0	2402	17.70	18.00	1.071	77.03	1.081	-0.15	0.513	0.594
	Bluetooth	1Mbps	Back	10mm	Ant 4	OFF	78	2480	17.52	18.00	1.117	77.03	1.081	-0.03	0.345	0.416
	Bluetooth	1Mbps	Left Side	10mm	Ant 4	OFF	39	2441	17.90	18.00	1.023	77.03	1.081	0	0.001	0.001
	Bluetooth	1Mbps	Right Side	10mm	Ant 4	OFF	39	2441	17.90	18.00	1.023	77.03	1.081	0.15	0.513	0.567
	Bluetooth	1Mbps	Top Side	10mm	Ant 4	OFF	39	2441	17.90	18.00	1.023	77.03	1.081	0.09	0.127	0.140



13.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	DSI 8	Config0	128	824.2	28.22	29.00	1.197	0.02	0.531	0.635
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config0	128	824.2	28.22	29.00	1.197	-0.03	0.671	0.803
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config0	189	836.4	27.88	29.00	1.294	0.02	0.675	0.874
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config0	251	848.8	27.74	29.00	1.337	-0.06	0.587	0.785
	GSM850_Ant 0	GPRS (4 Tx slots)	Front	10mm	DSI 4	Config0	128	824.2	29.05	30.00	1.245	0.13	0.546	0.680
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config0	128	824.2	29.05	30.00	1.245	-0.12	0.760	0.946
46	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config0	189	836.4	28.83	30.00	1.309	-0.13	0.816	1.068
	GSM850_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config0	251	848.8	28.78	30.00	1.324	0	0.737	0.976
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	DSI 8	Config1	128	824.2	27.76	28.50	1.186	0.02	0.386	0.458
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config1	128	824.2	27.76	28.50	1.186	-0.13	0.520	0.617
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config1	189	836.4	27.24	28.50	1.337	-0.01	0.649	0.867
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config1	251	848.8	26.57	28.50	1.560	0	0.617	0.962
	GSM850_Ant 1	GPRS (4 Tx slots)	Front	10mm	DSI 4	Config1	128	824.2	28.39	29.50	1.291	0.18	0.355	0.458
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config1	128	824.2	28.39	29.50	1.291	0.15	0.551	0.711
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config1	189	836.4	27.90	29.50	1.445	0.04	0.558	0.807
	GSM850_Ant 1	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config1	251	848.8	27.65	29.50	1.531	0.13	0.564	0.864
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	DSI 8	Config1	661	1880	21.81	22.50	1.172	-0.13	0.257	0.301
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config1	661	1880	21.81	22.50	1.172	-0.13	0.587	0.688
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config1	512	1850.2	21.50	22.50	1.259	-0.07	0.472	0.594
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config1	810	1909.8	21.76	22.50	1.186	-0.04	0.666	0.790
	GSM1900_Ant 0	GPRS (4 Tx slots)	Front	10mm	DSI 4	Config1	661	1880	21.81	23.00	1.315	-0.13	0.257	0.338
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config1	661	1880	21.81	23.00	1.315	-0.13	0.587	0.772
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config1	512	1850.2	21.50	23.00	1.413	-0.07	0.472	0.667
	GSM1900_Ant 0	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config1	810	1909.8	21.76	23.00	1.330	-0.04	0.666	0.886
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	DSI 8	Config0	661	1880	25.88	27.00	1.294	-0.11	0.696	0.901
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	DSI 8	Config0	512	1850.2	25.33	27.00	1.469	-0.06	0.465	0.683
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	DSI 8	Config0	810	1909.8	25.88	27.00	1.294	-0.05	0.518	0.670
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	DSI 8	Config0	661	1880	25.88	27.00	1.294	-0.03	0.588	0.761
	GSM1900_Ant 2	GPRS (4 Tx slots)	Front	10mm	DSI 4	Config0	810	1909.8	26.23	27.50	1.340	-0.03	0.516	0.691
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config0	810	1909.8	26.23	27.50	1.340	-0.04	0.646	0.865
	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config0	512	1850.2	26.07	27.50	1.390	-0.13	0.569	0.791
47	GSM1900_Ant 2	GPRS (4 Tx slots)	Back	10mm	DSI 4	Config0	661	1880	26.08	27.50	1.387	0.09	0.828	1.148



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 8	Config0	9538	1907.6	21.35	21.80	1.109	-0.02	0.569	0.631
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 8	Config0	9538	1907.6	21.35	21.80	1.109	0.03	0.613	0.680
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 8	Config0	9262	1852.4	21.11	21.80	1.172	-0.07	0.628	0.736
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 8	Config0	9400	1880	21.23	21.80	1.140	-0.07	0.741	0.845
	WCDMA II_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 4	Config0	9538	1907.6	21.35	23.10	1.496	-0.02	0.569	0.851
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 4	Config0	9538	1907.6	21.35	23.10	1.496	0.03	0.613	0.917
	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 4	Config0	9262	1852.4	21.11	23.10	1.581	-0.07	0.628	0.993
48	WCDMA II_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 4	Config0	9400	1880	21.23	23.10	1.538	-0.07	0.741	1.140
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 8	Config1	9538	1907.6	19.46	19.80	1.081	0	0.289	0.313
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 8	Config1	9538	1907.6	19.46	19.80	1.081	-0.12	0.775	0.838
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 8	Config1	9262	1852.4	19.35	19.80	1.109	0.02	0.606	0.672
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 8	Config1	9400	1880	19.32	19.80	1.117	-0.03	0.621	0.694
	WCDMA II_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 4	Config1	9262	1852.4	19.72	21.00	1.343	-0.12	0.199	0.267
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 4	Config1	9262	1852.4	19.72	21.00	1.343	-0.02	0.494	0.663
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 4	Config1	9400	1880	19.63	21.00	1.371	-0.01	0.620	0.850
	WCDMA II_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 4	Config1	9538	1907.6	19.59	21.00	1.384	-0.04	0.783	1.083
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 8	Config0	1513	1752.6	22.16	22.90	1.186	-0.13	0.714	0.847
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 8	Config0	1312	1712.4	22.08	22.90	1.208	-0.03	0.652	0.787
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 8	Config0	1413	1732.6	22.08	22.90	1.208	-0.05	0.664	0.802
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 8	Config0	1513	1752.6	22.16	22.90	1.186	-0.04	0.793	0.940
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 8	Config0	1312	1712.4	22.08	22.90	1.208	-0.04	0.759	0.917
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 8	Config0	1413	1732.6	22.08	22.90	1.208	-0.04	0.779	0.941
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 4	Config0	1513	1752.6	22.16	23.70	1.426	-0.13	0.714	1.018
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 4	Config0	1312	1712.4	22.08	23.70	1.452	-0.03	0.652	0.947
	WCDMA IV_Ant 2	RMC 12.2Kbps	Front	10mm	DSI 4	Config0	1413	1732.6	22.08	23.70	1.452	-0.05	0.664	0.964
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 4	Config0	1513	1752.6	22.16	23.70	1.426	-0.04	0.792	1.129
	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 4	Config0	1312	1712.4	22.08	23.70	1.452	-0.04	0.759	1.102
49	WCDMA IV_Ant 2	RMC 12.2Kbps	Back	10mm	DSI 4	Config0	1413	1732.6	22.08	23.70	1.452	-0.04	0.779	1.131
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 8	Config1	1513	1752.6	21.21	21.80	1.146	-0.08	0.439	0.503
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 8	Config1	1513	1752.6	21.21	21.80	1.146	-0.14	0.573	0.656
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 8	Config1	1312	1712.4	21.21	21.80	1.146	-0.1	0.552	0.632
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 8	Config1	1413	1732.6	21.20	21.80	1.148	-0.1	0.542	0.622
	WCDMA IV_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 4	Config1	1513	1752.6	21.21	22.60	1.377	-0.08	0.439	0.605
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 4	Config1	1513	1752.6	21.21	22.60	1.377	-0.14	0.573	0.789
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 4	Config1	1312	1712.4	21.20	22.60	1.380	-0.1	0.552	0.762
	WCDMA IV_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 4	Config1	1413	1732.6	21.21	22.60	1.377	-0.1	0.542	0.746
	WCDMA V_Ant 0	RMC 12.2Kbps	Front	10mm	DSI 0/4/8	Config0	4233	846.6	25.25	25.70	1.109	-0.06	0.532	0.590
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 0/4/8	Config0	4233	846.6	25.25	25.70	1.109	-0.13	0.718	0.796
	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 0/4/8	Config0	4132	826.4	25.21	25.70	1.119	-0.11	0.728	0.815
50	WCDMA V_Ant 0	RMC 12.2Kbps	Back	10mm	DSI 0/4/8	Config0	4182	836.4	25.09	25.70	1.151	-0.1	0.710	0.817
	WCDMA V_Ant 1	RMC 12.2Kbps	Front	10mm	DSI 0/4/8	Config1	4233	846.6	24.86	25.70	1.213	0.12	0.434	0.527
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	DSI 0/4/8	Config1	4233	846.6	24.86	25.70	1.213	-0.11	0.643	0.780
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	DSI 0/4/8	Config1	4132	826.4	24.85	25.70	1.216	-0.12	0.541	0.658
	WCDMA V_Ant 1	RMC 12.2Kbps	Back	10mm	DSI 0/4/8	Config1	4182	836.4	24.74	25.70	1.247	-0.11	0.590	0.736



<CDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA BC0_Ant 0	1xRTT RC3 SO32	Front	10mm	DSI 4/8	Config0	777	848.31	24.38	25.20	1.208	-0.14	0.475	0.574
	CDMA BC0_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 4/8	Config0	777	848.31	24.38	25.20	1.208	-0.07	0.764	0.923
51	CDMA BC0_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 4/8	Config0	1013	824.7	24.38	25.20	1.208	-0.11	0.814	0.983
	CDMA BC0_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 4/8	Config0	384	836.52	24.32	25.20	1.225	-0.12	0.796	0.975
	CDMA BC0_Ant 1	1xRTT RC3 SO32	Front	10mm	DSI 0/4/8	Config1	777	848.31	24.48	25.70	1.324	-0.06	0.436	0.577
	CDMA BC0_Ant 1	1xRTT RC3 SO32	Back	10mm	DSI 0/4/8	Config1	777	848.31	24.48	25.70	1.324	-0.05	0.669	0.886
	CDMA BC0_Ant 1	1xRTT RC3 SO32	Back	10mm	DSI 0/4/8	Config1	1013	824.7	24.48	25.70	1.324	-0.07	0.668	0.885
	CDMA BC0_Ant 1	1xRTT RC3 SO32	Back	10mm	DSI 0/4/8	Config1	384	836.52	24.42	25.70	1.343	0	0.657	0.882
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Front	10mm	DSI 8	Config1	25	1851.25	18.86	19.30	1.107	-0.12	0.189	0.209
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 8	Config1	25	1851.25	18.86	19.30	1.107	0.13	0.501	0.554
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 8	Config1	600	1880	18.76	19.30	1.132	0.1	0.613	0.694
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 8	Config1	1175	1908.75	18.57	19.30	1.183	0.12	0.789	0.933
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Front	10mm	DSI 4	Config1	25	1851.25	18.86	20.10	1.330	-0.12	0.189	0.251
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 4	Config1	25	1851.25	18.86	20.10	1.330	0.13	0.501	0.667
	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 4	Config1	600	1880	18.76	20.10	1.361	0.1	0.613	0.835
52	CDMA BC1_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 4	Config1	1175	1908.75	18.57	20.10	1.422	0.12	0.789	1.122
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Front	10mm	DSI 8	Config0	25	1851.25	21.17	22.00	1.211	-0.01	0.597	0.723
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Back	10mm	DSI 8	Config0	25	1851.25	21.17	22.00	1.211	-0.08	0.658	0.797
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Back	10mm	DSI 8	Config0	600	1880	21.15	22.00	1.216	-0.08	0.805	0.979
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Back	10mm	DSI 8	Config0	1175	1908.75	20.93	22.00	1.279	-0.08	0.698	0.893
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Front	10mm	DSI 4	Config0	25	1851.25	21.17	22.50	1.358	-0.01	0.597	0.811
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Front	10mm	DSI 4	Config0	600	1880	21.15	22.50	1.365	0	0.729	0.995
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Front	10mm	DSI 4	Config0	1175	1908.75	20.93	22.50	1.435	0.02	0.665	0.955
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Back	10mm	DSI 4	Config0	25	1851.25	21.17	22.50	1.358	-0.08	0.658	0.894
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Back	10mm	DSI 4	Config0	600	1880	21.15	22.50	1.365	-0.08	0.805	1.098
	CDMA BC1_Ant 2	1xRTT RC3 SO32	Back	10mm	DSI 4	Config0	1175	1908.75	20.93	22.50	1.435	-0.08	0.698	1.002
	CDMA BC10_Ant 0	1xRTT RC3 SO32	Front	10mm	DSI 4/8	Config0	580	820.5	24.32	25.20	1.225	-0.05	0.627	0.768
53	CDMA BC10_Ant 0	1xRTT RC3 SO32	Back	10mm	DSI 4/8	Config0	580	820.5	24.32	25.20	1.225	-0.06	0.815	0.998
	CDMA BC10_Ant 1	1xRTT RC3 SO32	Front	10mm	DSI 0/4/8	Config1	580	820.5	24.42	25.70	1.343	-0.07	0.443	0.595
	CDMA BC10_Ant 1	1xRTT RC3 SO32	Back	10mm	DSI 0/4/8	Config1	580	820.5	24.42	25.70	1.343	-0.11	0.673	0.904



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 8	Config0	21350	2560	16.63	17.50	1.222	-0.1	0.247	0.302
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 8	Config0	21350	2560	16.62	17.50	1.225	-0.17	0.249	0.305
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 8	Config0	21350	2560	16.63	17.50	1.222	-0.13	0.580	0.709
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 8	Config0	21350	2560	16.62	17.50	1.225	-0.11	0.590	0.723
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 8	Config0	20850	2510	16.55	17.50	1.245	-0.14	0.687	0.855
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 8	Config0	21100	2535	16.58	17.50	1.236	-0.11	0.676	0.836
	LTE Band 7_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 8	Config0	21350	2560	16.55	17.50	1.245	-0.1	0.583	0.726
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	21100	2535	16.48	17.50	1.265	0.03	0.670	0.847
	LTE Band 7_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 4	Config0	21350	2560	17.86	18.70	1.213	-0.15	0.373	0.453
	LTE Band 7_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 4	Config0	21350	2560	17.83	18.70	1.222	-0.17	0.383	0.468
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 4	Config0	21350	2560	17.86	18.70	1.213	-0.16	0.848	1.029
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 4	Config0	20850	2510	17.71	18.70	1.256	-0.17	0.934	1.173
	LTE Band 7_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 4	Config0	21100	2535	17.71	18.70	1.256	-0.19	0.905	1.137
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 4	Config0	21350	2560	17.83	18.70	1.222	-0.15	0.864	1.056
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 4	Config0	20850	2510	17.71	18.70	1.256	-0.17	0.939	1.179
	LTE Band 7_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 4	Config0	21100	2535	17.71	18.70	1.256	-0.11	0.925	1.162
54	LTE Band 7_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 4	Config0	21100	2535	17.70	18.70	1.259	-0.1	0.948	1.193
	LTE Band 7C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	21100	2535	18.27	19.20	1.239	-0.05	0.919	1.138
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	DSI 8	Config1	21100	2535	20.09	21.00	1.233	0	0.447	0.551
	LTE Band 7_Ant 0	20M	QPSK	50	24	Front	10mm	DSI 8	Config1	21100	2535	20.09	21.00	1.233	-0.1	0.472	0.582
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	DSI 8	Config1	21100	2535	20.09	21.00	1.233	0.03	0.515	0.635
	LTE Band 7_Ant 0	20M	QPSK	50	24	Back	10mm	DSI 8	Config1	21100	2535	20.11	21.00	1.227	-0.08	0.596	0.732
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 8	Config1	20850	2510	20.07	21.00	1.239	-0.03	0.746	0.924
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 8	Config1	21350	2560	20.07	21.00	1.239	-0.06	0.493	0.611
	LTE Band 7_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 8	Config1	21100	2535	20.10	21.00	1.230	-0.08	0.603	0.742
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	21100	2535	19.95	21.00	1.274	-0.1	0.594	0.756
	LTE Band 7_Ant 0	20M	QPSK	1	99	Front	10mm	DSI 4	Config1	21100	2535	20.74	22.00	1.337	-0.14	0.515	0.688
	LTE Band 7_Ant 0	20M	QPSK	50	50	Front	10mm	DSI 4	Config1	21100	2535	20.78	22.00	1.324	0.02	0.534	0.707
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	DSI 4	Config1	21100	2535	20.74	22.00	1.337	-0.01	0.609	0.814
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	DSI 4	Config1	20850	2510	20.73	22.00	1.340	-0.07	0.824	1.104
	LTE Band 7_Ant 0	20M	QPSK	1	99	Back	10mm	DSI 4	Config1	21350	2560	20.69	22.00	1.352	-0.15	0.550	0.744
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 4	Config1	21100	2535	20.78	22.00	1.324	-0.17	0.650	0.861
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 4	Config1	20850	2510	20.76	22.00	1.330	-0.11	0.859	1.143
	LTE Band 7_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 4	Config1	21350	2560	20.72	22.00	1.343	-0.09	0.578	0.776
	LTE Band 7_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 4	Config1	21100	2535	20.78	22.00	1.324	-0.02	0.716	0.948
	LTE Band 7C_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	21100	2535	21.00	22.00	1.259	0.07	0.792	0.997
	LTE Band 12_Ant 0	10M	QPSK	1	49	Front	10mm	DSI 0/4/8	Config0	23095	707.5	24.77	25.70	1.239	-0.12	0.439	0.544
	LTE Band 12_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 0/4/8	Config0	23095	707.5	23.73	24.70	1.250	-0.12	0.417	0.521
	LTE Band 12_Ant 0	10M	QPSK	1	49	Back	10mm	DSI 0/4/8	Config0	23095	707.5	24.77	25.70	1.239	-0.07	0.562	0.696
	LTE Band 12_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 0/4/8	Config0	23095	707.5	23.73	24.70	1.250	-0.08	0.469	0.586
	LTE Band 12_Ant 1	10M	QPSK	1	49	Front	10mm	DSI 0/4/8	Config1	23095	707.5	24.61	25.70	1.285	-0.12	0.336	0.432
	LTE Band 12_Ant 1	10M	QPSK	25	12	Front	10mm	DSI 0/4/8	Config1	23095	707.5	23.56	24.70	1.300	-0.15	0.265	0.345
55	LTE Band 12_Ant 1	10M	QPSK	1	49	Back	10mm	DSI 0/4/8	Config1	23095	707.5	24.61	25.70	1.285	-0.12	0.599	0.770
	LTE Band 12_Ant 1	10M	QPSK	25	12	Back	10mm	DSI 0/4/8	Config1	23095	707.5	23.56	24.70	1.300	-0.1	0.483	0.628



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_Ant 0	10M	QPSK	1	25	Front	10mm	DSI 0/4/8	Config0	23230	782	24.73	25.50	1.194	-0.09	0.429	0.512
	LTE Band 13_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 0/4/8	Config0	23230	782	23.73	24.50	1.194	-0.12	0.348	0.416
56	LTE Band 13_Ant 0	10M	QPSK	1	25	Back	10mm	DSI 0/4/8	Config0	23230	782	24.73	25.50	1.194	-0.07	0.536	0.640
	LTE Band 13_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 0/4/8	Config0	23230	782	23.73	24.50	1.194	-0.11	0.438	0.523
	LTE Band 14_Ant 0	10M	QPSK	1	0	Front	10mm	DSI 0/4/8	Config0	23330	793	24.88	25.70	1.208	-0.11	0.483	0.583
	LTE Band 14_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 0/4/8	Config0	23330	793	23.89	24.70	1.205	-0.08	0.396	0.477
57	LTE Band 14_Ant 0	10M	QPSK	1	0	Back	10mm	DSI 0/4/8	Config0	23330	793	24.88	25.70	1.208	-0.03	0.627	0.757
	LTE Band 14_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 0/4/8	Config0	23330	793	23.89	24.70	1.205	-0.1	0.505	0.609
	LTE Band 25_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 8	Config0	26590	1905	21.59	22.70	1.291	-0.1	0.549	0.709
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 8	Config0	26590	1905	21.64	22.70	1.276	-0.05	0.580	0.740
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 8	Config0	26140	1860	21.58	22.70	1.294	-0.06	0.502	0.650
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 8	Config0	26340	1880	21.64	22.70	1.276	-0.04	0.697	0.890
	LTE Band 25_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 8	Config0	26590	1905	21.59	22.70	1.291	0	0.544	0.702
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	DSI 8	Config0	26590	1905	21.64	22.70	1.276	0	0.565	0.721
	LTE Band 25_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 4	Config0	26590	1905	21.59	23.50	1.552	-0.1	0.549	0.852
	LTE Band 25_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 4	Config0	26140	1860	21.58	23.50	1.556	-0.04	0.490	0.762
	LTE Band 25_Ant 2	20M	QPSK	1	99	Front	10mm	DSI 4	Config0	26340	1880	21.58	23.50	1.556	-0.1	0.590	0.918
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 4	Config0	26590	1905	21.64	23.50	1.535	-0.05	0.580	0.890
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 4	Config0	26140	1860	21.58	23.50	1.556	-0.06	0.502	0.781
	LTE Band 25_Ant 2	20M	QPSK	50	24	Front	10mm	DSI 4	Config0	26340	1880	21.64	23.50	1.535	-0.04	0.697	1.070
	LTE Band 25_Ant 2	20M	QPSK	100	0	Front	10mm	DSI 4	Config0	26590	1905	21.62	23.50	1.542	-0.08	0.545	0.840
	LTE Band 25_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 4	Config0	26590	1905	21.59	23.50	1.552	0	0.544	0.844
	LTE Band 25_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 4	Config0	26140	1860	21.58	23.50	1.556	-0.1	0.513	0.798
	LTE Band 25_Ant 2	20M	QPSK	1	99	Back	10mm	DSI 4	Config0	26340	1880	21.58	23.50	1.556	0	0.600	0.934
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	DSI 4	Config0	26590	1905	21.64	23.50	1.535	0	0.565	0.867
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	DSI 4	Config0	26140	1860	21.58	23.50	1.556	-0.1	0.530	0.825
	LTE Band 25_Ant 2	20M	QPSK	50	24	Back	10mm	DSI 4	Config0	26340	1880	21.64	23.50	1.535	-0.14	0.670	1.028
	LTE Band 25_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 4	Config0	26590	1905	21.62	23.50	1.542	-0.05	0.564	0.870
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 8	Config1	26140	1860	18.96	19.50	1.132	0.02	0.276	0.313
	LTE Band 25_Ant 0	20M	QPSK	50	0	Front	10mm	DSI 8	Config1	26140	1860	18.96	19.50	1.132	0.04	0.290	0.328
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	26140	1860	18.96	19.50	1.132	-0.13	0.564	0.639
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 8	Config1	26140	1860	18.96	19.50	1.132	-0.16	0.591	0.669
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 8	Config1	26340	1880	18.91	19.50	1.146	-0.01	0.657	0.753
	LTE Band 25_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 8	Config1	26590	1905	18.86	19.50	1.159	-0.02	0.698	0.809
	LTE Band 25_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 8	Config1	26140	1860	18.96	19.50	1.132	-0.19	0.600	0.679
	LTE Band 25_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 4	Config1	26140	1860	20.00	20.50	1.122	-0.16	0.359	0.403
	LTE Band 25_Ant 0	20M	QPSK	50	24	Front	10mm	DSI 4	Config1	26140	1860	20.00	20.50	1.122	0.02	0.385	0.432
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	26140	1860	20.00	20.50	1.122	-0.19	0.776	0.871
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	26340	1880	19.92	20.50	1.143	-0.13	0.875	1.000
	LTE Band 25_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	26590	1905	19.80	20.50	1.175	-0.11	0.937	1.101
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	DSI 4	Config1	26140	1860	20.00	20.50	1.122	-0.15	0.818	0.918
	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	DSI 4	Config1	26340	1880	19.93	20.50	1.140	-0.13	0.947	1.080
58	LTE Band 25_Ant 0	20M	QPSK	50	24	Back	10mm	DSI 4	Config1	26590	1905	19.84	20.50	1.164	-0.14	0.992	1.155
	LTE Band 25_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 4	Config1	26140	1860	19.97	20.50	1.130	-0.14	0.835	0.943



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_Ant 0	15M	QPSK	1	74	Front	10mm	DSI 0/4/8	Config0	26865	831.5	24.88	25.70	1.208	-0.15	0.454	0.548
	LTE Band 26_Ant 0	15M	QPSK	36	20	Front	10mm	DSI 0/4/8	Config0	26865	831.5	23.97	24.70	1.183	-0.08	0.386	0.457
	LTE Band 26_Ant 0	15M	QPSK	1	74	Back	10mm	DSI 0/4/8	Config0	26865	831.5	24.88	25.70	1.208	-0.14	0.520	0.628
	LTE Band 26_Ant 0	15M	QPSK	36	20	Back	10mm	DSI 0/4/8	Config0	26865	831.5	23.97	24.70	1.183	-0.11	0.454	0.537
	LTE Band 5B_Ant 0	10M	QPSK	1	0	Back	10mm	DSI 0/4/8	Config0	20450	829	24.80	25.70	1.230	-0.11	0.510	0.627
	LTE Band 26_Ant 1	15M	QPSK	1	74	Front	10mm	DSI 0/4/8	Config1	26865	831.5	24.52	25.70	1.312	0.15	0.353	0.463
	LTE Band 26_Ant 1	15M	QPSK	36	20	Front	10mm	DSI 0/4/8	Config1	26865	831.5	23.66	24.70	1.271	-0.03	0.297	0.377
59	LTE Band 26_Ant 1	15M	QPSK	1	74	Back	10mm	DSI 0/4/8	Config1	26865	831.5	24.52	25.70	1.312	-0.16	0.531	0.697
	LTE Band 26_Ant 1	15M	QPSK	36	20	Back	10mm	DSI 0/4/8	Config1	26865	831.5	23.66	24.70	1.271	-0.02	0.456	0.579
	LTE Band 5B_Ant 1	10M	QPSK	1	0	Back	10mm	DSI 0/4/8	Config1	20450	829	24.52	25.70	1.312	-0.09	0.515	0.676
	LTE Band 30_Ant 2	10M	QPSK	1	49	Front	10mm	DSI 8	Config0	27710	2310	19.28	20.00	1.180	-0.09	0.344	0.406
	LTE Band 30_Ant 2	10M	QPSK	25	12	Front	10mm	DSI 8	Config0	27710	2310	19.22	20.00	1.197	-0.11	0.349	0.418
	LTE Band 30_Ant 2	10M	QPSK	1	49	Back	10mm	DSI 8	Config0	27710	2310	19.28	20.00	1.180	-0.08	0.717	0.846
	LTE Band 30_Ant 2	10M	QPSK	25	12	Back	10mm	DSI 8	Config0	27710	2310	19.22	20.00	1.197	-0.02	0.698	0.835
	LTE Band 30_Ant 2	10M	QPSK	50	0	Back	10mm	DSI 8	Config0	27710	2310	19.23	20.00	1.194	-0.04	0.693	0.827
	LTE Band 30_Ant 2	10M	QPSK	1	49	Front	10mm	DSI 4	Config0	27710	2310	20.00	21.00	1.259	-0.06	0.457	0.575
	LTE Band 30_Ant 2	10M	QPSK	25	12	Front	10mm	DSI 4	Config0	27710	2310	19.99	21.00	1.262	-0.13	0.467	0.589
	LTE Band 30_Ant 2	10M	QPSK	1	49	Back	10mm	DSI 4	Config0	27710	2310	20.00	21.00	1.259	-0.08	0.811	1.021
	LTE Band 30_Ant 2	10M	QPSK	25	12	Back	10mm	DSI 4	Config0	27710	2310	19.99	21.00	1.262	-0.03	0.802	1.012
	LTE Band 30_Ant 2	10M	QPSK	50	0	Back	10mm	DSI 4	Config0	27710	2310	19.97	21.00	1.268	-0.01	0.807	1.023
	LTE Band 30_Ant 0	10M	QPSK	1	0	Front	10mm	DSI 8	Config1	27710	2310	18.06	18.90	1.213	0.06	0.190	0.231
	LTE Band 30_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 8	Config1	27710	2310	18.10	18.90	1.202	0.08	0.195	0.234
	LTE Band 30_Ant 0	10M	QPSK	1	0	Back	10mm	DSI 8	Config1	27710	2310	18.06	18.90	1.213	-0.02	0.681	0.826
	LTE Band 30_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 8	Config1	27710	2310	18.10	18.90	1.202	-0.04	0.714	0.858
	LTE Band 30_Ant 0	10M	QPSK	50	0	Back	10mm	DSI 8	Config1	27710	2310	18.09	18.90	1.205	-0.03	0.709	0.854
	LTE Band 30_Ant 0	10M	QPSK	1	0	Front	10mm	DSI 4	Config1	27710	2310	18.06	19.70	1.459	0.06	0.190	0.277
	LTE Band 30_Ant 0	10M	QPSK	25	12	Front	10mm	DSI 4	Config1	27710	2310	18.10	19.70	1.445	0.08	0.195	0.282
	LTE Band 30_Ant 0	10M	QPSK	1	0	Back	10mm	DSI 4	Config1	27710	2310	18.06	19.70	1.459	-0.02	0.681	0.993
60	LTE Band 30_Ant 0	10M	QPSK	25	12	Back	10mm	DSI 4	Config1	27710	2310	18.10	19.70	1.445	-0.04	0.714	1.032
	LTE Band 30_Ant 0	10M	QPSK	50	0	Back	10mm	DSI 4	Config1	27710	2310	18.09	19.70	1.449	-0.03	0.709	1.027



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 8	Config0	132072	1720	21.93	22.90	1.250	-0.05	0.572	0.715
	LTE Band 66_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 8	Config0	132072	1720	21.89	22.90	1.262	-0.1	0.570	0.719
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	132072	1720	21.93	22.90	1.250	-0.04	0.694	0.868
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	132322	1745	21.91	22.90	1.256	-0.07	0.700	0.879
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	132572	1770	21.87	22.90	1.268	-0.04	0.746	0.946
	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 8	Config0	132072	1720	21.89	22.90	1.262	-0.06	0.693	0.874
	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 8	Config0	132322	1745	21.89	22.90	1.262	-0.05	0.709	0.895
	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 8	Config0	132572	1770	21.71	22.90	1.315	-0.07	0.729	0.959
	LTE Band 66_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 8	Config0	132072	1720	21.94	22.90	1.247	-0.08	0.701	0.874
	LTE Band 66B_Ant 2	15M	QPSK	1	0	Back	10mm	DSI 8	Config0	132047	1717.5	22.63	23.40	1.194	0.02	0.725	0.866
	LTE Band 66C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	132072	1720	22.12	23.40	1.343	-0.01	0.712	0.956
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 4	Config0	132072	1720	21.93	23.70	1.503	-0.05	0.572	0.860
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 4	Config0	132322	1745	21.91	23.70	1.510	0.07	0.628	0.948
	LTE Band 66_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 4	Config0	132572	1770	21.87	23.70	1.524	0.03	0.664	1.012
	LTE Band 66_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 4	Config0	132072	1720	21.89	23.70	1.517	-0.1	0.570	0.865
	LTE Band 66_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 4	Config0	132322	1745	21.89	23.70	1.517	0.04	0.626	0.950
	LTE Band 66_Ant 2	20M	QPSK	50	50	Front	10mm	DSI 4	Config0	132572	1770	21.71	23.70	1.581	0.06	0.670	1.059
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	132072	1720	21.93	23.70	1.503	-0.04	0.694	1.043
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	132322	1745	21.91	23.70	1.510	-0.07	0.700	1.057
	LTE Band 66_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	132572	1770	21.87	23.70	1.524	-0.04	0.746	1.137
	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 4	Config0	132072	1720	21.89	23.70	1.517	-0.06	0.693	1.051
	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 4	Config0	132322	1745	21.89	23.70	1.517	-0.05	0.709	1.076
61	LTE Band 66_Ant 2	20M	QPSK	50	50	Back	10mm	DSI 4	Config0	132572	1770	21.71	23.70	1.581	-0.07	0.729	1.153
	LTE Band 66_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 4	Config0	132072	1720	21.94	23.70	1.500	-0.08	0.701	1.051
	LTE Band 66B_Ant 2	15M	QPSK	1	0	Back	10mm	DSI 4	Config0	132047	1717.5	23.41	24.20	1.199	-0.05	0.931	1.117
	LTE Band 66C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	132072	1720	22.91	24.20	1.346	0.03	0.842	1.133
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 8	Config1	132072	1720	22.08	22.70	1.153	-0.03	0.483	0.557
	LTE Band 66_Ant 0	20M	QPSK	50	50	Front	10mm	DSI 8	Config1	132072	1720	22.04	22.70	1.164	-0.01	0.457	0.532
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	132072	1720	22.08	22.70	1.153	-0.14	0.604	0.697
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	132322	1745	22.04	22.70	1.164	-0.1	0.582	0.678
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	132572	1770	21.94	22.70	1.191	-0.11	0.682	0.812
	LTE Band 66_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 8	Config1	132072	1720	22.04	22.70	1.164	-0.1	0.567	0.660
	LTE Band 66_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 8	Config1	132072	1720	22.09	22.70	1.151	-0.09	0.588	0.677
	LTE Band 66B_Ant 0	15M	QPSK	1	0	Back	10mm	DSI 8	Config1	132047	1717.5	22.25	22.70	1.109	-0.03	0.679	0.753
	LTE Band 66C_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	132072	1720	21.79	22.70	1.233	-0.05	0.651	0.803
	LTE Band 66_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 4	Config1	132072	1720	22.08	23.50	1.387	-0.03	0.483	0.670
	LTE Band 66_Ant 0	20M	QPSK	50	50	Front	10mm	DSI 4	Config1	132072	1720	22.04	23.50	1.400	-0.01	0.457	0.640
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	132072	1720	22.08	23.50	1.387	-0.14	0.604	0.838
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	132322	1745	22.04	23.50	1.400	-0.1	0.582	0.815
	LTE Band 66_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	132572	1770	21.94	23.50	1.432	-0.11	0.682	0.977
	LTE Band 66_Ant 0	20M	QPSK	50	50	Back	10mm	DSI 4	Config1	132072	1720	22.04	23.50	1.400	-0.1	0.567	0.794
	LTE Band 66_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 4	Config1	132072	1720	22.09	23.50	1.384	-0.09	0.588	0.814
	LTE Band 66B_Ant 0	15M	QPSK	1	0	Back	10mm	DSI 4	Config1	132047	1717.5	23.08	23.50	1.102	-0.01	0.843	0.929
	LTE Band 66C_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	132072	1720	22.64	23.50	1.219	0.04	0.758	0.924

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 0/4/8	Config0	133322	683	24.61	25.70	1.285	-0.07	0.352	0.452
	LTE Band 71_Ant 0	20M	QPSK	50	24	Front	10mm	DSI 0/4/8	Config0	133322	683	23.56	24.70	1.300	-0.02	0.300	0.390
	LTE Band 71_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 0/4/8	Config0	133322	683	24.61	25.70	1.285	-0.12	0.545	0.700
	LTE Band 71_Ant 0	20M	QPSK	50	24	Back	10mm	DSI 0/4/8	Config0	133322	683	23.56	24.70	1.300	-0.11	0.441	0.573
	LTE Band 71_Ant 1	20M	QPSK	1	0	Front	10mm	DSI 0/4/8	Config1	133322	683	24.43	25.70	1.340	-0.09	0.317	0.425
	LTE Band 71_Ant 1	20M	QPSK	50	24	Front	10mm	DSI 0/4/8	Config1	133322	683	23.41	24.70	1.346	-0.12	0.265	0.357
62	LTE Band 71_Ant 1	20M	QPSK	1	0	Back	10mm	DSI 0/4/8	Config1	133322	683	24.43	25.70	1.340	-0.08	0.590	0.790
	LTE Band 71_Ant 1	20M	QPSK	50	24	Back	10mm	DSI 0/4/8	Config1	133322	683	23.41	24.70	1.346	-0.13	0.433	0.583

**<TDD LTE SAR>**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 8	Config0	40185	2549.5	18.50	19.50	1.259	62.90	1.006	-0.18	0.333	0.422
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	10mm	DSI 8	Config0	40185	2549.5	18.45	19.50	1.274	62.90	1.006	-0.19	0.328	0.420
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	40185	2549.5	18.50	19.50	1.259	62.90	1.006	-0.11	0.772	0.978
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	39750	2506	18.49	19.50	1.262	62.90	1.006	-0.11	0.753	0.956
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	40620	2593	18.43	19.50	1.279	62.90	1.006	-0.1	0.518	0.667
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	41055	2636.5	18.48	19.50	1.265	62.90	1.006	-0.19	0.524	0.667
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	41490	2680	18.45	19.50	1.274	62.90	1.006	-0.1	0.535	0.685
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 8	Config0	40185	2549.5	18.45	19.50	1.274	62.90	1.006	-0.14	0.759	0.972
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 8	Config0	39750	2506	18.42	19.50	1.282	62.90	1.006	-0.14	0.758	0.978
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 8	Config0	40620	2593	18.40	19.50	1.288	62.90	1.006	-0.11	0.529	0.686
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 8	Config0	41055	2636.5	18.44	19.50	1.276	62.90	1.006	-0.1	0.523	0.672
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 8	Config0	41490	2680	18.43	19.50	1.279	62.90	1.006	-0.14	0.525	0.676
	LTE Band 41_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 8	Config0	40185	2549.5	18.38	19.50	1.294	62.90	1.006	-0.16	0.747	0.973
	LTE Band 41HPUE_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	40185	2549.5	19.47	21.00	1.422	42.90	1.009	-0.1	0.696	0.998
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 8	Config0	40185	2549.5	18.31	19.50	1.315	62.90	1.006	0.03	0.731	0.967
	LTE Band 41_Ant 2	20M	QPSK	1	0	Front	10mm	DSI 4	Config0	39750	2506	19.45	20.50	1.274	62.90	1.006	-0.13	0.404	0.518
	LTE Band 41_Ant 2	20M	QPSK	50	0	Front	10mm	DSI 4	Config0	39750	2506	19.41	20.50	1.285	62.90	1.006	-0.16	0.414	0.535
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	39750	2506	19.45	20.50	1.274	62.90	1.006	-0.03	0.849	1.088
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	40185	2549.5	19.43	20.50	1.279	62.90	1.006	-0.02	0.892	1.148
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	40620	2593	19.38	20.50	1.294	62.90	1.006	-0.03	0.593	0.772
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	41055	2636.5	19.30	20.50	1.318	62.90	1.006	-0.06	0.593	0.786
	LTE Band 41_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	41490	2680	19.29	20.50	1.321	62.90	1.006	-0.09	0.605	0.804
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 4	Config0	39750	2506	19.41	20.50	1.285	62.90	1.006	-0.09	0.865	1.118
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 4	Config0	40185	2549.5	19.40	20.50	1.288	62.90	1.006	-0.02	0.884	1.146
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 4	Config0	40620	2593	19.35	20.50	1.303	62.90	1.006	-0.02	0.606	0.794
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 4	Config0	41055	2636.5	19.25	20.50	1.334	62.90	1.006	-0.06	0.606	0.813
	LTE Band 41_Ant 2	20M	QPSK	50	0	Back	10mm	DSI 4	Config0	41490	2680	19.24	20.50	1.337	62.90	1.006	-0.02	0.604	0.812
	LTE Band 41_Ant 2	20M	QPSK	100	0	Back	10mm	DSI 4	Config0	39750	2506	19.35	20.50	1.303	62.90	1.006	0	0.876	1.148
	LTE Band 41HPUE_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	40185	2549.5	20.82	22.00	1.312	42.90	1.009	-0.01	0.861	1.140
	LTE Band 41C_Ant 2	20M	QPSK	1	0	Back	10mm	DSI 4	Config0	40185	2549.5	19.33	20.50	1.309	62.90	1.006	0.03	0.869	1.145
	LTE Band 41_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 8	Config1	41490	2680	22.57	22.80	1.054	62.90	1.006	0	0.279	0.296
	LTE Band 41_Ant 0	20M	QPSK	50	0	Front	10mm	DSI 8	Config1	41490	2680	22.55	22.80	1.059	62.90	1.006	-0.18	0.197	0.210
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	41490	2680	22.57	22.80	1.054	62.90	1.006	-0.11	0.369	0.391
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	39750	2506	22.24	22.80	1.138	62.90	1.006	0.02	0.754	0.863
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	40185	2549.5	22.19	22.80	1.151	62.90	1.006	-0.02	0.746	0.863
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	40620	2593	22.22	22.80	1.143	62.90	1.006	-0.07	0.441	0.507
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	41055	2636.5	22.38	22.80	1.102	62.90	1.006	-0.14	0.399	0.442
	LTE Band 41_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 8	Config1	41490	2680	22.55	22.80	1.059	62.90	1.006	-0.14	0.254	0.271
	LTE Band 41_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 8	Config1	41490	2680	22.47	22.80	1.079	62.90	1.006	-0.14	0.360	0.391
	LTE Band 41HPUE_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	40185	2549.5	23.47	24.30	1.211	42.90	1.009	-0.09	0.817	0.998
	LTE Band 41C_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 8	Config1	41490	2680	22.24	22.80	1.138	62.90	1.006	-0.04	0.751	0.859
	LTE Band 41_Ant 0	20M	QPSK	1	0	Front	10mm	DSI 4	Config1	41490	2680	22.57	23.50	1.239	62.90	1.006	0	0.279	0.348
	LTE Band 41_Ant 0	20M	QPSK	50	0	Front	10mm	DSI 4	Config1	41490	2680	22.55	23.50	1.245	62.90	1.006	-0.18	0.197	0.247
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	41490	2680	22.57	23.50	1.239	62.90	1.006	-0.11	0.369	0.460
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	39750	2506	22.24	23.50	1.337	62.90	1.006	0.02	0.754	1.014
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	40185	2549.5	22.19	23.50	1.352	62.90	1.006	-0.02	0.746	1.014
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	40620	2593	22.22	23.50	1.343	62.90	1.006	-0.07	0.441	0.596
	LTE Band 41_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	41055	2636.5	22.38	23.50	1.294	62.90	1.006	-0.14	0.399	0.519
	LTE Band 41_Ant 0	20M	QPSK	50	0	Back	10mm	DSI 4	Config1	41490	2680	22.55	23.50	1.245	62.90	1.006	-0.14	0.254	0.318
	LTE Band 41_Ant 0	20M	QPSK	100	0	Back	10mm	DSI 4	Config1	41490	2680	22.47	23.50	1.268	62.90	1.006	-0.14	0.360	0.459
53	LTE Band 41HPUE_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	40185	2549.5	23.47	25.00	1.422	42.90	1.009	-0.09	0.817	1.172
	LTE Band 41C_Ant 0	20M	QPSK	1	0	Back	10mm	DSI 4	Config1	41490	2680	22.88	23.50	1.153	62.90	1.006	-0.03	0.790	0.917



<WLAN SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	OFF	6	2437	18.80	19.00	1.047	98.80	1.012	-0.09	0.294	0.312
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	OFF	6	2437	18.80	19.00	1.047	98.80	1.012	-0.05	0.633	0.671
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	OFF	1	2412	18.80	19.00	1.047	98.80	1.012	0.02	0.669	0.709
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	OFF	11	2462	18.80	19.00	1.047	98.80	1.012	0.08	0.688	0.729
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4+3(4)	OFF	6	2437	20.00	20.00	1.000	98.66	1.014	-0.02	0.394	0.400
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4+3(3)	OFF	6	2437	19.60	20.00	1.096	98.66	1.014	-0.02	0.324	0.360
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	OFF	6	2437	20.00	20.00	1.000	98.66	1.014	-0.15	0.638	0.647
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	OFF	6	2437	19.60	20.00	1.096	98.66	1.014	-0.15	0.588	0.654
64	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	OFF	1	2412	19.60	20.00	1.096	98.66	1.014	-0.15	0.709	0.788
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	OFF	1	2412	19.70	20.00	1.072	98.66	1.014	-0.15	0.666	0.724
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	OFF	11	2462	19.60	20.00	1.096	98.66	1.014	-0.12	0.705	0.784
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	OFF	11	2462	19.90	20.00	1.023	98.66	1.014	-0.12	0.612	0.635
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	ON	1	2412	13.90	14.00	1.023	98.80	1.012	-0.04	0.107	0.111
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	ON	1	2412	13.90	14.00	1.023	98.80	1.012	-0.15	0.228	0.236
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4+3(4)	ON	1	2412	17.40	17.50	1.023	98.66	1.014	0.03	0.202	0.210
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4+3(3)	ON	1	2412	18.40	18.50	1.023	98.66	1.014	0.03	0.268	0.278
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	ON	1	2412	17.40	17.50	1.023	98.66	1.014	-0.13	0.454	0.471
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	ON	1	2412	18.40	18.50	1.023	98.66	1.014	-0.13	0.448	0.465
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	ON	6	2437	17.10	17.50	1.096	98.66	1.014	-0.1	0.375	0.417
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	ON	6	2437	18.40	18.50	1.023	98.66	1.014	-0.1	0.397	0.412
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(4)	ON	11	2462	17.20	17.50	1.072	98.66	1.014	-0.1	0.237	0.258
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4+3(3)	ON	11	2462	18.30	18.50	1.047	98.66	1.014	-0.1	0.384	0.408

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 3	OFF	52	5260	17.30	18.00	1.175	98.39	1.016	-0.14	0.098	0.117
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	52	5260	17.30	18.00	1.175	98.39	1.016	-0.1	0.477	0.569
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	56	5280	17.20	17.50	1.072	98.39	1.016	-0.08	0.434	0.472
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	60	5300	17.00	17.50	1.122	98.39	1.016	-0.03	0.445	0.507
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	64	5320	16.40	17.00	1.148	98.39	1.016	0.14	0.542	0.632
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 4+3(4)	OFF	52	5260	17.60	18.00	1.096	97.78	1.023	-0.12	0.102	0.114
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 4+3(3)	OFF	52	5260	17.60	18.00	1.096	97.78	1.023	-0.12	0.004	0.004
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	52	5260	17.60	18.00	1.096	97.78	1.023	-0.03	0.498	0.559
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	52	5260	17.60	18.00	1.096	97.78	1.023	-0.03	0.419	0.470
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	56	5280	17.20	17.50	1.072	97.78	1.023	-0.07	0.574	0.629
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	56	5280	17.40	17.50	1.023	97.78	1.023	-0.07	0.482	0.505
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	60	5300	17.20	17.50	1.072	97.78	1.023	-0.17	0.574	0.629
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	60	5300	17.30	17.50	1.047	97.78	1.023	-0.17	0.501	0.537
65	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	64	5320	16.70	17.00	1.072	97.78	1.023	-0.16	0.674	0.739
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	64	5320	16.40	17.00	1.148	97.78	1.023	-0.16	0.375	0.440



FCC SAR TEST REPORT

Report No. : FA9D0616-05A

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5GHz-	802.11n-HT40 MCS0	Front	10mm	Ant 3	ON	54	5270	13.90	14.00	1.023	96.04	1.041	-0.04	0.042	0.045
	WLAN5GHz-	802.11n-HT40 MCS0	Back	10mm	Ant 3	ON	54	5270	13.90	14.00	1.023	96.04	1.041	0.03	0.160	0.170
	WLAN5GHz-	802.11a 6Mbps	Front	10mm	Ant 4+3(4)	ON	56	5280	16.80	17.00	1.047	97.78	1.023	0.17	0.120	0.129
	WLAN5GHz-	802.11a 6Mbps	Front	10mm	Ant 4+3(3)	ON	56	5280	14.10	14.50	1.096	97.78	1.023	0.17	0.052	0.058
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	ON	56	5280	16.80	17.00	1.047	97.78	1.023	0.08	0.255	0.273
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	ON	56	5280	14.10	14.50	1.096	97.78	1.023	0.08	0.238	0.267
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	ON	52	5260	16.70	17.00	1.072	97.78	1.023	0.17	0.346	0.379
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	ON	52	5260	14.10	14.50	1.096	97.78	1.023	0.17	0.179	0.201
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	ON	60	5300	16.70	17.00	1.072	97.78	1.023	-0.14	0.231	0.253
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	ON	60	5300	14.10	14.50	1.096	97.78	1.023	-0.14	0.198	0.222
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	ON	64	5320	16.90	17.00	1.023	97.78	1.023	0.15	0.245	0.256
	WLAN5GHz-	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	ON	64	5320	14.40	14.50	1.023	97.78	1.023	0.15	0.299	0.313
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 3	OFF	144	5720	17.50	18.00	1.122	98.39	1.016	0.01	0.160	0.182
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	144	5720	17.50	18.00	1.122	98.39	1.016	0.15	0.411	0.469
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	100	5500	16.80	17.50	1.175	98.39	1.016	-0.13	0.575	0.686
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	116	5580	16.50	17.00	1.122	98.39	1.016	-0.17	0.386	0.440
	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 3	OFF	124	5620	17.40	18.00	1.148	97.83	1.022	-0.05	0.348	0.408
	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 3	OFF	132	5660	17.40	18.00	1.148	97.83	1.022	-0.18	0.463	0.543
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 4+3(4)	OFF	144	5720	17.50	18.00	1.122	97.78	1.023	-0.18	0.001	0.001
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 4+3(3)	OFF	144	5720	17.70	18.00	1.072	97.78	1.023	-0.18	0.083	0.091
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	144	5720	17.50	18.00	1.122	97.78	1.023	-0.1	0.579	0.665
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	144	5720	17.70	18.00	1.072	97.78	1.023	-0.1	0.375	0.411
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	100	5500	17.10	17.50	1.096	97.78	1.023	-0.17	0.436	0.489
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	100	5500	16.90	17.50	1.148	97.78	1.023	-0.17	0.592	0.695
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	116	5580	16.40	17.00	1.148	97.78	1.023	-0.13	0.504	0.592
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	116	5580	16.70	17.00	1.072	97.78	1.023	-0.13	0.473	0.518
	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 4+3(4)	OFF	124	5620	17.50	18.00	1.122	97.83	1.022	-0.1	0.496	0.569
	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 4+3(3)	OFF	124	5620	17.80	18.00	1.047	97.83	1.022	-0.1	0.489	0.523
66	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 4+3(4)	OFF	132	5660	17.60	18.00	1.096	97.83	1.022	-0.13	0.621	0.696
	WLAN5GHz	802.11n-HT20 MCS0	Back	10mm	Ant 4+3(3)	OFF	132	5660	17.70	18.00	1.072	97.83	1.022	-0.13	0.500	0.548
	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	10mm	Ant 3	ON	138	5690	13.40	13.50	1.023	91.94	1.088	0.15	0.038	0.042
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 3	ON	138	5690	13.40	13.50	1.023	91.94	1.088	0	0.154	0.171
	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	ON	122	5610	13.90	14.00	1.023	91.96	1.087	0.103	0.002	0.002
	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	ON	122	5610	14.20	14.50	1.072	91.96	1.087	0.13	0.055	0.064
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	ON	122	5610	13.90	14.00	1.023	91.96	1.087	-0.12	0.280	0.311
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	ON	122	5610	14.20	14.50	1.072	91.96	1.087	-0.12	0.228	0.266
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	ON	106	5530	10.80	11.00	1.047	91.96	1.087	-0.17	0.117	0.133
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	ON	106	5530	10.60	11.00	1.096	91.96	1.087	-0.17	0.176	0.210
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	ON	138	5690	13.90	14.00	1.023	91.96	1.087	-0.1	0.247	0.275
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	ON	138	5690	14.10	14.50	1.096	91.96	1.087	-0.1	0.166	0.198
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 3	OFF	157	5785	16.90	17.00	1.023	98.39	1.016	0.14	0.301	0.313
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	157	5785	16.90	17.00	1.023	98.39	1.016	-0.14	0.613	0.637
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	149	5745	16.90	17.00	1.023	98.39	1.016	0.11	0.416	0.433
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 3	OFF	165	5825	16.90	17.00	1.023	98.39	1.016	0.03	0.728	0.757
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 4+3(4)	OFF	149	5745	18.30	18.50	1.047	97.78	1.023	-0.19	0.006	0.006
	WLAN5GHz	802.11a 6Mbps	Front	10mm	Ant 4+3(3)	OFF	149	5745	18.50	18.50	1.000	97.78	1.023	-0.19	0.025	0.026
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	149	5745	18.30	18.50	1.047	97.78	1.023	-0.16	0.806	0.863
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	149	5745	18.50	18.50	1.000	97.78	1.023	-0.16	0.706	0.722
67	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	157	5785	18.00	18.50	1.122	97.78	1.023	-0.01	0.867	0.995
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	157	5785	18.40	18.50	1.023	97.78	1.023	-0.01	0.890	0.932
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF	165	5825	18.40	18.50	1.023	97.78	1.023	-0.15	0.688	0.720
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF	165	5825	18.10	18.50	1.096	97.78	1.023	-0.15	0.734	0.823
	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	10mm	Ant 3	ON	155	5775	9.60	10.00	1.096	91.94	1.088	0.06	0.026	0.031
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 3	ON	155	5775	9.60	10.00	1.096	91.94	1.088	-0.11	0.116	0.138
	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(4)	ON	155	5775	14.90	15.00	1.023	91.96	1.087	-0.05	0.143	0.159
	WLAN5GHz-	802.11ac-VHT80 MCS0	Front	10mm	Ant 4+3(3)	ON	155	5775	11.40	11.50	1.023	91.96	1.087	-0.05	0.072	0.080
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(4)	ON	155	5775	14.90	15.00	1.023	91.96	1.087	0.09	0.356	0.396
	WLAN5GHz-	802.11ac-VHT80 MCS0	Back	10mm	Ant 4+3(3)	ON	155	5775	11.40	11.50	1.023	91.96	1.087	0.09	0.123	0.137

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	1Mbps	Front	10mm	Ant 4	ON	78	2480	14.81	15.50	1.172	77.03	1.081	-0.05	0.063	0.080
	Bluetooth	1Mbps	Back	10mm	Ant 4	ON	78	2480	14.81	15.50	1.172	77.03	1.081	-0.03	0.158	0.200
	Bluetooth	1Mbps	Back	10mm	Ant 4	ON	0	2402	14.75	15.50	1.188	77.03	1.081	-0.03	0.138	0.177
	Bluetooth	1Mbps	Back	10mm	Ant 4	ON	39	2441	14.94	15.50	1.137	77.03	1.081	-0.12	0.151	0.186
	Bluetooth	1Mbps	Front	10mm	Ant 4	OFF	39	2441	17.90	18.00	1.023	77.03	1.081	-0.12	0.244	0.270
	Bluetooth	1Mbps	Back	10mm	Ant 4	OFF	39	2441	17.90	18.00	1.023	77.03	1.081	-0.19	0.512	0.566
68	Bluetooth	1Mbps	Back	10mm	Ant 4	OFF	0	2402	17.70	18.00	1.071	77.03	1.081	-0.15	0.513	0.594
	Bluetooth	1Mbps	Back	10mm	Ant 4	OFF	78	2480	17.52	18.00	1.117	77.03	1.081	-0.03	0.345	0.416

13.4 Repeated SAR Measurement

No.	Band	Mode	Test Position	Gap (mm)	Antenna	Output Power State	configure	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	GSM850_Ant 0-	GPRS (4 Tx slots)	Back	10mm	ON(DSI 4)	DSI 4	Config0	189	836.4	28.83	30.00	1.309			-0.13	0.816	-	1.068
2nd	GSM850_Ant 0-	GPRS (4 Tx slots)	Back	10mm	ON(DSI 4)	DSI 4	Config0	189	836.4	28.83	30.00	1.309			0	0.769	1.06	1.007
1st	LTE Band 25_Ant 0-	20M_QPSK_50_24	Back	10mm	ON(DSI 4)	DSI 4	Config1	26590	1905	19.84	20.50	1.164			-0.14	0.992	-	1.155
2nd	LTE Band 25_Ant 0-	20M_QPSK_50_24	Back	10mm	ON(DSI 4)	DSI 4	Config1	26590	1905	19.84	20.50	1.164			0.02	0.971	1.02	1.130
1st	LTE Band 30_Ant 2-	10M_QPSK_1_49	Back	10mm	ON(DSI 4)	DSI 4	Config0	27710	2310	20.00	21.00	1.259			-0.08	0.811	-	1.021
2nd	LTE Band 30_Ant 2-	10M_QPSK_1_49	Back	10mm	ON(DSI 4)	DSI 4	Config0	27710	2310	20.00	21.00	1.259			-0.07	0.803	1.01	1.011
1st	LTE Band 66B_Ant 2	15M_QPSK_1_0	Back	10mm	ON(DSI 4)	DSI 4	Config0	132047	1717.5	22.91	23.70	1.199			-0.05	0.931	-	1.117
2nd	LTE Band 66B_Ant 2	15M_QPSK_1_0	Back	10mm	ON(DSI 4)	DSI 4	Config0	132047	1717.5	22.91	23.70	1.199			0.01	0.912	1.02	1.094
1st	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF		157	5785	18.00	18.50	1.122	97.78	1.023	-0.01	0.867	-	0.995
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF		157	5785	18.40	18.50	1.023	97.78	1.023	-0.01	0.890	-	0.932
2nd	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(4)	OFF		157	5785	18.00	18.50	1.122	97.78	1.023	0.09	0.855	1.01	0.981
	WLAN5GHz	802.11a 6Mbps	Back	10mm	Ant 4+3(3)	OFF		157	5785	18.40	18.50	1.023	97.78	1.023	0.09	0.880	1.01	0.921

General Note:

- Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
- Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/kg, only one repeated measurement is required.
- The ratio is the difference in percentage between original and repeated *measured* SAR.
- All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

13.5 LTE Band 41 Power Class 2 and Power Class 3 Linearity

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg, Separate SAR testing for Power Class 2 is not required

<LTE Band 41 Linearity Data for Head>

Config0		
Standalone	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25	26.5
Reported 1g SAR (W/kg)	0.648	0.618
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	200.17	193.41
Linearity SAR(W/kg)	0.63	
% deviation from expected linearity		-1.30%

Config1		
Standalone	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	25	26.5
Reported 1g SAR (W/kg)	0.866	0.772
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	200.17	193.41
Linearity SAR(W/kg)	0.84	
% deviation from expected linearity		-7.74%



<LTE Band 41 Linearity Data for Hotspot>

Config0		
Standalone	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	18.5	20
Reported 1g SAR (W/kg)	0.794	0.781
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	44.81	43.30
Linearity SAR(W/kg)	0.77	
% deviation from expected linearity		1.80%

Config1		
Standalone	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	22	23.5
Reported 1g SAR (W/kg)	0.772	0.757
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	100.32	96.94
Linearity SAR(W/kg)	0.75	
% deviation from expected linearity		1.48%

<LTE Band 41 Linearity Data for Body-worn>

Config0		
Standalone	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	19.5	21
Reported 1g SAR (W/kg)	0.978	0.998
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	56.42	54.51
Linearity SAR(W/kg)	0.94	
% deviation from expected linearity		5.61%

Config1		
Standalone	LTE Band 41	LTE Band 41
	(Power Class 3)	(Power Class 2)
Maximum Tune up Power (dBm)	20.5	22
Reported 1g SAR (W/kg)	1.148	1.14
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	71.02	68.63
Linearity SAR(W/kg)	1.11	
% deviation from expected linearity		2.77%

14. Simultaneous Transmission Analysis

Item	Mode	Capable TX Configurations
1	WWAN OFF	WiFi 5G SISO (Chain1) + Bluetooth
2		WiFi 5G MIMO + Bluetooth
3		WiFi 2.4G SISO (Chain0) + WiFi 5G SISO (Chain1)
4	WWAN ON	WiFi 5G SISO (Chain1) + Bluetooth
5		WiFi 5G MIMO + Bluetooth
6		WiFi 5G SISO (Chain1)
7		WiFi 5G MIMO
8		WiFi 2.4G SISO (Chain0)
9		WiFi 2.4G MIMO/CDD
10		Bluetooth
11		WiFi 2.4G SISO (Chain0) + WiFi 5G SISO (Chain1)

General Note:

- Simultaneous operation at maximum power levels when the device is neither against the body nor the head (i.e. in a mobile RF exposure condition) is addressed in Sporton's test report FA9D0616-05B
- This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications.
- The worst case WLAN reported SAR for each configuration was used for SAR summation, regardless of whether the WLAN channel has WiFi Direct and Hotspot capability. Therefore, the following summations represent the absolute worst cases for simultaneous transmission with WLAN.
- The Scaled SAR summation is calculated based on the same configuration and test position.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - Scalar SAR summation < 1.6W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{ separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$ for 1g SAR, if $SPLSR < 0.1$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band SAR < 1.6W/kg.



14.1 Head Exposure Conditions

<Standalone_WWAN OFF>

Exposure Position	1	2	3	4	5	1+3	3+5	4+5
	2.4GHz WLAN Ant 4	2.4GHz WLAN Ant 4+3	5GHz WLAN Ant 3	5GHz WLAN Ant 4+3	Bluetooth Ant 4	Summed	Summed	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Right Cheek	0.033	0.498	0.191	0.283	0.007	0.224	0.198	0.290
Right Tilted	0.019	0.062	0.033	0.329	0.018	0.052	0.051	0.347
Left Cheek	0.140	0.309	0.155	0.295	0.217	0.295	0.372	0.512
Left Tilted	0.066	0.139	0.028	0.405	0.068	0.094	0.096	0.473

<Simultaneous Transmission is active_WWAN ON>

<Config 0>

WWAN Band	Exposure Position	1	2	3	4	5	6	1+3	1+2+4	1+4+6	1+5+6
		WWAN	2.4GHz WLAN Ant 4	2.4GHz WLAN Ant 4+3	5GHz WLAN Ant 3	5GHz WLAN Ant 4+3	Bluetooth Ant 4	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM850_Ant 0	Right Cheek	0.775	0.033	0.498	0.191	0.283	0.007	1.273	0.999	0.973	1.065
	Right Tilted	0.391	0.019	0.062	0.033	0.329	0.018	0.453	0.443	0.442	0.738
	Left Cheek	0.699	0.140	0.309	0.155	0.295	0.217	1.008	0.994	1.071	1.211
	Left Tilted	0.566	0.066	0.139	0.028	0.405	0.068	0.705	0.660	0.662	1.039
GSM1900_Ant 2	Right Cheek	0.476	0.033	0.498	0.191	0.283	0.007	0.974	0.700	0.674	0.766
	Right Tilted	0.205	0.019	0.062	0.033	0.329	0.018	0.267	0.257	0.256	0.552
	Left Cheek	0.348	0.140	0.309	0.155	0.295	0.217	0.657	0.643	0.720	0.860
	Left Tilted	0.229	0.066	0.139	0.028	0.405	0.068	0.368	0.323	0.325	0.702
WCDMA II_Ant 2	Right Cheek	0.638	0.033	0.498	0.191	0.283	0.007	1.136	0.862	0.836	0.928
	Right Tilted	0.305	0.019	0.062	0.033	0.329	0.018	0.367	0.357	0.356	0.652
	Left Cheek	0.495	0.140	0.309	0.155	0.295	0.217	0.804	0.790	0.867	1.007
	Left Tilted	0.316	0.066	0.139	0.028	0.405	0.068	0.455	0.410	0.412	0.789
WCDMA IV_Ant 2	Right Cheek	0.567	0.033	0.498	0.191	0.283	0.007	1.065	0.791	0.765	0.857
	Right Tilted	0.309	0.019	0.062	0.033	0.329	0.018	0.371	0.361	0.360	0.656
	Left Cheek	0.594	0.140	0.309	0.155	0.295	0.217	0.903	0.889	0.966	1.106
	Left Tilted	0.278	0.066	0.139	0.028	0.405	0.068	0.417	0.372	0.374	0.751
WCDMA V_Ant 0	Right Cheek	0.475	0.033	0.498	0.191	0.283	0.007	0.973	0.699	0.673	0.765
	Right Tilted	0.298	0.019	0.062	0.033	0.329	0.018	0.360	0.350	0.349	0.645
	Left Cheek	0.526	0.140	0.309	0.155	0.295	0.217	0.835	0.821	0.898	1.038
	Left Tilted	0.304	0.066	0.139	0.028	0.405	0.068	0.443	0.398	0.400	0.777
CDMA BC0_Ant 0	Right Cheek	0.524	0.033	0.498	0.191	0.283	0.007	1.022	0.748	0.722	0.814
	Right Tilted	0.321	0.019	0.062	0.033	0.329	0.018	0.383	0.373	0.372	0.668
	Left Cheek	0.577	0.140	0.309	0.155	0.295	0.217	0.886	0.872	0.949	1.089
	Left Tilted	0.358	0.066	0.139	0.028	0.405	0.068	0.497	0.452	0.454	0.831
CDMA BC1_Ant 2	Right Cheek	0.737	0.033	0.498	0.191	0.283	0.007	1.235	0.961	0.935	1.027
	Right Tilted	0.308	0.019	0.062	0.033	0.329	0.018	0.370	0.360	0.359	0.655
	Left Cheek	0.437	0.140	0.309	0.155	0.295	0.217	0.746	0.732	0.809	0.949
	Left Tilted	0.269	0.066	0.139	0.028	0.405	0.068	0.408	0.363	0.365	0.742
CDMA BC10_Ant 0	Right Cheek	0.517	0.033	0.498	0.191	0.283	0.007	1.015	0.741	0.715	0.807
	Right Tilted	0.338	0.019	0.062	0.033	0.329	0.018	0.400	0.390	0.389	0.685
	Left Cheek	0.529	0.140	0.309	0.155	0.295	0.217	0.838	0.824	0.901	1.041
	Left Tilted	0.364	0.066	0.139	0.028	0.405	0.068	0.503	0.458	0.460	0.837
LTE Band 7_Ant 2	Right Cheek	0.746	0.033	0.498	0.191	0.283	0.007	1.244	0.970	0.944	1.036
	Right Tilted	0.227	0.019	0.062	0.033	0.329	0.018	0.289	0.279	0.278	0.574
	Left Cheek	0.419	0.140	0.309	0.155	0.295	0.217	0.728	0.714	0.791	0.931
	Left Tilted	0.337	0.066	0.139	0.028	0.405	0.068	0.476	0.431	0.433	0.810
LTE Band	Right Cheek	0.409	0.033	0.498	0.191	0.283	0.007	0.907	0.633	0.607	0.699



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12_Ant 0	Right Tilted	0.263	0.019	0.062	0.033	0.329	0.018	0.325	0.315	0.314	0.610
	Left Cheek	0.435	0.140	0.309	0.155	0.295	0.217	0.744	0.730	0.807	0.947
	Left Tilted	0.239	0.066	0.139	0.028	0.405	0.068	0.378	0.333	0.335	0.712
LTE Band 13_Ant 0	Right Cheek	0.412	0.033	0.498	0.191	0.283	0.007	0.910	0.636	0.610	0.702
	Right Tilted	0.257	0.019	0.062	0.033	0.329	0.018	0.319	0.309	0.308	0.604
	Left Cheek	0.484	0.140	0.309	0.155	0.295	0.217	0.793	0.779	0.856	0.996
	Left Tilted	0.270	0.066	0.139	0.028	0.405	0.068	0.409	0.364	0.366	0.743
LTE Band 14_Ant 0	Right Cheek	0.422	0.033	0.498	0.191	0.283	0.007	0.920	0.646	0.620	0.712
	Right Tilted	0.258	0.019	0.062	0.033	0.329	0.018	0.320	0.310	0.309	0.605
	Left Cheek	0.475	0.140	0.309	0.155	0.295	0.217	0.784	0.770	0.847	0.987
	Left Tilted	0.278	0.066	0.139	0.028	0.405	0.068	0.417	0.372	0.374	0.751
LTE Band 25_Ant 2	Right Cheek	0.732	0.033	0.498	0.191	0.283	0.007	1.230	0.956	0.930	1.022
	Right Tilted	0.312	0.019	0.062	0.033	0.329	0.018	0.374	0.364	0.363	0.659
	Left Cheek	0.517	0.140	0.309	0.155	0.295	0.217	0.826	0.812	0.889	1.029
	Left Tilted	0.352	0.066	0.139	0.028	0.405	0.068	0.491	0.446	0.448	0.825
LTE Band 26_Ant 0	Right Cheek	0.472	0.033	0.498	0.191	0.283	0.007	0.970	0.696	0.670	0.762
	Right Tilted	0.256	0.019	0.062	0.033	0.329	0.018	0.318	0.308	0.307	0.603
	Left Cheek	0.510	0.140	0.309	0.155	0.295	0.217	0.819	0.805	0.882	1.022
	Left Tilted	0.303	0.066	0.139	0.028	0.405	0.068	0.442	0.397	0.399	0.776
LTE Band 30_Ant 2	Right Cheek	0.220	0.033	0.498	0.191	0.283	0.007	0.718	0.444	0.418	0.510
	Right Tilted	0.094	0.019	0.062	0.033	0.329	0.018	0.156	0.146	0.145	0.441
	Left Cheek	0.107	0.140	0.309	0.155	0.295	0.217	0.416	0.402	0.479	0.619
	Left Tilted	0.136	0.066	0.139	0.028	0.405	0.068	0.275	0.230	0.232	0.609
LTE Band 41_Ant 2)	Right Cheek	0.648	0.033	0.498	0.191	0.283	0.007	1.146	0.872	0.846	0.938
	Right Tilted	0.160	0.019	0.062	0.033	0.329	0.018	0.222	0.212	0.211	0.507
	Left Cheek	0.242	0.140	0.309	0.155	0.295	0.217	0.551	0.537	0.614	0.754
	Left Tilted	0.252	0.066	0.139	0.028	0.405	0.068	0.391	0.346	0.348	0.725
LTE Band 66_Ant 2	Right Cheek	0.717	0.033	0.498	0.191	0.283	0.007	1.215	0.941	0.915	1.007
	Right Tilted	0.274	0.019	0.062	0.033	0.329	0.018	0.336	0.326	0.325	0.621
	Left Cheek	0.685	0.140	0.309	0.155	0.295	0.217	0.994	0.980	1.057	1.197
	Left Tilted	0.245	0.066	0.139	0.028	0.405	0.068	0.384	0.339	0.341	0.718
LTE Band 71_Ant 0	Right Cheek	0.350	0.033	0.498	0.191	0.283	0.007	0.848	0.574	0.548	0.640
	Right Tilted	0.158	0.019	0.062	0.033	0.329	0.018	0.220	0.210	0.209	0.505
	Left Cheek	0.384	0.140	0.309	0.155	0.295	0.217	0.693	0.679	0.756	0.896
	Left Tilted	0.171	0.066	0.139	0.028	0.405	0.068	0.310	0.265	0.267	0.644



<Config 1>

WWAN Band	Exposure Position	1	2	3	4	5	6	1+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)
		WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 4 1g SAR (W/kg)	2.4GHz WLAN Ant 4+3 1g SAR (W/kg)	5GHz WLAN Ant 3 1g SAR (W/kg)	5GHz WLAN Ant 4+3 1g SAR (W/kg)	Bluetooth Ant 4 1g SAR (W/kg)				
GSM850_Ant 1	Right Cheek	0.788	0.033	0.498	0.191	0.283	0.007	1.286	1.012	0.986	1.078
	Right Tilted	0.494	0.019	0.062	0.033	0.329	0.018	0.556	0.546	0.545	0.841
	Left Cheek	0.438	0.140	0.309	0.155	0.295	0.217	0.747	0.733	0.810	0.950
	Left Tilted	0.324	0.066	0.139	0.028	0.405	0.068	0.463	0.418	0.420	0.797
GSM1900_Ant 0	Right Cheek	0.305	0.033	0.498	0.191	0.283	0.007	0.803	0.529	0.503	0.595
	Right Tilted	0.177	0.019	0.062	0.033	0.329	0.018	0.239	0.229	0.228	0.524
	Left Cheek	0.403	0.140	0.309	0.155	0.295	0.217	0.712	0.698	0.775	0.915
	Left Tilted	0.150	0.066	0.139	0.028	0.405	0.068	0.289	0.244	0.246	0.623
WCDMA II_Ant 0	Right Cheek	0.554	0.033	0.498	0.191	0.283	0.007	1.052	0.778	0.752	0.844
	Right Tilted	0.215	0.019	0.062	0.033	0.329	0.018	0.277	0.267	0.266	0.562
	Left Cheek	0.299	0.140	0.309	0.155	0.295	0.217	0.608	0.594	0.671	0.811
	Left Tilted	0.249	0.066	0.139	0.028	0.405	0.068	0.388	0.343	0.345	0.722
WCDMA IV_Ant 0	Right Cheek	0.278	0.033	0.498	0.191	0.283	0.007	0.776	0.502	0.476	0.568
	Right Tilted	0.146	0.019	0.062	0.033	0.329	0.018	0.208	0.198	0.197	0.493
	Left Cheek	0.772	0.140	0.309	0.155	0.295	0.217	1.081	1.067	1.144	1.284
	Left Tilted	0.229	0.066	0.139	0.028	0.405	0.068	0.368	0.323	0.325	0.702
WCDMA V_Ant 1	Right Cheek	0.874	0.033	0.498	0.191	0.283	0.007	1.372	1.098	1.072	1.164
	Right Tilted	0.570	0.019	0.062	0.033	0.329	0.018	0.632	0.622	0.621	0.917
	Left Cheek	0.538	0.140	0.309	0.155	0.295	0.217	0.847	0.833	0.910	1.050
	Left Tilted	0.337	0.066	0.139	0.028	0.405	0.068	0.476	0.431	0.433	0.810
CDMA BC0_Ant 1	Right Cheek	0.892	0.033	0.498	0.191	0.283	0.007	1.390	1.116	1.090	1.182
	Right Tilted	0.553	0.019	0.062	0.033	0.329	0.018	0.615	0.605	0.604	0.900
	Left Cheek	0.550	0.140	0.309	0.155	0.295	0.217	0.859	0.845	0.922	1.062
	Left Tilted	0.399	0.066	0.139	0.028	0.405	0.068	0.538	0.493	0.495	0.872
CDMA BC1_Ant 0	Right Cheek	0.272	0.033	0.498	0.191	0.283	0.007	0.770	0.496	0.470	0.562
	Right Tilted	0.135	0.019	0.062	0.033	0.329	0.018	0.197	0.187	0.186	0.482
	Left Cheek	0.526	0.140	0.309	0.155	0.295	0.217	0.835	0.821	0.898	1.038
	Left Tilted	0.147	0.066	0.139	0.028	0.405	0.068	0.286	0.241	0.243	0.620
CDMA BC10_Ant 1	Right Cheek	0.833	0.033	0.498	0.191	0.283	0.007	1.331	1.057	1.031	1.123
	Right Tilted	0.531	0.019	0.062	0.033	0.329	0.018	0.593	0.583	0.582	0.878
	Left Cheek	0.515	0.140	0.309	0.155	0.295	0.217	0.824	0.810	0.887	1.027
	Left Tilted	0.376	0.066	0.139	0.028	0.405	0.068	0.515	0.470	0.472	0.849
LTE Band 7_Ant 0	Right Cheek	0.439	0.033	0.498	0.191	0.283	0.007	0.937	0.663	0.637	0.729
	Right Tilted	0.164	0.019	0.062	0.033	0.329	0.018	0.226	0.216	0.215	0.511
	Left Cheek	0.925	0.140	0.309	0.155	0.295	0.217	1.234	1.220	1.297	1.437
	Left Tilted	0.144	0.066	0.139	0.028	0.405	0.068	0.283	0.238	0.240	0.617
LTE Band 12_Ant 1	Right Cheek	0.981	0.033	0.498	0.191	0.283	0.007	1.479	1.205	1.179	1.271
	Right Tilted	0.912	0.019	0.062	0.033	0.329	0.018	0.974	0.964	0.963	1.259
	Left Cheek	0.537	0.140	0.309	0.155	0.295	0.217	0.846	0.832	0.909	1.049
	Left Tilted	0.420	0.066	0.139	0.028	0.405	0.068	0.559	0.514	0.516	0.893
LTE Band 25_Ant 0	Right Cheek	0.312	0.033	0.498	0.191	0.283	0.007	0.810	0.536	0.510	0.602
	Right Tilted	0.129	0.019	0.062	0.033	0.329	0.018	0.191	0.181	0.180	0.476
	Left Cheek	0.451	0.140	0.309	0.155	0.295	0.217	0.760	0.746	0.823	0.963
	Left Tilted	0.191	0.066	0.139	0.028	0.405	0.068	0.330	0.285	0.287	0.664
LTE Band	Right Cheek	0.756	0.033	0.498	0.191	0.283	0.007	1.254	0.980	0.954	1.046



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26_Ant 1	Right Tilted	0.548	0.019	0.062	0.033	0.329	0.018	0.610	0.600	0.599	0.895
	Left Cheek	0.432	0.140	0.309	0.155	0.295	0.217	0.741	0.727	0.804	0.944
	Left Tilted	0.315	0.066	0.139	0.028	0.405	0.068	0.454	0.409	0.411	0.788
LTE Band 30_Ant 0	Right Cheek	0.178	0.033	0.498	0.191	0.283	0.007	0.676	0.402	0.376	0.468
	Right Tilted	0.143	0.019	0.062	0.033	0.329	0.018	0.205	0.195	0.194	0.490
	Left Cheek	0.277	0.140	0.309	0.155	0.295	0.217	0.586	0.572	0.649	0.789
LTE Band 41_Ant 0	Left Tilted	0.073	0.066	0.139	0.028	0.405	0.068	0.212	0.167	0.169	0.546
	Right Cheek	0.328	0.033	0.498	0.191	0.283	0.007	0.826	0.552	0.526	0.618
	Right Tilted	0.271	0.019	0.062	0.033	0.329	0.018	0.333	0.323	0.322	0.618
LTE Band 66_Ant 0	Left Cheek	0.866	0.140	0.309	0.155	0.295	0.217	1.175	1.161	1.238	1.378
	Left Tilted	0.169	0.066	0.139	0.028	0.405	0.068	0.308	0.263	0.265	0.642
	Right Cheek	0.396	0.033	0.498	0.191	0.283	0.007	0.894	0.620	0.594	0.686
LTE Band 71_Ant 1	Right Tilted	0.173	0.019	0.062	0.033	0.329	0.018	0.235	0.225	0.224	0.520
	Left Cheek	0.558	0.140	0.309	0.155	0.295	0.217	0.867	0.853	0.930	1.070
	Left Tilted	0.274	0.066	0.139	0.028	0.405	0.068	0.413	0.368	0.370	0.747
LTE Band 71_Ant 1	Right Cheek	0.854	0.033	0.498	0.191	0.283	0.007	1.352	1.078	1.052	1.144
	Right Tilted	0.636	0.019	0.062	0.033	0.329	0.018	0.698	0.688	0.687	0.983
	Left Cheek	0.466	0.140	0.309	0.155	0.295	0.217	0.775	0.761	0.838	0.978
LTE Band 71_Ant 1	Left Tilted	0.383	0.066	0.139	0.028	0.405	0.068	0.522	0.477	0.479	0.856

**14.2 Hotspot Exposure Conditions**

<Simultaneous Transmission is active_WWAN ON>

<Config 0>

WWAN Band	Exposure Position	1	2	3	4	5	6	1+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)
		WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 4 1g SAR (W/kg)	2.4GHz WLAN Ant 4+3 1g SAR (W/kg)	5GHz WLAN Ant 3 1g SAR (W/kg)	5GHz WLAN Ant 4+3 1g SAR (W/kg)	Bluetooth Ant 4 1g SAR (W/kg)				
GSM850_Ant 0	Front	0.635	0.111	0.278	0.031	0.159	0.080	0.913	0.777	0.746	0.874
	Back	0.874	0.236	0.471	0.138	0.396	0.200	1.345	1.248	1.212	1.470
	Left side	0.628	0.001	0.350	0.223	0.419	0.001	0.978	0.852	0.852	1.048
	Right side	0.661	0.237	0.531	0.001	0.198	0.312	1.192	0.899	0.974	1.171
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.298						0.298	0.298	0.298	0.298
GSM1900_Ant 2	Front	0.901	0.111	0.278	0.031	0.159	0.080	1.179	1.043	1.012	1.140
	Back	0.761	0.236	0.471	0.138	0.396	0.200	1.232	1.135	1.099	1.357
	Left side	0.078	0.001	0.350	0.223	0.419	0.001	0.428	0.302	0.302	0.498
	Right side	0.549	0.237	0.531	0.001	0.198	0.312	1.080	0.787	0.862	1.059
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.230						0.230	0.230	0.230	0.230
WCDMA II_Ant 2	Front	0.631	0.111	0.278	0.031	0.159	0.080	0.909	0.773	0.742	0.870
	Back	0.845	0.236	0.471	0.138	0.396	0.200	1.316	1.219	1.183	1.441
	Left side	0.123	0.001	0.350	0.223	0.419	0.001	0.473	0.347	0.347	0.543
	Right side	0.430	0.237	0.531	0.001	0.198	0.312	0.961	0.668	0.743	0.940
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.624						0.624	0.624	0.624	0.624
WCDMA IV_Ant 2	Front	0.847	0.111	0.278	0.031	0.159	0.080	1.125	0.989	0.958	1.086
	Back	0.940	0.236	0.471	0.138	0.396	0.200	1.411	1.314	1.278	1.536
	Left side	0.168	0.001	0.350	0.223	0.419	0.001	0.518	0.392	0.392	0.588
	Right side	0.554	0.237	0.531	0.001	0.198	0.312	1.085	0.792	0.867	1.064
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.720						0.720	0.720	0.720	0.720
WCDMA V_Ant 0	Front	0.590	0.111	0.278	0.031	0.159	0.080	0.868	0.732	0.701	0.829
	Back	0.817	0.236	0.471	0.138	0.396	0.200	1.288	1.191	1.155	1.413
	Left side	0.690	0.001	0.350	0.223	0.419	0.001	1.040	0.914	0.914	1.110
	Right side	0.621	0.237	0.531	0.001	0.198	0.312	1.152	0.859	0.934	1.131
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.167						0.167	0.167	0.167	0.167
CDMA BC0_Ant 0	Front	0.714	0.111	0.278	0.031	0.159	0.080	0.992	0.856	0.825	0.953
	Back	0.998	0.236	0.471	0.138	0.396	0.200	1.469	1.372	1.336	1.594
	Left side	0.785	0.001	0.350	0.223	0.419	0.001	1.135	1.009	1.009	1.205
	Right side	0.644	0.237	0.531	0.001	0.198	0.312	1.175	0.882	0.957	1.154
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.279						0.279	0.279	0.279	0.279
CDMA BC1_Ant 2	Front	0.751	0.111	0.278	0.031	0.159	0.080	1.029	0.893	0.862	0.990
	Back	0.998	0.236	0.471	0.138	0.396	0.200	1.469	1.372	1.336	1.594
	Left side	0.114	0.001	0.350	0.223	0.419	0.001	0.464	0.338	0.338	0.534
	Right side	0.392	0.237	0.531	0.001	0.198	0.312	0.923	0.630	0.705	0.902
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.633						0.633	0.633	0.633	0.633
CDMA BC10_Ant 0	Front	0.762	0.111	0.278	0.031	0.159	0.080	1.040	0.904	0.873	1.001
	Back	0.998	0.236	0.471	0.138	0.396	0.200	1.469	1.372	1.336	1.594
	Left side	0.880	0.001	0.350	0.223	0.419	0.001	1.230	1.104	1.104	1.300
	Right side	0.690	0.237	0.531	0.001	0.198	0.312	1.221	0.928	1.003	1.200
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.251						0.251	0.251	0.251	0.251
LTE Band 7_Ant 2	Front	0.431	0.111	0.278	0.031	0.159	0.080	0.709	0.573	0.542	0.670
	Back	0.961	0.236	0.471	0.138	0.396	0.200	1.432	1.335	1.299	1.557
	Left side	0.003	0.001	0.350	0.223	0.419	0.001	0.353	0.227	0.227	0.423
	Right side	0.965	0.237	0.531	0.001	0.198	0.312	1.496	1.203	1.278	1.475
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.286						0.286	0.286	0.286	0.286
LTE Band 12_Ant 0	Front	0.544	0.111	0.278	0.031	0.159	0.080	0.822	0.686	0.655	0.783
	Back	0.696	0.236	0.471	0.138	0.396	0.200	1.167	1.070	1.034	1.292



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	Left side	0.546	0.001	0.350	0.223	0.419	0.001	0.896	0.770	0.770	0.966
	Right side	0.318	0.237	0.531	0.001	0.198	0.312	0.849	0.556	0.631	0.828
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.152						0.152	0.152	0.152	0.152
LTE Band 13_Ant 0	Front	0.512	0.111	0.278	0.031	0.159	0.080	0.790	0.654	0.623	0.751
	Back	0.640	0.236	0.471	0.138	0.396	0.200	1.111	1.014	0.978	1.236
	Left side	0.498	0.001	0.350	0.223	0.419	0.001	0.848	0.722	0.722	0.918
	Right side	0.469	0.237	0.531	0.001	0.198	0.312	1.000	0.707	0.782	0.979
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.166						0.166	0.166	0.166	0.166
LTE Band 14_Ant 0	Front	0.583	0.111	0.278	0.031	0.159	0.080	0.861	0.725	0.694	0.822
	Back	0.757	0.236	0.471	0.138	0.396	0.200	1.228	1.131	1.095	1.353
	Left side	0.627	0.001	0.350	0.223	0.419	0.001	0.977	0.851	0.851	1.047
	Right side	0.529	0.237	0.531	0.001	0.198	0.312	1.060	0.767	0.842	1.039
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.167						0.167	0.167	0.167	0.167
LTE Band 25_Ant 2	Front	0.890	0.111	0.278	0.031	0.159	0.080	1.168	1.032	1.001	1.129
	Back	0.721	0.236	0.471	0.138	0.396	0.200	1.192	1.095	1.059	1.317
	Left side	0.179	0.001	0.350	0.223	0.419	0.001	0.529	0.403	0.403	0.599
	Right side	0.471	0.237	0.531	0.001	0.198	0.312	1.002	0.709	0.784	0.981
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.311						0.311	0.311	0.311	0.311
LTE Band 26_Ant 0	Front	0.548	0.111	0.278	0.031	0.159	0.080	0.826	0.690	0.659	0.787
	Back	0.628	0.236	0.471	0.138	0.396	0.200	1.099	1.002	0.966	1.224
	Left side	0.521	0.001	0.350	0.223	0.419	0.001	0.871	0.745	0.745	0.941
	Right side	0.443	0.237	0.531	0.001	0.198	0.312	0.974	0.681	0.756	0.953
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.237						0.237	0.237	0.237	0.237
LTE Band 30_Ant 2	Front	0.418	0.111	0.278	0.031	0.159	0.080	0.696	0.560	0.529	0.657
	Back	0.846	0.236	0.471	0.138	0.396	0.200	1.317	1.220	1.184	1.442
	Left side	0.031	0.001	0.350	0.223	0.419	0.001	0.381	0.255	0.255	0.451
	Right side	0.799	0.237	0.531	0.001	0.198	0.312	1.330	1.037	1.112	1.309
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.439						0.439	0.439	0.439	0.439
LTE Band 41_Ant 2	Front	0.383	0.111	0.278	0.031	0.159	0.080	0.661	0.525	0.494	0.622
	Back	0.794	0.236	0.471	0.138	0.396	0.200	1.265	1.168	1.132	1.390
	Left side	0.001	0.001	0.350	0.223	0.419	0.001	0.351	0.225	0.225	0.421
	Right side	0.772	0.237	0.531	0.001	0.198	0.312	1.303	1.010	1.085	1.282
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.219						0.219	0.219	0.219	0.219
LTE Band 66_Ant 2	Front	0.719	0.111	0.278	0.031	0.159	0.080	0.997	0.861	0.830	0.958
	Back	0.959	0.236	0.471	0.138	0.396	0.200	1.430	1.333	1.297	1.555
	Left side	0.124	0.001	0.350	0.223	0.419	0.001	0.474	0.348	0.348	0.544
	Right side	0.505	0.237	0.531	0.001	0.198	0.312	1.036	0.743	0.818	1.015
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.679						0.679	0.679	0.679	0.679
LTE Band 71_Ant 0	Front	0.452	0.111	0.278	0.031	0.159	0.080	0.730	0.594	0.563	0.691
	Back	0.700	0.236	0.471	0.138	0.396	0.200	1.171	1.074	1.038	1.296
	Left side	0.440	0.001	0.350	0.223	0.419	0.001	0.790	0.664	0.664	0.860
	Right side	0.176	0.237	0.531	0.001	0.198	0.312	0.707	0.414	0.489	0.686
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.184						0.184	0.184	0.184	0.184

WWAN Band	Exposure Position	1	2	1+2 Summed 1g SAR (W/kg)
		WWAN	Bluetooth Ant 4	
		1g SAR (W/kg)	1g SAR (W/kg)	
GSM850_Ant 0	Front	0.635	0.270	0.905
	Back	0.874	0.594	1.468
	Left side	0.628	0.001	0.629
	Right side	0.661	0.567	1.228
	Top side		0.140	0.140
	Bottom side	0.298		0.298
GSM1900_Ant 2	Front	0.901	0.270	1.171
	Back	0.761	0.594	1.355
	Left side	0.078	0.001	0.079
	Right side	0.549	0.567	1.116
	Top side		0.140	0.140
	Bottom side	0.230		0.230
WCDMA II_Ant 2	Front	0.631	0.270	0.901
	Back	0.845	0.594	1.439
	Left side	0.123	0.001	0.124
	Right side	0.430	0.567	0.997
	Top side		0.140	0.140
	Bottom side	0.624		0.624
WCDMA IV_Ant 2	Front	0.847	0.270	1.117
	Back	0.940	0.594	1.534
	Left side	0.168	0.001	0.169
	Right side	0.554	0.567	1.121
	Top side		0.140	0.140
	Bottom side	0.720		0.720
WCDMA V_Ant 0	Front	0.590	0.270	0.860
	Back	0.817	0.594	1.411
	Left side	0.690	0.001	0.691
	Right side	0.621	0.567	1.188
	Top side		0.140	0.140
	Bottom side	0.167		0.167
CDMA BC0_Ant 0	Front	0.714	0.270	0.984
	Back	0.998	0.594	1.592
	Left side	0.785	0.001	0.786
	Right side	0.644	0.567	1.211
	Top side		0.140	0.140
	Bottom side	0.279		0.279
CDMA BC1_Ant 2	Front	0.751	0.270	1.021
	Back	0.998	0.594	1.592
	Left side	0.114	0.001	0.115
	Right side	0.392	0.567	0.959
	Top side		0.140	0.140
	Bottom side	0.633		0.633
CDMA BC10_Ant 0	Front	0.762	0.270	1.032
	Back	0.998	0.594	1.592
	Left side	0.880	0.001	0.881
	Right side	0.690	0.567	1.257
	Top side		0.140	0.140
	Bottom side	0.251		0.251
LTE Band 7_Ant 2	Front	0.431	0.270	0.701
	Back	0.961	0.594	1.555
	Left side	0.003	0.001	0.004
	Right side	0.965	0.567	1.532
	Top side		0.140	0.140
	Bottom side	0.286		0.286



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LTE Band 12_Ant 0	Front	0.544	0.270	0.814
	Back	0.696	0.594	1.290
	Left side	0.546	0.001	0.547
	Right side	0.318	0.567	0.885
	Top side		0.140	0.140
	Bottom side	0.152		0.152
LTE Band 13_Ant 0	Front	0.512	0.270	0.782
	Back	0.640	0.594	1.234
	Left side	0.498	0.001	0.499
	Right side	0.469	0.567	1.036
	Top side		0.140	0.140
	Bottom side	0.166		0.166
LTE Band 14_Ant 0	Front	0.583	0.270	0.853
	Back	0.757	0.594	1.351
	Left side	0.627	0.001	0.628
	Right side	0.529	0.567	1.096
	Top side		0.140	0.140
	Bottom side	0.167		0.167
LTE Band 25_Ant 2	Front	0.890	0.270	1.160
	Back	0.721	0.594	1.315
	Left side	0.179	0.001	0.180
	Right side	0.471	0.567	1.038
	Top side		0.140	0.140
	Bottom side	0.311		0.311
LTE Band 26_Ant 0	Front	0.548	0.270	0.818
	Back	0.628	0.594	1.222
	Left side	0.521	0.001	0.522
	Right side	0.443	0.567	1.010
	Top side		0.140	0.140
	Bottom side	0.237		0.237
LTE Band 30_Ant 2	Front	0.418	0.270	0.688
	Back	0.846	0.594	1.440
	Left side	0.031	0.001	0.032
	Right side	0.799	0.567	1.366
	Top side		0.140	0.140
	Bottom side	0.439		0.439
LTE Band 41_Ant 2	Front	0.383	0.270	0.653
	Back	0.794	0.594	1.388
	Left side	0.001	0.001	0.002
	Right side	0.772	0.567	1.339
	Top side		0.140	0.140
	Bottom side	0.219		0.219
LTE Band 66_Ant 2	Front	0.719	0.270	0.989
	Back	0.959	0.594	1.553
	Left side	0.124	0.001	0.125
	Right side	0.505	0.567	1.072
	Top side		0.140	0.140
	Bottom side	0.679		0.679
LTE Band 71_Ant 0	Front	0.452	0.270	0.722
	Back	0.700	0.594	1.294
	Left side	0.440	0.001	0.441
	Right side	0.176	0.567	0.743
	Top side		0.140	0.140
	Bottom side	0.184		0.184



<Config 1>

WWAN Band	Exposure Position	1	2	3	4	5	6	1+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)
		WWAN	2.4GHz WLAN Ant 4	2.4GHz WLAN Ant 4+3	5GHz WLAN Ant 3	5GHz WLAN Ant 4+3	Bluetooth Ant 4				
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM850_Ant 1	Front	0.458	0.111	0.278	0.031	0.159	0.080	0.736	0.600	0.569	0.697
	Back	0.962	0.236	0.471	0.138	0.396	0.200	1.433	1.336	1.300	1.558
	Left side	0.208	0.001	0.350	0.223	0.419	0.001	0.558	0.432	0.432	0.628
	Right side	0.345	0.237	0.531	0.001	0.198	0.312	0.876	0.583	0.658	0.855
	Top side	0.254	0.051	0.090	0.029	0.172	0.030	0.344	0.334	0.313	0.456
	Bottom side							0.000	0.000	0.000	0.000
GSM1900_Ant 0	Front	0.301	0.111	0.278	0.031	0.159	0.080	0.579	0.443	0.412	0.540
	Back	0.790	0.236	0.471	0.138	0.396	0.200	1.261	1.164	1.128	1.386
	Left side	0.162	0.001	0.350	0.223	0.419	0.001	0.512	0.386	0.386	0.582
	Right side	0.084	0.237	0.531	0.001	0.198	0.312	0.615	0.322	0.397	0.594
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.583						0.583	0.583	0.583	0.583
WCDMA II_Ant 0	Front	0.313	0.111	0.278	0.031	0.159	0.080	0.591	0.455	0.424	0.552
	Back	0.838	0.236	0.471	0.138	0.396	0.200	1.309	1.212	1.176	1.434
	Left side	0.091	0.001	0.350	0.223	0.419	0.001	0.441	0.315	0.315	0.511
	Right side	0.041	0.237	0.531	0.001	0.198	0.312	0.572	0.279	0.354	0.551
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.640						0.640	0.640	0.640	0.640
WCDMA IV_Ant 0	Front	0.503	0.111	0.278	0.031	0.159	0.080	0.781	0.645	0.614	0.742
	Back	0.656	0.236	0.471	0.138	0.396	0.200	1.127	1.030	0.994	1.252
	Left side	0.330	0.001	0.350	0.223	0.419	0.001	0.680	0.554	0.554	0.750
	Right side	0.119	0.237	0.531	0.001	0.198	0.312	0.650	0.357	0.432	0.629
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.580						0.580	0.580	0.580	0.580
WCDMA V_Ant 1	Front	0.527	0.111	0.278	0.031	0.159	0.080	0.805	0.669	0.638	0.766
	Back	0.780	0.236	0.471	0.138	0.396	0.200	1.251	1.154	1.118	1.376
	Left side	0.400	0.001	0.350	0.223	0.419	0.001	0.750	0.624	0.624	0.820
	Right side	0.394	0.237	0.531	0.001	0.198	0.312	0.925	0.632	0.707	0.904
	Top side	0.308	0.051	0.090	0.029	0.172	0.030	0.398	0.388	0.367	0.510
	Bottom side							0.000	0.000	0.000	0.000
CDMA BC0_Ant 1	Front	0.598	0.111	0.278	0.031	0.159	0.080	0.876	0.740	0.709	0.837
	Back	0.894	0.236	0.471	0.138	0.396	0.200	1.365	1.268	1.232	1.490
	Left side	0.513	0.001	0.350	0.223	0.419	0.001	0.863	0.737	0.737	0.933
	Right side	0.513	0.237	0.531	0.001	0.198	0.312	1.044	0.751	0.826	1.023
	Top side	0.347	0.051	0.090	0.029	0.172	0.030	0.437	0.427	0.406	0.549
	Bottom side							0.000	0.000	0.000	0.000
CDMA BC1_Ant 0	Front	0.205	0.111	0.278	0.031	0.159	0.080	0.483	0.347	0.316	0.444
	Back	0.827	0.236	0.471	0.138	0.396	0.200	1.298	1.201	1.165	1.423
	Left side	0.078	0.001	0.350	0.223	0.419	0.001	0.428	0.302	0.302	0.498
	Right side	0.021	0.237	0.531	0.001	0.198	0.312	0.552	0.259	0.334	0.531
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.374						0.374	0.374	0.374	0.374
CDMA BC10_Ant 1	Front	0.593	0.111	0.278	0.031	0.159	0.080	0.871	0.735	0.704	0.832
	Back	0.887	0.236	0.471	0.138	0.396	0.200	1.358	1.261	1.225	1.483
	Left side	0.651	0.001	0.350	0.223	0.419	0.001	1.001	0.875	0.875	1.071
	Right side	0.553	0.237	0.531	0.001	0.198	0.312	1.084	0.791	0.866	1.063
	Top side	0.291	0.051	0.090	0.029	0.172	0.030	0.381	0.371	0.350	0.493
	Bottom side							0.000	0.000	0.000	0.000
LTE Band 7_Ant 0	Front	0.582	0.111	0.278	0.031	0.159	0.080	0.860	0.724	0.693	0.821
	Back	0.924	0.236	0.471	0.138	0.396	0.200	1.395	1.298	1.262	1.520
	Left side	0.638	0.001	0.350	0.223	0.419	0.001	0.988	0.862	0.862	1.058
	Right side	0.018	0.237	0.531	0.001	0.198	0.312	0.549	0.256	0.331	0.528
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202



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	Bottom side	0.956						0.956	0.956	0.956	0.956
LTE Band 12_Ant 1	Front	0.432	0.111	0.278	0.031	0.159	0.080	0.710	0.574	0.543	0.671
	Back	0.770	0.236	0.471	0.138	0.396	0.200	1.241	1.144	1.108	1.366
	Left side	0.483	0.001	0.350	0.223	0.419	0.001	0.833	0.707	0.707	0.903
	Right side	0.195	0.237	0.531	0.001	0.198	0.312	0.726	0.433	0.508	0.705
	Top side	0.171	0.051	0.090	0.029	0.172	0.030	0.261	0.251	0.230	0.373
	Bottom side							0.000	0.000	0.000	0.000
LTE Band 25_Ant 0	Front	0.328	0.111	0.278	0.031	0.159	0.080	0.606	0.470	0.439	0.567
	Back	0.809	0.236	0.471	0.138	0.396	0.200	1.280	1.183	1.147	1.405
	Left side	0.125	0.001	0.350	0.223	0.419	0.001	0.475	0.349	0.349	0.545
	Right side	0.074	0.237	0.531	0.001	0.198	0.312	0.605	0.312	0.387	0.584
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.630						0.630	0.630	0.630	0.630
LTE Band 26_Ant 1	Front	0.463	0.111	0.278	0.031	0.159	0.080	0.741	0.605	0.574	0.702
	Back	0.697	0.236	0.471	0.138	0.396	0.200	1.168	1.071	1.035	1.293
	Left side	0.302	0.001	0.350	0.223	0.419	0.001	0.652	0.526	0.526	0.722
	Right side	0.299	0.237	0.531	0.001	0.198	0.312	0.830	0.537	0.612	0.809
	Top side	0.289	0.051	0.090	0.029	0.172	0.030	0.379	0.369	0.348	0.491
	Bottom side							0.000	0.000	0.000	0.000
LTE Band 30_Ant 0	Front	0.234	0.111	0.278	0.031	0.159	0.080	0.512	0.376	0.345	0.473
	Back	0.858	0.236	0.471	0.138	0.396	0.200	1.329	1.232	1.196	1.454
	Left side	0.188	0.001	0.350	0.223	0.419	0.001	0.538	0.412	0.412	0.608
	Right side	0.007	0.237	0.531	0.001	0.198	0.312	0.538	0.245	0.320	0.517
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.819						0.819	0.819	0.819	0.819
LTE Band 41_Ant 0	Front	0.276	0.111	0.278	0.031	0.159	0.080	0.554	0.418	0.387	0.515
	Back	0.772	0.236	0.471	0.138	0.396	0.200	1.243	1.146	1.110	1.368
	Left side	0.289	0.001	0.350	0.223	0.419	0.001	0.639	0.513	0.513	0.709
	Right side	0.009	0.237	0.531	0.001	0.198	0.312	0.540	0.247	0.322	0.519
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.212						0.212	0.212	0.212	0.212
LTE Band 66_Ant 0	Front	0.557	0.111	0.278	0.031	0.159	0.080	0.835	0.699	0.668	0.796
	Back	0.812	0.236	0.471	0.138	0.396	0.200	1.283	1.186	1.150	1.408
	Left side	0.286	0.001	0.350	0.223	0.419	0.001	0.636	0.510	0.510	0.706
	Right side	0.136	0.237	0.531	0.001	0.198	0.312	0.667	0.374	0.449	0.646
	Top side		0.051	0.090	0.029	0.172	0.030	0.090	0.080	0.059	0.202
	Bottom side	0.578						0.578	0.578	0.578	0.578
LTE Band 71_Ant 1	Front	0.425	0.111	0.278	0.031	0.159	0.080	0.703	0.567	0.536	0.664
	Back	0.790	0.236	0.471	0.138	0.396	0.200	1.261	1.164	1.128	1.386
	Left side	0.522	0.001	0.350	0.223	0.419	0.001	0.872	0.746	0.746	0.942
	Right side	0.130	0.237	0.531	0.001	0.198	0.312	0.661	0.368	0.443	0.640
	Top side	0.188	0.051	0.090	0.029	0.172	0.030	0.278	0.268	0.247	0.390
	Bottom side							0.000	0.000	0.000	0.000

WWAN Band	Exposure Position	1	2	1+2 Summed 1g SAR (W/kg)
		WWAN	Bluetooth Ant 4	
		1g SAR (W/kg)	1g SAR (W/kg)	
GSM850_Ant 1	Front	0.458	0.270	0.728
	Back	0.962	0.594	1.556
	Left side	0.208	0.001	0.209
	Right side	0.345	0.567	0.912
	Top side	0.254	0.140	0.394
	Bottom side			0.000
GSM1900_Ant 0	Front	0.301	0.270	0.571
	Back	0.790	0.594	1.384
	Left side	0.162	0.001	0.163
	Right side	0.084	0.567	0.651
	Top side		0.140	0.140
	Bottom side	0.583		0.583
WCDMA II_Ant 0	Front	0.313	0.270	0.583
	Back	0.838	0.594	1.432
	Left side	0.091	0.001	0.092
	Right side	0.041	0.567	0.608
	Top side		0.140	0.140
	Bottom side	0.640		0.640
WCDMA IV_Ant 0	Front	0.503	0.270	0.773
	Back	0.656	0.594	1.250
	Left side	0.330	0.001	0.331
	Right side	0.119	0.567	0.686
	Top side		0.140	0.140
	Bottom side	0.580		0.580
WCDMA V_Ant 1	Front	0.527	0.270	0.797
	Back	0.780	0.594	1.374
	Left side	0.400	0.001	0.401
	Right side	0.394	0.567	0.961
	Top side	0.308	0.140	0.448
	Bottom side			0.000
CDMA BC0_Ant 1	Front	0.598	0.270	0.868
	Back	0.894	0.594	1.488
	Left side	0.513	0.001	0.514
	Right side	0.513	0.567	1.080
	Top side	0.347	0.140	0.487
	Bottom side			0.000
CDMA BC1_Ant 0	Front	0.205	0.270	0.475
	Back	0.827	0.594	1.421
	Left side	0.078	0.001	0.079
	Right side	0.021	0.567	0.588
	Top side		0.140	0.140
	Bottom side	0.374		0.374
CDMA BC10_Ant 1	Front	0.593	0.270	0.863
	Back	0.887	0.594	1.481
	Left side	0.651	0.001	0.652
	Right side	0.553	0.567	1.120
	Top side	0.291	0.140	0.431
	Bottom side			0.000
LTE Band 7_Ant 0	Front	0.582	0.270	0.852
	Back	0.924	0.594	1.518
	Left side	0.638	0.001	0.639

	Right side	0.018	0.567	0.585
	Top side		0.140	0.140
	Bottom side	0.956		0.956
LTE Band 12_Ant 1	Front	0.432	0.270	0.702
	Back	0.770	0.594	1.364
	Left side	0.483	0.001	0.484
	Right side	0.195	0.567	0.762
	Top side	0.171	0.140	0.311
	Bottom side			0.000
LTE Band 25_Ant 0	Front	0.328	0.270	0.598
	Back	0.809	0.594	1.403
	Left side	0.125	0.001	0.126
	Right side	0.074	0.567	0.641
	Top side		0.140	0.140
	Bottom side	0.630		0.630
LTE Band 26_Ant 1	Front	0.463	0.270	0.733
	Back	0.697	0.594	1.291
	Left side	0.302	0.001	0.303
	Right side	0.299	0.567	0.866
	Top side	0.289	0.140	0.429
	Bottom side			0.000
LTE Band 30_Ant 0	Front	0.234	0.270	0.504
	Back	0.858	0.594	1.452
	Left side	0.188	0.001	0.189
	Right side	0.007	0.567	0.574
	Top side		0.140	0.140
	Bottom side	0.819		0.819
LTE Band 41_Ant 0	Front	0.276	0.270	0.546
	Back	0.772	0.594	1.366
	Left side	0.289	0.001	0.290
	Right side	0.009	0.567	0.576
	Top side		0.140	0.140
	Bottom side	0.212		0.212
LTE Band 66_Ant 0	Front	0.557	0.270	0.827
	Back	0.812	0.594	1.406
	Left side	0.286	0.001	0.287
	Right side	0.136	0.567	0.703
	Top side		0.140	0.140
	Bottom side	0.578		0.578
LTE Band 71_Ant 1	Front	0.425	0.270	0.695
	Back	0.790	0.594	1.384
	Left side	0.522	0.001	0.523
	Right side	0.130	0.567	0.697
	Top side	0.188	0.140	0.328
	Bottom side			0.000

14.3 Body-Worn Accessory Exposure Conditions

<Standalone_WWAN OFF>

Exposure Position	1	2	3	4	5	1+3 Summed 1g SAR (W/kg)	3+5 Summed 1g SAR (W/kg)	4+5 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 4 1g SAR (W/kg)	2.4GHz WLAN Ant 4+3 1g SAR (W/kg)	5GHz WLAN Ant 3 1g SAR (W/kg)	5GHz WLAN Ant 4+3 1g SAR (W/kg)	Bluetooth Ant 4 1g SAR (W/kg)			
Front	0.312	0.400	0.313	0.114	0.270	0.625	0.583	0.384
Back	0.729	0.788	0.757	0.995	0.594	1.486	1.351	1.589

<Simultaneous Transmission is active_WWAN ON>

<Config 0>

WWAN Band	Exposure Position	1	2	3	4	5	6	1+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)
		WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 4 1g SAR (W/kg)	2.4GHz WLAN Ant 4+3 1g SAR (W/kg)	5GHz WLAN Ant 3 1g SAR (W/kg)	5GHz WLAN Ant 4+3 1g SAR (W/kg)	Bluetooth Ant 4 1g SAR (W/kg)				
GSM850_Ant 0	Front	0.635	0.111	0.278	0.045	0.159	0.080	0.913	0.791	0.760	0.874
	Back	0.874	0.236	0.471	0.171	0.396	0.200	1.345	1.281	1.245	1.470
GSM1900_Ant 2	Front	0.901	0.111	0.278	0.045	0.159	0.080	1.179	1.057	1.026	1.140
	Back	0.761	0.236	0.471	0.171	0.396	0.200	1.232	1.168	1.132	1.357
WCDMA II_Ant 2	Front	0.631	0.111	0.278	0.045	0.159	0.080	0.909	0.787	0.756	0.870
	Back	0.845	0.236	0.471	0.171	0.396	0.200	1.316	1.252	1.216	1.441
WCDMA IV_Ant 2	Front	0.847	0.111	0.278	0.045	0.159	0.080	1.125	1.003	0.972	1.086
	Back	0.941	0.236	0.471	0.171	0.396	0.200	1.412	1.348	1.312	1.537
WCDMA V_Ant 0	Front	0.590	0.111	0.278	0.045	0.159	0.080	0.868	0.746	0.715	0.829
	Back	0.817	0.236	0.471	0.171	0.396	0.200	1.288	1.224	1.188	1.413
CDMA BC0_Ant 0	Front	0.574	0.111	0.278	0.045	0.159	0.080	0.852	0.730	0.699	0.813
	Back	0.983	0.236	0.471	0.171	0.396	0.200	1.454	1.390	1.354	1.579
CDMA BC1_Ant 2	Front	0.723	0.111	0.278	0.045	0.159	0.080	1.001	0.879	0.848	0.962
	Back	0.979	0.236	0.471	0.171	0.396	0.200	1.450	1.386	1.350	1.575
CDMA BC10_Ant 0	Front	0.768	0.111	0.278	0.045	0.159	0.080	1.046	0.924	0.893	1.007
	Back	0.998	0.236	0.471	0.171	0.396	0.200	1.469	1.405	1.369	1.594
LTE Band 7_Ant 2	Front	0.305	0.111	0.278	0.045	0.159	0.080	0.583	0.461	0.430	0.544
	Back	0.855	0.236	0.471	0.171	0.396	0.200	1.326	1.262	1.226	1.451
LTE Band 12_Ant 0	Front	0.544	0.111	0.278	0.045	0.159	0.080	0.822	0.700	0.669	0.783
	Back	0.696	0.236	0.471	0.171	0.396	0.200	1.167	1.103	1.067	1.292
LTE Band 13_Ant 0	Front	0.512	0.111	0.278	0.045	0.159	0.080	0.790	0.668	0.637	0.751
	Back	0.640	0.236	0.471	0.171	0.396	0.200	1.111	1.047	1.011	1.236
LTE Band 14_Ant 0	Front	0.583	0.111	0.278	0.045	0.159	0.080	0.861	0.739	0.708	0.822
	Back	0.757	0.236	0.471	0.171	0.396	0.200	1.228	1.164	1.128	1.353
LTE Band 25_Ant 2	Front	0.890	0.111	0.278	0.045	0.159	0.080	1.168	1.046	1.015	1.129
	Back	0.721	0.236	0.471	0.171	0.396	0.200	1.192	1.128	1.092	1.317
LTE Band 26_Ant 0	Front	0.548	0.111	0.278	0.045	0.159	0.080	0.826	0.704	0.673	0.787
	Back	0.628	0.236	0.471	0.171	0.396	0.200	1.099	1.035	0.999	1.224
LTE Band 30_Ant 2	Front	0.418	0.111	0.278	0.045	0.159	0.080	0.696	0.574	0.543	0.657
	Back	0.846	0.236	0.471	0.171	0.396	0.200	1.317	1.253	1.217	1.442
LTE Band 41_Ant 2	Front	0.422	0.111	0.278	0.045	0.159	0.080	0.700	0.578	0.547	0.661
	Back	0.998	0.236	0.471	0.171	0.396	0.200	1.469	1.405	1.369	1.594
LTE Band 66_Ant 2	Front	0.719	0.111	0.278	0.045	0.159	0.080	0.997	0.875	0.844	0.958
	Back	0.959	0.236	0.471	0.171	0.396	0.200	1.430	1.366	1.330	1.555
LTE Band 71_Ant 0	Front	0.452	0.111	0.278	0.045	0.159	0.080	0.730	0.608	0.577	0.691
	Back	0.700	0.236	0.471	0.171	0.396	0.200	1.171	1.107	1.071	1.296

WWAN Band	Exposure Position	1	2	1+2 Summed 1g SAR (W/kg)
		WWAN	Bluetooth Ant 4	
		1g SAR (W/kg)	1g SAR (W/kg)	
GSM850_Ant 0	Front	0.635	0.270	0.905
	Back	0.874	0.594	1.468
GSM1900_Ant 2	Front	0.901	0.270	1.171
	Back	0.761	0.594	1.355
WCDMA II_Ant 2	Front	0.631	0.270	0.901
	Back	0.845	0.594	1.439
WCDMA IV_Ant 2	Front	0.847	0.270	1.117
	Back	0.941	0.594	1.535
WCDMA V_Ant 0	Front	0.590	0.270	0.860
	Back	0.817	0.594	1.411
CDMA BC0_Ant 0	Front	0.574	0.270	0.844
	Back	0.983	0.594	1.577
CDMA BC1_Ant 2	Front	0.723	0.270	0.993
	Back	0.979	0.594	1.573
CDMA BC10_Ant 0	Front	0.768	0.270	1.038
	Back	0.998	0.594	1.592
LTE Band 7_Ant 2	Front	0.305	0.270	0.575
	Back	0.855	0.594	1.449
LTE Band 12_Ant 0	Front	0.544	0.270	0.814
	Back	0.696	0.594	1.290
LTE Band 13_Ant 0	Front	0.512	0.270	0.782
	Back	0.640	0.594	1.234
LTE Band 14_Ant 0	Front	0.583	0.270	0.853
	Back	0.757	0.594	1.351
LTE Band 25_Ant 2	Front	0.890	0.270	1.160
	Back	0.721	0.594	1.315
LTE Band 26_Ant 0	Front	0.548	0.270	0.818
	Back	0.628	0.594	1.222
LTE Band 30_Ant 2	Front	0.418	0.270	0.688
	Back	0.846	0.594	1.440
LTE Band 41_Ant 2	Front	0.422	0.270	0.692
	Back	0.998	0.594	1.592
LTE Band 66_Ant 2	Front	0.719	0.270	0.989
	Back	0.959	0.594	1.553
LTE Band 71_Ant 0	Front	0.452	0.270	0.722
	Back	0.700	0.594	1.294

<Config 1>

WWAN Band	Exposure Position	1	2	3	4	5	6	1+3 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	1+5+6 Summed 1g SAR (W/kg)
		WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 4 1g SAR (W/kg)	2.4GHz WLAN Ant 4+3 1g SAR (W/kg)	5GHz WLAN Ant 3 1g SAR (W/kg)	5GHz WLAN Ant 4+3 1g SAR (W/kg)	Bluetooth Ant 4 1g SAR (W/kg)				
GSM850_Ant 1	Front	0.458	0.111	0.278	0.045	0.159	0.080	0.736	0.614	0.583	0.697
	Back	0.962	0.236	0.471	0.171	0.396	0.200	1.433	1.369	1.333	1.558
GSM1900_Ant 0	Front	0.301	0.111	0.278	0.045	0.159	0.080	0.579	0.457	0.426	0.540
	Back	0.790	0.236	0.471	0.171	0.396	0.200	1.261	1.197	1.161	1.386
WCDMA II_Ant 0	Front	0.313	0.111	0.278	0.045	0.159	0.080	0.591	0.469	0.438	0.552
	Back	0.838	0.236	0.471	0.171	0.396	0.200	1.309	1.245	1.209	1.434
WCDMA IV_Ant 0	Front	0.503	0.111	0.278	0.045	0.159	0.080	0.781	0.659	0.628	0.742
	Back	0.656	0.236	0.471	0.171	0.396	0.200	1.127	1.063	1.027	1.252
WCDMA V_Ant 1	Front	0.527	0.111	0.278	0.045	0.159	0.080	0.805	0.683	0.652	0.766
	Back	0.780	0.236	0.471	0.171	0.396	0.200	1.251	1.187	1.151	1.376
CDMA BC0_Ant 1	Front	0.577	0.111	0.278	0.045	0.159	0.080	0.855	0.733	0.702	0.816
	Back	0.886	0.236	0.471	0.171	0.396	0.200	1.357	1.293	1.257	1.482
CDMA BC1_Ant 0	Front	0.209	0.111	0.278	0.045	0.159	0.080	0.487	0.365	0.334	0.448
	Back	0.933	0.236	0.471	0.171	0.396	0.200	1.404	1.340	1.304	1.529
CDMA BC10_Ant 1	Front	0.595	0.111	0.278	0.045	0.159	0.080	0.873	0.751	0.720	0.834
	Back	0.904	0.236	0.471	0.171	0.396	0.200	1.375	1.311	1.275	1.500
LTE Band 7_Ant 0	Front	0.582	0.111	0.278	0.045	0.159	0.080	0.860	0.738	0.707	0.821
	Back	0.924	0.236	0.471	0.171	0.396	0.200	1.395	1.331	1.295	1.520
LTE Band 12_Ant 1	Front	0.432	0.111	0.278	0.045	0.159	0.080	0.710	0.588	0.557	0.671
	Back	0.770	0.236	0.471	0.171	0.396	0.200	1.241	1.177	1.141	1.366
LTE Band 25_Ant 0	Front	0.328	0.111	0.278	0.045	0.159	0.080	0.606	0.484	0.453	0.567
	Back	0.809	0.236	0.471	0.171	0.396	0.200	1.280	1.216	1.180	1.405
LTE Band 26_Ant 1	Front	0.463	0.111	0.278	0.045	0.159	0.080	0.741	0.619	0.588	0.702
	Back	0.697	0.236	0.471	0.171	0.396	0.200	1.168	1.104	1.068	1.293
LTE Band 30_Ant 0	Front	0.234	0.111	0.278	0.045	0.159	0.080	0.512	0.390	0.359	0.473
	Back	0.858	0.236	0.471	0.171	0.396	0.200	1.329	1.265	1.229	1.454
LTE Band 41_Ant 0	Front	0.296	0.111	0.278	0.045	0.159	0.080	0.574	0.452	0.421	0.535
	Back	0.998	0.236	0.471	0.171	0.396	0.200	1.469	1.405	1.369	1.594
LTE Band 66_Ant 0	Front	0.557	0.111	0.278	0.045	0.159	0.080	0.835	0.713	0.682	0.796
	Back	0.812	0.236	0.471	0.171	0.396	0.200	1.283	1.219	1.183	1.408
LTE Band 71_Ant 1	Front	0.425	0.111	0.278	0.045	0.159	0.080	0.703	0.581	0.550	0.664
	Back	0.790	0.236	0.471	0.171	0.396	0.200	1.261	1.197	1.161	1.386

WWAN Band	Exposure Position	1	2	1+2 Summed 1g SAR (W/kg)
		WWAN	Bluetooth Ant 4	
		1g SAR (W/kg)	1g SAR (W/kg)	
GSM850_Ant 1	Front	0.458	0.270	0.728
	Back	0.962	0.594	1.556
GSM1900_Ant 0	Front	0.301	0.270	0.571
	Back	0.790	0.594	1.384
WCDMA II_Ant 0	Front	0.313	0.270	0.583
	Back	0.838	0.594	1.432
WCDMA IV_Ant 0	Front	0.503	0.270	0.773
	Back	0.656	0.594	1.250
WCDMA V_Ant 1	Front	0.527	0.270	0.797
	Back	0.780	0.594	1.374
CDMA BC0_Ant 1	Front	0.577	0.270	0.847
	Back	0.886	0.594	1.480
CDMA BC1_Ant 0	Front	0.209	0.270	0.479
	Back	0.933	0.594	1.527
CDMA BC10_Ant 1	Front	0.595	0.270	0.865
	Back	0.904	0.594	1.498
LTE Band 7_Ant 0	Front	0.582	0.270	0.852
	Back	0.924	0.594	1.518
LTE Band 12_Ant 1	Front	0.432	0.270	0.702
	Back	0.770	0.594	1.364
LTE Band 25_Ant 0	Front	0.328	0.270	0.598
	Back	0.809	0.594	1.403
LTE Band 26_Ant 1	Front	0.463	0.270	0.733
	Back	0.697	0.594	1.291
LTE Band 30_Ant 0	Front	0.234	0.270	0.504
	Back	0.858	0.594	1.452
LTE Band 41_Ant 0	Front	0.296	0.270	0.566
	Back	0.998	0.594	1.592
LTE Band 66_Ant 0	Front	0.557	0.270	0.827
	Back	0.812	0.594	1.406
LTE Band 71_Ant 1	Front	0.425	0.270	0.695
	Back	0.790	0.594	1.384

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15. Uncertainty Assessment

Per KDB 865664 D01 SAR measurement 100MHz to 6GHz, when the highest measured 1-g SAR within a frequency band is < 1.5 W/kg and the measured 10-g SAR within a frequency band is < 3.75 W/kg. The expanded SAR measurement uncertainty must be $\leq 30\%$, for a confidence interval of $k = 2$. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

16. References

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- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [6] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
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- [10] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [11] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [12] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [13] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.