TEST REPORT

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1. Report No : DRRFCC1904-0043(1)
2. Customer
   - Name : LG Electronics USA, Inc.
   - Address : 1000 Sylvan Ave. Englewood Cliffs, New Jersey, United States 07632
3. Use of Report : FCC Original Grant
4. Product Name / Model Name : Mobile Phone / LM-G810EAW
   FCC ID : ZNFG810EAW
5. Test Method Used : IEEE 1528-2013, FCC SAR KDB Publications (Details in test report)
   Test Specification : CFR §2.1093
6. Date of Test : 2019.03.14 ~ 2019.04.08
7. Testing Environment : Refer to appended test report.
8. Test Result : Refer to attached test report.

Affirmation	Tested by Name : BumJun Park (Signature)	Reviewed by Name : HakMin Kim (Signature)

2019 . 05 . 09 .

DT&C Co., Ltd.

If this report is required to confirmation of authenticity, please contact to report@dtnc.net

Test Report Version

Test Report No.	Date	Description
DRRFCC1904-0043	Apr. 12, 2019	Initial issue
DRRFCC1904-0043(1)	May. 9, 2019	Revise of Section Appendix B, G

Table of Contents

1. DESCRIPTION OF DEVICE

1.1 General Information

EUT type	Mobile Phone				
FCC ID	ZNFG810EAW				
Equipment model name	LM-G810EAW				
Equipment add model name	LMG810EAW, G810EAW, LM-G810EA, LMG810EA, G810EA, LM-G810RA, LMG810RA, G810RA ● 9 models are same mechanical, electrical and functional except follows. - LM-G810EA, LMG810EA, G810EA, LM-G810RA, LMG810RA, G810RA: No differences - LM-G810EAW, LMG810EAW, G810EAW: Dual SIM support(1 RF Path)				
Equipment serial no.	Identical prototype				
Mode(s) of Operation	GSM 850, GSM 1900, WCDMA 850, WCDMA 1700, WCDMA 1900, LTE Band 12, 17, 13, 26, 5, 66, 4, 2, 7, 41, 2.4 G W-LAN (802.11b/g/n-HT20/ac-VHT20), 5 G W-LAN (802.11a/n-HT20/n-HT40/ac-VHT20/ac-VHT40/ac-VHT80), Bluetooth				
TX Frequency Range	**Band**	**Mode**	**Operating Modes**	**Bandwidth**	**Frequency**
	GSM 850	GSM/GPRS/EDGE	Voice/Data	-	824.2 ~ 848.8 MHz
	GSM 1900	GSM/GPRS/EDGE	Voice/Data	-	1850.2 ~ 1909.8 MHz
	WCDMA 850	WCDMA	Voice/Data	-	826.4 ~ 846.6 MHz
	WCDMA 1700	WCDMA	Voice/Data	-	1712.4 ~ 1752.6 MHz
	WCDMA 1900	WCDMA	Voice/Data	-	1852.4 ~ 1907.6 MHz
	LTE Band 12	LTE	Voice/Data	1.4/3/5/10MHz	699.7 ~ 715.3 MHz
	LTE Band 17	LTE	Voice/Data	5/10MHz	706.5 ~ 713.5 MHz
	LTE Band 13	LTE	Voice/Data	5/10MHz	779.5 ~ 784.5 MHz
	LTE Band 26	LTE	Voice/Data	1.4/3/5/10/15MHz	814.7 ~ 848.3 MHz
	LTE Band 5	LTE	Voice/Data	1.4/3/5/10MHz	824.7 ~ 848.3 MHz
	LTE Band 66	LTE	Voice/Data	1.4/3/5/10/15/20MHz	1710.7 ~ 1779.3 MHz
	LTE Band 4	LTE	Voice/Data	1.4/3/5/10/15/20MHz	1710.7 ~ 1754.3 MHz
	LTE Band 2	LTE	Voice/Data	1.4/3/5/10/15/20MHz	1850.7 ~ 1909.3 MHz
	LTE Band 7	LTE	Voice/Data	5/10/15/20MHz	2502.5 ~ 2567.5 MHz
	LTE Band 41	LTE	Voice/Data	5/10/15/20MHz	2498.5 ~ 2687.5 MHz
	2.4 GHz W-LAN	802.11b/g/n/ac	Voice/Data	HT20/VHT20	2412 ~ 2472 MHz
	5.2 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT20	5180 ~ 5240 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5190 ~ 5230 MHz
		802.11ac	Voice/Data	VHT80	5210 MHz
	5.3 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT20	5260 ~ 5320 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5270 ~ 5310 MHz
		802.11ac	Voice/Data	VHT80	5290 MHz
	5.6 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT20	5500 ~ 5720 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5510 ~ 5710 MHz
		802.11ac	Voice/Data	VHT80	5530 ~ 5690 MHz
	5.8 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT20	5745 ~ 5825 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5755 ~ 5795 MHz
		802.11ac	Voice/Data	VHT80	5775 MHz
	Bluetooth	-	Data	-	2402 ~ 2480 MHz
RX Frequency Range	GSM 850	GSM/GPRS/EDGE	Voice/Data	-	869.2 ~ 893.8 MHz
	GSM 1900	GSM/GPRS/EDGE	Voice/Data	-	1930.2 ~ 1989.8 MHz
	WCDMA 850	WCDMA	Voice/Data	-	871.4 ~ 891.6 MHz
	WCDMA 1700	WCDMA	Voice/Data	-	2112.4 ~ 2152.6 MHz
	WCDMA 1900	WCDMA	Voice/Data	-	1932.4 ~ 1987.6 MHz
	LTE Band 12	LTE	Voice/Data	1.4/3/5/10MHz	729.7 ~ 745.3 MHz
	LTE Band 17	LTE	Voice/Data	5/10MHz	736.5 ~ 743.5 MHz
	LTE Band 13	LTE	Voice/Data	5/10MHz	748.5 ~ 753.5 MHz
	LTE Band 26	LTE	Voice/Data	1.4/3/5/10/15MHz	859.7 ~ 893.3 MHz
	LTE Band 5	LTE	Voice/Data	1.4/3/5/10MHz	869.7 ~ 893.3 MHz
	LTE Band 66	LTE	Voice/Data	1.4/3/5/10/15/20MHz	2110.7 ~ 2179.3 MHz
	LTE Band 4	LTE	Voice/Data	1.4/3/5/10/15/20MHz	2110.7 ~ 2154.3 MHz
	LTE Band 2	LTE	Voice/Data	1.4/3/5/10/15/20MHz	1930.7 ~ 1989.3 MHz
	LTE Band 7	LTE	Voice/Data	5/10/15/20MHz	2622.5 ~ 2687.5 MHz
	LTE Band 41	LTE	Voice/Data	5/10/15/20MHz	2498.5 ~ 2687.5 MHz
	2.4 GHz W-LAN	802.11b/g/n/ac	Voice/Data	HT20/VHT20	2412 ~ 2472 MHz
	5.2 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT20	5180 ~ 5240 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5190 ~ 5230 MHz
		802.11ac	Voice/Data	VHT80	5210 MHz
	5.3 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT200	5260 ~ 5320 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5270 ~ 5310 MHz
		802.11ac	Voice/Data	VHT80	5290 MHz
	5.6 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT20	5500 ~ 5720 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5510 ~ 5710 MHz
		802.11ac	Voice/Data	VHT80	5530 ~ 5690 MHz
	5.8 GHz W-LAN	802.11a/n/ac	Voice/Data	HT20/VHT20	5745 ~ 5825 MHz
		802.11n/ac	Voice/Data	HT40/VHT40	5755 ~ 5795 MHz
		802.11ac	Voice/Data	VHT80	5775 MHz
	Bluetooth	-	Data	-	2402 ~ 2480 MHz

SAR Summary Table

Equipment Class	Band	Reported SAR			
		1g SAR (W/kg)			10g SAR (W/kg)
		Head	Body-Worn	Hotspot	Phablet
PCE	GSM 850	0.10	0.33	-	-
PCE	GPRS 850	0.15	0.45	0.45	-
PCE	GSM 1900	< 0.1	0.19	-	-
PCE	GPRS 1900	< 0.1	0.28	0.32	-
PCE	WCDMA 850	0.14	0.44	0.44	-
PCE	WCDMA 1700	< 0.1	0.56	0.70	-
PCE	WCDMA 1900	< 0.1	0.51	0.64	-
PCE	LTE Band 12	0.21	0.42	0.42	-
PCE	LTE Band 17	-	-	-	-
PCE	LTE Band 13	0.16	0.43	0.43	-
PCE	LTE Band 26	0.16	0.45	0.45	-
PCE	LTE Band 5	0.17	0.45	0.45	-
PCE	LTE Band 66	< 0.1	0.51	0.67	-
PCE	LTE Band 4	-	-	-	-
PCE	LTE Band 2	< 0.1	0.59	0.70	-
PCE	LTE Band 7	0.22	**0.85**	**0.86**	**2.66**
PCE	LTE Band 41	0.10	0.32	0.40	-
DTS(SISO)	2.4 GHz W-LAN	1.07	0.30	0.30	-
DTS(MIMO)	2.4 GHz W-LAN	0.94	0.40	0.40	-
U-NII-1(SISO)	5.2 GHz W-LAN	-	-	0.26	-
U-NII-1(MIMO)	5.2 GHz W-LAN	-	-	0.28	-
U-NII-2A(SISO)	5.3 GHz W-LAN	0.54	0.30	-	0.97
U-NII-2A(MIMO)	5.3 GHz W-LAN	0.61	0.32	-	1.07
U-NII-2C(SISO)	5.6 GHz W-LAN	0.57	0.34	-	0.89
U-NII-2C(MIMO)	5.6 GHz W-LAN	0.64	0.43	-	1.17
U-NII-3(SISO)	5.8 GHz W-LAN	1.09	0.34	0.34	0.73
U-NII-3(MIMO)	5.8 GHz W-LAN	**1.19**	0.36	0.36	1.08
DSS	Bluetooth	0.18	< 0.1	< 0.1	-
Simultaneous SAR per KDB 690783 D01v01r03		**1.59**	**1.34**	**1.26**	**3.83**

FCC Equipment Class	Licensed Portable Transmitter Held to Ear (PCE) Part 15 Spread Spectrum Transmitter(DSS) Digital Transmission System(DTS) Unlicensed National Information Infrastructure (UNII)
Date(s) of Tests	2019.03.14 ~ 2019.04.08
Antenna Type	Internal Antenna
Functions	● GSM/GPRS/EDGE (GPRS/EDGE Class: 33) supported. * DTM not supported. ● No simultaneous transmission between BT & 2.4GHz WLAN ● Simultaneous transmission between [GSM, WCDMA voice & WLAN], [GPRS, WCDMA & WLAN], [LTE & WLAN]. ● VoIP is supported. ● W-LAN 2.4GHz is supported Hotspot. ● W-LAN 5 GHz is supported Hotspot in UNII B1, B3.

1.2 Power Reduction for SAR

This device uses a power reduction mechanism for SAR compliance. The power reduction mechanism (LTE B7 only) is activated when the device is used in close proximity to the user's body. FCC KDB Publication 616217 D04v01r02 Section 6 was used as a guideline for selecting SAR test distances for this device. Detailed descriptions of the power reduction mechanism are included in the operational description.

This device uses an independent fixed level WLAN power reduction mechanism for WLAN simultaneous operation during scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2 (DBS mode operation). Per FCC Guidance, the held-to-ear exposure conditions were evaluated at reduced power according to the head SAR positions described in IEEE 1528-2013. Detailed descriptions of the power reduction mechanism are included in the operational description.

1.3 Nominal and Maximum Output Power Specifications

The Nominal and Maximum Output Power Specifications are in section 9 of this test report.

1.4 DUT Antenna Locations

The overall dimensions of this device are > 9 x 5 cm. A diagram showing the location of the device of the device antenna can be found in ZNFG810EAW_Antenna Location. Since the diagonal dimension of this device is > 160 mm and < 200 mm. it is considered a "phablet".

Mode	Device Sides for SAR Testing					
	Top	Bottom	Front	Rear	Right	Left
GSM/GPRS/EDGE 850	X	O	O	O	O	X
GSM/GPRS/EDGE 1900	X	O	O	O	X	O
WCDMA 850	X	O	O	O	O	X
WCDMA 1700	X	O	O	O	X	O
WCDMA 1900	X	O	O	O	X	O
LTE Band 12	X	O	O	O	O	X
LTE Band 17	X	O	O	O	O	X
LTE Band 13	X	O	O	O	O	X
LTE Band 26	X	O	O	O	O	X
LTE Band 5	X	O	O	O	O	X
LTE Band 66	X	O	O	O	X	O
LTE Band 4	X	O	O	O	X	O
LTE Band 2	X	O	O	O	X	O
LTE Band 7	X	X	O	O	X	O
LTE Band 41	X	X	O	O	X	O
2.4G W-LAN Ant.1	O	X	O	O	X	O
2.4G W-LAN Ant.2	O	X	O	O	X	O
2.4G W-LAN MIMO	O	X	O	O	X	O
5G W-LAN Ant.1	O Note 2	X	O	O	X	O Note 2
5G W-LAN Ant.2	O Note 2	X	O	O	X	O Note 2
5G W-LAN MIMO	O Note 2	X	O	O	X	O Note 2
Bluetooth	O	X	O	O	X	O

Note 1: Particular DUT edges were not required to be evaluated for Hotspot SAR or Phablet SAR if the edges were greater than 2.5 cm from the transmitting antenna according to FCC KDB Publication 648474 D04v01r03.The antenna document shows the distances between the transmit antennas and the edges of the device.

Note 2: WLAN Hotspot UNII-1, 3 supported.

Note 3: O - Test / X - Not test.

Note 4: This DUT has NFC operations. The NFC antenna is integrated into the back side.
The SAR tests were performed with NFC antenna already incorporated.
A diagram showing the location of the device antenna can be found in ZNFG810EAW_Antenna Location.

1.5 Simultaneous Transmission Capabilities

The Simultaneous Transmission Capabilities are in section 12 of this test report.

1.6 Miscellaneous SAR Test Considerations

(A) WIFI/BT

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

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

Per FCC KDB 447498 D01v06, the 1g SAR exclusion threshold for distances < 50 mm is defined by the following equation:

$$\frac{Max\ Power\ of\ Channel\ (mW)}{Test\ Separation\ Dist\ (mm)} * \sqrt{Frequency(GHz)} \leq 3.0$$

Based on the maximum conducted power of Bluetooth (rounded to the nearest mW) and the antenna to user separation distance, body-worn and hotspot **Bluetooth SAR were required; [(22/10)*√2.480] = 3.5 (> 3.0)**. Per KDB Publication 447498 D01 v06, the maximum power of the channel was rounded to the nearest mW before calculation.

Per FCC KDB 447498 D01v06, the 10g SAR exclusion threshold for distance < 50 mm is defined by the following equation:

$$\frac{Max\ Power\ of\ Channel\ (mW)}{Test\ Separation\ Dist\ (mm)} * \sqrt{Frequency(GHz)} \leq 7.5$$

Based on the maximum conducted power of Bluetooth (rounded to the nearest mW) and the antenna to user separation distance, phablet **Bluetooth SAR was not required; [(22/5)*√2.480] = 7.1 (< 7.5)**. Per KDB Publication 447498 D01v06, the maximum power of the channel was rounded to the nearest mW before calculation.

Per FCC KDB Publication 648474 D04v01r03, this device is considered a “phablet” since the diagonal dimension is greater than 160 mm and less than 200 mm. Phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Because wireless router operations are not supported for U-NII-2A & U-NII-2C & U-NII-3 WLAN(CH 165), phablet SAR tests were performed. Phablet SAR was not evaluated for 2.4 GHz WLAN operations since wireless router 1g SAR was < 1.2 W/kg.

(B) Licensed Transmitter(s)

GSM/GPRS/EDGE DTM is not supported for US bands. Therefore, the GSM Voice modes in this report do not transmit simultaneously with GPRS/EDGE Data.

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

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

Per FCC KDB Publication 648474 D04 v01r03, this device is considered a “phablet” since the diagonal dimension is greater than 160 mm and less than 200 mm. Therefore, phablet SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg.

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

1.7 Guidance Applied

- IEEE 1528-2013
- FCC KDB Publication 941225 D01v03r01 (3G SAR Procedures)
- FCC KDB Publication 941225 D05v02r05 (SAR for LTE Devices)
- FCC KDB Publication 941225 D05Av01r02 (LTE Rel.10 KDB Inquiry Sheet)
- FCC KDB Publication 941225 D06v02r01(Hotspot Mode)
- FCC KDB Publication 248227 D01v02r02 (802.11 Wi-Fi SAR)
- FCC KDB Publication 447498 D01v06 (General RF Exposure Guidance)
- FCC KDB Publication 648474 D04v01r03 (Handset SAR)
- FCC KDB Publication 690783 D01v01r03 (SAR Listings on Grants)
- FCC KDB Publication 865664 D01v01r04 (SAR Measurement 100 MHz to 6 GHz)
- FCC KDB Publication 865664 D02v01r02 (RF Exposure Reporting)
- October 2013 TCB Workshop Notes (GPRS testing criteria)
- April 2015 TCB Workshop Notes (Simultaneous transmission summation clarified)
- October 2016 TCB Workshop Notes (Bluetooth Duty Factor)
- May 2017 TCB Workshop Notes (LTE 4x4 Downlink MIMO)
- April 2018 TCB Workshop Notes (LTE Carrier Aggregation)

1.8 Device Serial Numbers

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

2. LTE INFORMATION

LTE Information					
FCC ID	**ZNFG810EAW**				
Form Factor	Mobile Phone				
Frequency Range of each LTE transmission Band	LTE Band 12 (699.7 ~ 715.3 MHz) LTE Band 17 (706.5 ~ 713.5 MHz) LTE Band 13 (779.5 ~ 784.5 MHz) LTE Band 26 (Cell) (814.7 ~ 848.3 MHz) LTE Band 5 (Cell) (824.7 ~ 848.3 MHz) LTE Band 66 (AWS) (1710.7 ~ 1779.3 MHz) LTE Band 4 (AWS) (1710.7 ~ 1754.3 MHz) LTE Band 2 (PCS) (1850.7 ~ 1909.3 MHz) LTE Band 7 (2502.5 ~ 2567.5 MHz) LTE Band 41 (2498.5 ~ 2687.5 MHz)				
Channel Bandwidths	LTE Band 12 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz LTE Band 17 : 5 MHz, 10 MHz LTE Band 13 : 5 MHz, 10 MHz LTE Band 26 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz LTE Band 5 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz LTE Band 66 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz LTE Band 4 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz LTE Band 2 : 1.4 MHz, 3 MHz, 5 MHz, 10 MHz, 15 MHz, 20 MHz LTE Band 7: 5 MHz, 10 MHz, 15 MHz, 20 MHz LTE Band 41: 5 MHz, 10 MHz, 15 MHz, 20 MHz				
Channel Number and Frequencies(MHz)	Low	Low-Mid	Mid	Mid-High	High
LTE Band 12: 1.4 MHz	699.7 (23017)	N/A	707.5 (23095)	N/A	715.3 (23173)
LTE Band 12: 3 MHz	700.5 (23025)	N/A	707.5 (23095)	N/A	714.5 (23165)
LTE Band 12: 5 MHz	701.5 (23035)	N/A	707.5 (23095)	N/A	713.5 (23155)
LTE Band 12: 10 MHz	704.0 (23060)	N/A	**707.5 (23095)**[Note1]	N/A	711.0 (23130)
LTE Band 17: 5 MHz	706.5(23755)	N/A	710.0(23790)	N/A	713.5(23825)
LTE Band 17: 10 MHz	709.0(23780)	N/A	710.0(23790)	N/A	711.0(23800)
LTE Band 13: 5 MHz	779.5(23205)	N/A	782.0(23230)[Note2]	N/A	784.5(23255)
LTE Band 13: 10 MHz	N/A	N/A	**782.0(23230)**	N/A	N/A
LTE Band 26 (Cell): 1.4 MHz	814.7 (26697)	N/A	831.5 (26865)	N/A	848.3 (27033)
LTE Band 26 (Cell): 3 MHz	815.5 (26705)	N/A	831.5 (26865)	N/A	847.5 (27025)
LTE Band 26 (Cell): 5 MHz	816.5 (26715)	N/A	831.5 (26865)	N/A	846.5 (27015)
LTE Band 26 (Cell): 10 MHz	819.0 (26740)	N/A	831.5 (26865)	N/A	844.0 (26990)
LTE Band 26 (Cell): 15 MHz	821.5 (26765)	N/A	**831.5 (26865)**[Note3]	N/A	841.5 (26965)
LTE Band 5 (Cell): 1.4 MHz	824.7 (20407)	N/A	836.5 (20525)	N/A	848.3 (20643)
LTE Band 5 (Cell): 3 MHz	825.5 (20415)	N/A	836.5 (20525)	N/A	847.5 (20635)
LTE Band 5 (Cell): 5 MHz	826.5 (20425)	N/A	836.5 (20525)	N/A	846.5 (20625)
LTE Band 5 (Cell): 10 MHz	829.0 (20450)	N/A	**836.5 (20525)**[Note4]	N/A	844.0 (20600)
LTE Band 66 (AWS): 1.4 MHz	1710.7 (131979)	N/A	1745.0 (132322)	N/A	1779.3 (132665)
LTE Band 66 (AWS): 3 MHz	1711.5 (131987)	N/A	1745.0 (132322)	N/A	1778.5 (132657)
LTE Band 66 (AWS): 5 MHz	1712.5 (131997)	N/A	1745.0 (132322)	N/A	1777.5 (132647)
LTE Band 66 (AWS): 10 MHz	1715.0 (132022)	N/A	1745.0 (132322)	N/A	1775.0 (132622)
LTE Band 66 (AWS): 15 MHz	1717.5 (132047)	N/A	1745.0 (132322)	N/A	1772.5 (132597)
LTE Band 66 (AWS): 20 MHz	1720.0 (132072)	N/A	1745.0 (132322)	N/A	**1770.0 (132572)**
LTE Band 4 (AWS): 1.4 MHz	1710.7 (19957)	N/A	1732.5 (20175)	N/A	1754.3 (20393)
LTE Band 4 (AWS): 3 MHz	1711.5 (19965)	N/A	1732.5 (20175)	N/A	1753.5 (20385)
LTE Band 4 (AWS): 5 MHz	1712.5 (19975)	N/A	1732.5 (20175)	N/A	1752.5 (20375)
LTE Band 4 (AWS): 10 MHz	1715.0 (20000)	N/A	1732.5 (20175)	N/A	1750.0 (20350)
LTE Band 4 (AWS): 15 MHz	1717.5 (20025)	N/A	1732.5 (20175)	N/A	1747.5 (20325)
LTE Band 4 (AWS): 20 MHz	1720.0 (20050)	N/A	1732.5 (20175)[Note5]	N/A	1745.0 (20300)
LTE Band 2 (PCS): 1.4 MHz	1850.7 (18607)	N/A	1880.0 (18900)	N/A	1909.3 (19193)
LTE Band 2 (PCS): 3 MHz	1851.5 (18615)	N/A	1880.0 (18900)	N/A	1908.5 (19185)
LTE Band 2 (PCS): 5 MHz	1852.5 (18625)	N/A	1880.0 (18900)	N/A	1907.5 (19175)
LTE Band 2 (PCS): 10 MHz	1855.0 (18650)	N/A	1880.0 (18900)	N/A	1905.0 (19150)
LTE Band 2 (PCS): 15 MHz	1857.5 (18675)	N/A	1880.0 (18900)	N/A	1902.5 (19125)
LTE Band 2 (PCS): 20 MHz	**1860.0 (18700)**	N/A	1880.0 (18900)	N/A	1900.0 (19100)
LTE Band 7: 5 MHz	2502.5 (20775)	N/A	2535.0 (21100)	N/A	2567.5 (21425)
LTE Band 7: 10 MHz	2505.0 (20800)	N/A	2535.0 (21100)	N/A	2565.0 (21400)
LTE Band 7: 15 MHz	2507.5 (20825)	N/A	2535.0 (21100)	N/A	2562.5 (21375)
LTE Band 7: 20 MHz	**2510.0 (20850)**	N/A	**2535.0 (21100)**	N/A	**2560.0 (21350)**
LTE Band 41: 5 MHz	2498.5 (39675)	2545.8 (40148)	2593.0 (40620)	2640.3 (41093)	2687.5 (41565)
LTE Band 41: 10 MHz	2501.0 (39700)	2547.0 (40160)	2593.0 (40620)	2639.0 (41080)	2685.0 (41540)
LTE Band 41: 15 MHz	2503.5 (39725)	2548.3 (40173)	2593.0 (40620)	2637.8 (41068)	2682.5 (41515)
LTE Band 41: 20 MHz	2506.0 (39750)	2549.5 (40185)	2593.0 (40620)	2636.5 (41055)	**2680.0 (41490)**
UE Category	LTE Rel.14 DL UE Cat 19, UL UE Cat 5				
Modulations Supported in UL	QPSK, 16QAM, 64QAM				
LTE MPR Permanently implemented per 3GPP TS 36.101 section 6.2.3~6.2.5? (manufacturer attestation to be provided)	Yes				
A-MPR (Additional MPR) disabled for SAR Testing?	Yes				
LTE Carrier Aggregation Possible Combinations	The technical description includes all the possible carrier aggregation combinations				
LTE Additional Information	This device does not support full CA features on 3GPP Release 14. It supports only downlink carrier aggregation. All uplink communications are identical to the Release 8 Specifications. Uplink communications are done on the PCC. The following LTE Release 14 Features are not supported: Relay, HetNet, Enhanced MIMO, eICIC, WIFI Offloading, MDH, eMBMS, Cross-Carrier Scheduling, Enhanced SC-FDMA.				

Note(s)
1. LTE B12 can not contain three non-overlapping channels of 10 MHz bandwidth.
   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.
2. LTE B13 can not contain three non-overlapping channels of 5 MHz bandwidth.
   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.
3. LTE B26(Cell) can not contain three non-overlapping channels of 15 MHz bandwidth.
   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.
4. LTE B5(Cell) can not contain three non-overlapping channels of 10 MHz bandwidth.
   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.
5. LTE B4 (AWS) can not contain three non-overlapping channels of 20 MHz bandwidth.
   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.

3. INTROCUCTION

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

The FCC has adopted the guidelines for evaluating the environmental effects of radio frequency radiation in ET Docket 93-62 on Aug. 6, 1996 to protect the public and workers from the potential hazards of RF emissions due to FCC-regulated portable devices. The safety limits used for the environmental evaluation measurements are based on the criteria published by the American National Standards Institute (ANSI) for localized specific absorption rate (SAR) in IEEE/ANSI C95.1-1992 Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz. The measurement procedure described in IEEE/ANSI C95.3-2002 Recommended Practice for the Measurement of Potentially Hazardous Electromagnetic Fields - RF and Microwave is used for guidance in measuring SAR due to the RF radiation exposure from the Equipment Under Test (EUT). These criteria for SAR evaluation are similar to those recommended by the National Council on Radiation Protection and Measurements (NCRP) in Biological Effects and Exposure Criteria for Radio frequency Electromagnetic Fields," NCRP Report No. 86 NCRP, 1986, Bethesda, MD 20814. SAR is a measure of the rate of energy absorption due to exposure to an RF transmitting source. SAR values have been related to threshold levels for potential biological hazards.

SAR Definition

Specific Absorption Rate (SAR) is defined as the time derivative (rate) of the incremental energy (dU) absorbed by (dissipated in) an incremental mass (dm) contained in a volume element (dV) of a given density (ρ) It is also defined as the rate of RF energy absorption per unit mass at a point in an absorbing body (see Fig. 3.1)

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

Fig. 3.1 SAR Mathematical Equation

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

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

where:

σ = conductivity of the tissue-simulating material (S/m)

ρ = mass density of the tissue-simulating material (kg/m^3)

E = Total RMS electric field strength (V/m)

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

4. DOSIMETRIC ASSESSMENT

4.1 Measurement Procedure

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

1. The SAR distribution at the exposed side of the head or body was measured at a distance no greater than 5.0 mm from the inner surface of the shell. The area covered the entire dimension of the device-head and body interface and the horizontal grid resolution was determined per FCC KDB Publication 865664 D01v01r04 (See Table 4.1) and IEEE1528-2013.

2. The point SAR measurement was taken at the maximum SAR region determined from Step 1 to enable the monitoring of SAR fluctuations/drifts during the 1g/10g cube evaluation. SAR at this fixed point was measured and used as a reference value.

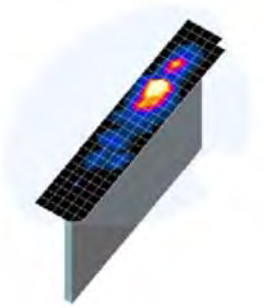

Figure 4.1
Sample SAR Area Scan

3. Based on the area scan data, the peak of the region with maximum SAR was determined by spline interpolation. Around this point, a volume was assessed according to the measurement resolution and volume size requirements of FCC KDB Publication 865664 D01v01r04 (See Table 4.1) and IEEE 1528-2013. On the basis of this data set, the spatial peak SAR value was evaluated with the following procedure (see references or the DASY manual online for more details):

   a. SAR values at the inner surface of the phantom are extrapolated from the measured values along the line away from the surface with spacing no greater than that in Table 4.1. The extrapolation was based on a least-squares algorithm. A polynomial of the fourth order was calculated through the points in the z-axis (normal to the phantom shell).

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

   c. All neighboring volumes were evaluated until no neighboring volume with a higher average value was found.

4. The SAR reference value, at the same location as step 2, was re-measured after the zoom scan was complete to calculate the SAR drift. If the drift deviated by more than 5%, the SAR test and drift measurements were repeated.

			≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface			5 mm ± 1 mm	½·δ·ln(2) mm ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location			30° ± 1°	20° ± 1°
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 ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{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: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$ mm	
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 IEEE Std 1528-2013 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB Publication 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.

Table 4.1 Area and Zoom Scan Resolutions per FCC KDB Publication 865664 D01v01r04*

5. DEFINITION OF REFERENCE POINTS

5.1 Ear Reference Point

Figure 5.1 shows the front, back and side views of the SAM Twin Phantom. The point"M" is the reference point for the center of the mouth, "LE" is the left ear reference point(ERP), and "RE" is the right ERP. The ERPs are 15 mm posterior to the entrance to the Ear canal (EEC) along the B-M line (Back-Mouth), as shown in Figure 5.1. The plane Passing, through the two ear canals and M is defined as the Reference Plane. The line N-F (Neck- Front) is perpendicular to the reference plane and passing through the RE (or LE) is called the Reference Pivoting Line (see Figure 5.1). Line B-M is perpendicular to the N-F line. Both N-F and B-M lines are marked on the external phantom shell to facilitate handset positioning.

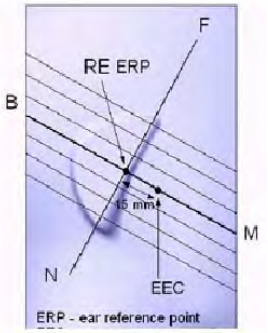

Figure 5.1
Close-up side view of ERP

5.2 Handset Reference Points

Two imaginary lines on the handset were established: the vertical centerline and the horizontal line. The test device was placed in a normal operating position with the "test device reference point" located along the "vertical centerline" on the front of the device aligned to the "ear reference point" (See Fig. 5.3). The "test device reference point" was than located at the same level as the center of the ear reference point. The test device was positioned so that the "vertical centerline" was bisecting the front surface of the handset at it's top and bottom edges, positioning the "ear reference point" on the outer surface of the both the left and right head phantoms on the ear reference point.

Figure 5.2 Front, back and side view SAM Twin Phantom

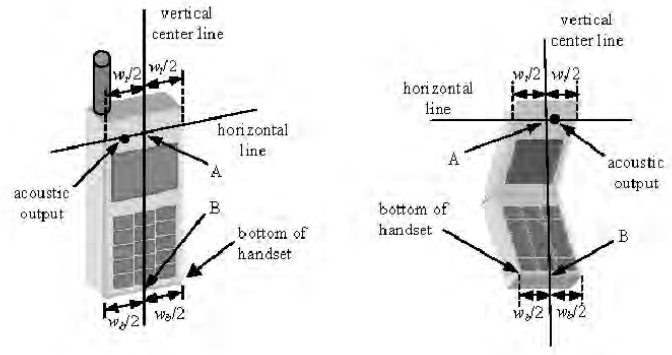

Figure 5.3 Handset Vertical Center & Horizontal Line Reference Points

6. TEST CONFIGURATION POSITIONS FOR HANDSETS

6.1 Device Holder

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

6.2 Positioning for Cheek/Touch

1. The test device was positioned with 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 6.1), such that the plane defined by the vertical center line and the horizontal line of the phone is approximately parallel to the sagittal plane of the phantom.

Figure 6.1 Front, Side and Top View of Cheek/Touch Position

2. The handset was translated towards the phantom along the line passing through RE & LE until the handset touches the ear.
3. While maintaining the handset in this plane, the handset was rotated around the LE-RE line until the vertical centerline was in the plane normal to MB-NF including the line MB (reference plane).
4. The phone was hen rotated around the vertical centerline until the phone (horizontal line) was symmetrical was respect to the line NF.
5. While maintaining the vertical centerline in the reference plane, keeping point A on the line passing through RE and LE, and maintaining the phone contact with the ear, the handset was rotated about the line NF until any point on the handset made contact with a phantom point below the ear (cheek). (See Figure 6.2)

6.3 Positioning for Ear / 15 ° Tilt

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

1. While maintaining the orientation of the phone, the phone was retracted parallel to the reference plane far enough to enable a rotation of the phone by 15 degree.
2. The phone was then rotated around the horizontal line by 15 degree.
3. While maintaining the orientation of the phone, the phone was moved parallel to the reference plane until any part of the phone touches the head. (In this position, point A was located on the line RE-LE). The tilted position is obtained when the contact is on the pinna. If the contact was at any location other than the pinna, the angle of the phone would then be reduced. The tilted position was obtained when any part of the phone was in contact of the ear as well as a second part of the phone was in contact with the head (see Figure 6.3).

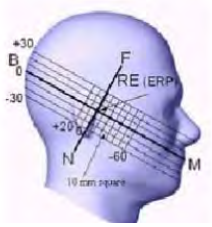

Figure 6.2 Side view w/relevant markings

Figure 6.3 Front, Side and Top View of Ear/15º Position

6.4 Body-Worn Accessory Configurations

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 6.4). Per FCC KDB Publication 648474 D04v01r03, Body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB Publication 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for a body-worn accessory, measured without a headset connected to the handset, is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a headset attached to the handset.

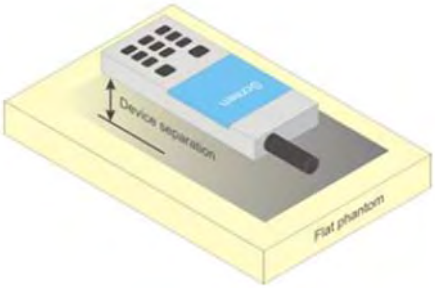

Figure 6.4 Sample Body-Worn Diagram

Accessories for Body-worn operation configurations are divided into two categories: those that do not contain metallic components and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are tested with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

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

6.5 Extremity Exposure Configurations

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

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

6.6 Wireless Router Configurations

Some battery-operated handsets have the capability to transmit and receive user data through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06v02r01 where SAR test considerations for handsets (L x W ≥ 9 cm x 5 cm) are based on a composite test separation distance of 10 mm from the front the front, rear and edges of the device containing transmitting antennas within 2.5 cm of their edges, determined from general mixed use conditions for this type of devices. When the same wireless transmission configuration is used for testing body-worn accessory and hotspot mode SAR, respectively, in voice and data mode, SAR results for the most conservative test separation distance configuration may be used to support both SAR conditions.

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 transmitter 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 KDB Publication 447498 D01v06 procedures. The “Portable Hotspot” feature on the handset was not activated during SAR assessment, to ensure the SAR measurements were evaluated for a single transmission frequency RF signal at a time.

6.7 Phablet Configurations

For smart phones with a display diagonal > 150 mm or an overall diagonal dimension > 160 mm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, the phablets procedures outlined in KDB Publication 648474 D04v01r03 should be applied to evaluate SAR compliance. A device marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance. In addition to the normally required head and body-worn accessory SAR test procedures required for handsets, the UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna ≤ 25mm from that surface or edge, in direct contact with the phantom, for 10g SAR. The UMPC mini-tablet 1g SAR at 5 mm is not required. When hotspot mode applies, 10g SAR is required only for the surfaces and edges with hotspot mode 1g SAR > 1.2 W/kg.

6.8 Proximity Sensor Configurations

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

When the device’s antenna is within a certain distance of the user. The sensor activates and reduces the maximum allowed output power. However, the sensor is not active when the device is moved beyond the sensor triggering distance and the maximum output power is no longer limited. Therefore, additional evaluation is needed in the vicinity of the triggering distance to ensure SAR is compliant when the device is allowed to operate at a selecting SAR test distances for this device at these additional test positions. Sensor triggering distance summary data is included in Appendix G.

7. RF EXPOSURE LIMITS

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.

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 employment, who have been made fully aware of the potential for exposure and can exercise control over their exposure. This exposure category is also applicable when the exposure is of a transient nature due to incidental passage through a location where the exposure levels may be higher than the general population/uncontrolled limits, but the exposed person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Table 8.1.SAR Human Exposure Specified in ANSI/IEEE C95.1-1992

	HUMAN EXPOSURE LIMITS	
	General Public Exposure (W/kg) or (mW/g)	Occupational Exposure (W/kg) or (mW/g)
SPATIAL PEAK SAR * (Brain)	1.60	8.00
SPATIAL AVERAGE SAR ** (Whole Body)	0.08	0.40
SPATIAL PEAK SAR *** (Hands / Feet / Ankle / Wrist)	4.00	20.0

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

Uncontrolled Environments are defined as locations where there is the exposure of individuals who have no knowledge or control of their exposure.

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).

8. FCC MEASUREMENT PROCEDURES

Power measurements were performed using a base station simulator under digital average power.

8.1 Measured and Reported SAR

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

8.2 Procedures Used to Establish RF Signal for SAR

The following procedures are according to FCC KDB Publication 941225 D01v03r01.

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

8.3 SAR Measurement Conditions for WCDMA (UMTS)

8.3.1 Output Power Verification

Maximum output power is measured on the High, Middle and Low channels for each applicable transmission band according to the general descriptions in section 5.2 of 3GPP TS 34.121, using the appropriate RMC or AMR with TPC (transmit power control) set to all “1s”.

Maximum output power is verified on the High, Middle and Low channels according to the general, descriptions in section 5.2 of 3GPP TS 34.121 (release 5), using the appropriate RMC with TPC,(transmit power control) set to all “1s” or applying the required inner loop power control procedures to maintain maximum output power while HSUPA is active. Results for all applicable physical channel configurations (DPCCH, DPDCHn and spreading codes, HS-DPCCH etc) are tabulated in this test report. All configurations that are not supported by the DUT or cannot be measured due to technical or equipment limitations are identified.

8.3.2 Head SAR Measurements for Handsets

SAR for head exposure configurations is measured using the 12.2 kbps RMC with TPC bits configured to all “1s”. SAR in AMR configurations is not required when the maximum average output of each RF channel for 12.2 kbps AMR is less than 0.25 dB higher than that measured in12.2 kbps RMC. Otherwise, SAR is measured on the maximum output channel in 12.2 AMR with a 3.4 kbps SRB (signaling radio bearer) using the exposure configuration that resulted in the highest SAR for that RF channel in the 12.2 kbps RMC mode.

8.3.3 Body SAR Measurements

SAR for body exposure configurations is measured using the 12.2 kbps RMC with the TPC bits all“1s”.

8.3.4 Release 5 HSDPA Data Devices

The following procedures are applicable to HSDPA data devices operating under 3GPP Release 5. SAR is required for devices in body-worn accessory and other body exposure conditions, including handsets and data modems operating in various electronic devices. HSDPA operates in conjunction with WCDMA and requires an active DPCCH. The default test configuration is to measure SAR in WCDMA with HSDPA remain inactive, to establish a radio link between the test device and a communication test set using a 12.2 kbps RMC configured in Test Loop Mode 1. SAR for HSDPA is selectively measured using the highest reported SAR configuration in WCDMA, with an FRC in H-set 1 and a 12.2 kbps RMC. SAR is selectively confirmed for other physical channel configurations (DPCCH & DPDCHn) according to exposure conditions, device operating capabilities and maximum output power specified for production units, including tune-up tolerance by applying the 3G SAR test reduction procedures. Maximum output power is verified according to the applicable versions of 3GPP TS 34.121. SAR must be measured based on these maximum output conditions and requirements in KDB Publication 447498, with respect to the UE Categories, and explained in the SAR report. When Maximum Power Reduction (MPR) applies, the implementations must be clearly identified in the SAR report to support test results according to Cubic Metric (CM) and, as appropriate, Enhanced MPR (E-MPR) requirements.

Sub-test	β_c	β_d	β_d *(SF)*	β_c/β_d	β_{hs} (1)	CM (dB)(2)
1	2/15	15/15	64	2/15	4/15	0.0
2	12/15(3)	15/15(3)	64	12/15(3)	24/15	1.0
3	15/15	8/15	64	15/8	30/15	1.5
4	15/15	4/15	64	15/4	30/15	1.5

Note 1: Δ_{ACK}, Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$
Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15.
Note 3: For subtest 2 the β_c/β_d ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 11/15 and β_d = 15/15.

Figure 9.1 Table 1

8.3.5 Release 6 HSUPA Data Devices

The following procedures are applicable to HSPA (HSUPA/HSDPA) data devices operating under 3GPP Release 6. SAR is required for devices in body-worn accessory and other body exposure conditions, including handsets and data modems operating in various electronic devices. HSUPA operates in conjunction with WCDMA and HSDPA. SAR is initially measured in WCDMA test configurations with HSPA remain inactive. The default test configuration is to establish a radio link between the test device and a communication test set to configure a 12.2 kbps RMC in Test Loop Mode 1. SAR for HSPA is selectively measured with HS-DPCCH, E-DPCCH and E-DPDCH, all enabled, along with a 12.2 kbps RMC using the highest reported SAR configuration in WCDMA with 12.2 kbps RMC only.
An FRC is configured according to HS-DPCCH Sub-test 1 using H-set 1 and QPSK. HSPA is configured according to E-DCH Sub-test 5 requirements. SAR for other HSPA sub-test configurations is confirmed selectively according to exposure conditions, E-DCH UE Category and maximum output power of production units, including tune-up tolerance by applying the 3G SAR test reduction procedure. Maximum output power is verified according to procedures in applicable versions of 3GPP TS 34.121. SAR must be measured based on these maximum output conditions and requirements in KDB Publication 447498, with respect to the UE Categories for HS-DPCCH and HSPA, and explained in the SAR report. When Maximum Power Reduction (MPR) applies, the implementations must be clearly identified in the SAR report to support test results according to Cubic Metric (CM) and, as appropriate, Enhanced MPR (E-MPR) requirements.

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs}(1)	β_{ec}	β_{ed}	β_{ed} (SF)	β_{ed} (codes)	CM(2) (dB)	MPR (dB)	AG(4) Index	E-TFCI
1	11/15(3)	15/15(3)	64	11/15(3)	22/15	209/225	1039/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1}: 47/15 β_{ed2}: 47/15	4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15(4)	15/15(4)	64	15/15(4)	30/15	24/15	134/15	4	1	1.0	0.0	21	81

Note 1: Δ_{ACK}, Δ_{NACK} and $\Delta_{CQI} = 8 \Leftrightarrow A_{hs} = \beta_{hs}/\beta_c = 30/15 \Leftrightarrow \beta_{hs} = 30/15 * \beta_c$.
Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.
Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_d = 15/15.
Note 4: For subtest 5 the β_c/β_d ratio of 15/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signaled gain factors for the reference TFC (TF1, TF1) to β_c = 14/15 and β_d = 15/15.
Note 5: Testing UE using E-DPDCH Physical Layer category 1 Sub-test 3 is not required according to TS 25.306 Table 5.1g.
Note 6: β_{ed} cannot be set directly; it is set by Absolute Grant Value.

Figure 9.2 Table 2

8.3.6 SAR Measurement Conditions for DC-HSDPA

In the following DB 941225 D01v03r01 procedures, the mode tested for SAR is referred to as the primary mode. The equivalent modes considered for SAR test reduction are denoted as secondary modes. Both primary and secondary modes must be in the same frequency band. When the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode. This is referred to as the 3G SAR test reduction procedure in the following SAR test guidance, where the primary mode is identified in the applicable wireless mode test procedures and the secondary mode is wireless mode being considered for SAR test reduction by that procedure. When the 3G SAR test reduction procedure is not satisfied, it is identified as “otherwise” in the applicable procedures; SAR measurement is required for the secondary mode.

SAR is required for Rel. 8 DC-HSDPA when SAR is required for Rel. 5 HSDPA; otherwise, the 3G SAR test reduction procedure is applied to DC-HSDPA with 12.2 kbps RMC as the primary mode. Power is measured for DC-HSDPA according to the H-Set 12, FRC configuration in Table C.8.1.12 of 3GPP TS 34.121-1 to determine SAR test reduction. A primary and a secondary serving HS-DSCH Cell are required to perform the power measurement and for the results to be acceptable.

8.4 SAR Measurement Conditions for LTE

LTE modes were tested according to FCC KDB 941225 D05v02r05 publication. Please see notes after the tabulated SAR data for required test configurations. Establishing connections with base station simulators ensure a consistent means for testing SAR and are recommended for evaluating SAR. The call simulator was used for LTE output power measurement and SAR testing. Closed loop power control was used so the UE transmits with maximum output power during SAR testing. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).

8.4.1 Spectrum Plots for RB Configurations

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

8.4.2 MPR

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

8.4.3 A-MPR

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

8.4.4 Required RB Size and RB Offsets for SAR Testing

According to FCC KDB 941225 D05v02r05:

a. Per Section 5.2.1, SAR is required for QPSK 1 RB Allocation for the largest bandwidth
   i. The required channel and offset combination with the highest maximum output power is required for SAR.
   ii. When the reported SAR is $\leq$ 0.8 W/kg, testing of the remaining RB offset configurations and required test channel is not required. Otherwise, SAR is required for the remaining required test channels using the RB offset configuration with highest output power for that channel.
   iii. When the reported SAR for a required test channel is > 1.45 W/kg, SAR is required for all RB offset configurations for that channel.
b. Per Section 5.2.2, SAR is required for 50% RB allocation using the largest bandwidth following the same procedures outlined in Section 5.2.1.
c. Per Section 5.2.3, QPSK SAR is not required for the 100% allocation when the highest maximum output power for the 100% allocation is less than the highest maximum output power of the 1 RB and 50% RB allocations and the reported SAR for the 1 RB and 50% RB allocations is < 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.
d. Per Section 5.2.4 and 5.3, SAR tests for higher order modulations and lower bandwidths configurations are not required when the conducted power of the required test configurations determined by Sections 5.2.1 through 5.2.3 is less than or equal to 0.5 dB higher than the equivalent configuration using QPSK modulation and when the QPSK SAR for those configurations is < 1.45 W/kg.

8.4.5 64QAM uplink

(1) Per KDB 941225 D05 V02r05, we'll measure conducted powers per Section 5.1 for all uplink modulations (QPSK, 16QAM, 64QAM) and include in the test report.

(2) From these power measurements, we will apply the procedures in Section 5.2.4 ("Higher Order Modulations") to determine SAR test reduction for 16QAM and 64QAM test cases.

8.4.6 LTE TDD Consideration setup for SAR measurement

According to KDB 941225 D05 SAR for LTE Devices v02r05 for Time-Division Duplex (TDD) systems, SAR must be tested using a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by the defined 3GPP LTE TDD configurations.

SAR was tested with the highest transmission duty factor (63.33 %) using Uplink-downlink configuration 0 and Special subframe configuration 6.

LTE TDD Band 41 supports 3GPP TS 36.211 section 4.2 for Type 2 Frame and Table 4.2-2 for uplink-downlink configuration and Table 4.2-1 for Special subframe configurations.

Table 4.2-1: Configuration of special subframe (lengths of DwPTS/GP/UpPTS).

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			-	-	-
8	$24144 \cdot T_s$			-	-	-

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	U	D	S	U	U	D

Calculated Duty Cycle = Extended cyclic prefix in uplink * (Ts) * # of S + # of U

Ts = 1/(15000 * 2048) seconds

Example for calculated Duty Cycle for Uplink-Downlink Configuration 0:

Calculated Duty Cycle = 5120 * [1/(15000 * 2048)] * 2 + 6 ms = 63.33 %

8.4.7 Downlink Only Carrier Aggregation and Downlink Only MIMO

Conducted power measurements with LTE Carrier Aggregation (CA) (downlink only) active are made in accordance to KDB Publication 941225 D05Av01r02, April 2018 TCB Workshop notes (LTE Carrier Aggregation) and May 2017 TCB Workshop (LTE 4x4 Downlink MIMO). The RCC connection is only handled by one cell, the primary component carrier (PCC) for downlink and uplink communications. After making a data connection to the PCC, the UE device adds secondary component carrier(s) (SCC) on the downlink only. All uplink communications and acknowledgements remain identical to specifications when downlink carrier aggregation is inactive on the PCC. For every supported combination of downlink only carrier aggregation, additional conducted output powers are measured with the downlink carrier aggregation active for configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band. Per FCC KDB Publication 941225 D05Av01r02, no SAR measurements are required for carrier aggregation configurations when the average output power with downlink only carrier aggregation active is not more than 0.25 dB higher than the average output power with downlink only carrier aggregation inactive.

8.4.8 May 2017 TCB Workshop notes (LTE Downlink 4x4 MIMO)

This device supports LTE DL 4X4 MIMO. So the SAR test exclusion for LTE DL 4X4 MIMO was determined by using May 2017 TCB Workshop notes (LTE Downlink MIMO).

1) SAR test exclusion for LTE DL 4x4 MIMO should be determined by

i) UL power measurements with and without DL MIMO

ii) Using the highest UL output power configuration without DL MIMO to confirm that UL output with DL MIMO is < ¼ dB higher

iii) for DL MIMO with carrier aggregation, the same SAR test exclusion procedure should be considered

8.5 SAR Testing with 802.11 Transmitters

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

8.5.1 General Device Setup

Chipset based test mode software is hardware dependent and generally varies among manufacturers. The device operating parameters established in test mode for SAR measurements must be identical to those programmed in production units, including output power levels, amplifier gain settings and other RF performance tuning parameters. The test frequencies should correspond to actual channel frequencies defined for domestic use. SAR for devices with switched diversity should be measured with only one antenna transmitting at a time during each SAR measurement, according to a fixed modulation and data rate. The same data pattern should be used for all measurements.

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

8.5.2 U-NII and U-NII-2A

For devices that operate in only one of the U-NII-1 and U-NII-2A bands, the normally required SAR procedures for OFDM configurations are applied. For devices that operate in both U-NII bands using the same transmitter and antenna(s), SAR test reduction is determined according to the following, with respect to the highest reported SAR and maximum output power specified for production units. The procedures are applied independently to each exposure configuration; for example, head, body, hotspot mode etc.

1) When the same maximum output power is specified for both bands, begin SAR measurement in U-NII-2A band by applying the OFDM SAR requirements. If the highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band for that configuration (802.11 mode and exposure condition); otherwise, each band is tested independently for SAR.
2) When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration; otherwise, each band is tested independently for SAR.

8.5.3 U-NII-2C and U-NII-3

The frequency range covered by U-NII-2C and U-NII-3 is 380 MHz (5.47 – 5.85 GHz), which requires a minimum of at least two SAR probe calibration frequency points to support SAR measurements.

When Terminal Doppler Weather Rader (TDWR) restriction applies, the channels at 5.60 – 5.65 GHz in U-NII-2C band must be disabled with acceptable mechanisms and documented in the equipment certification.

Unless band gap channels are permanently disabled, SAR must be considered for these channels. When band gap channels are disabled, each band is tested independently according to the normally required OFDM SAR measurements and probe calibration frequency points requirements.

8.5.4 Initial Test Position Procedure

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

8.5.5 2.4 GHz SAR Test Requirements

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

1) When the reported SAR of the highest measured maximum output power channel for the exposure configuration is ≤ 0.8 W/kg, no further SAR testing is required for 802.11b DSSS in that exposure configuration.
2) When the reported SAR is > 0.8 W/kg, SAR is required for that exposure configuration using the next highest measured output power channel. When any reported SAR is > 1.2 W/kg, SAR is required for the third channel; i.e., all channels require testing.

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

8.5.6 OFDM Transmission Mode and SAR Test Channel Selection

For the 2.4 GHz and 5 GHz bands, when the same maximum output power was specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration with the largest channel bandwidth, lowest order modulation and lowest data rate. When the maximum output power of a channel is the same for equivalent OFDM configurations; for example, 802.11a and 802.11n or 802.11g and 802.11n with the same channel bandwidth, modulation and data rate etc., the lower order 802.11 mode i.e., 802.11a, then 80211n or 802.11g then 802.11n is used for SAR measurement. When the maximum output power ware the same for multiple test channels, either according to the default or additional power measurement requirements, SAR is measured using the channel closest to the middle of the frequency band or aggregated band. When there are multiple channels with the same maximum output power, SAR is measured using the higher number channel.

8.5.7 Initial Test Configuration Procedure

For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration is determined for each frequency band and aggregated band, according to the transmission mode with the highest maximum output power specified for SAR measurements. When the same maximum output is specified for multiple OFDM transmission mode configurations in a frequency band or aggregated band, SAR is measured using the configuration(s) with the largest channel bandwidth, lowest order modulation, and lowest data rate. The channel of the transmission mode with the highest average RF output conducted power will be the initial test configuration.

When the reported SAR is ≤ 0.8 W/kg, no additional measurements on other test channels are required.
Otherwise, SAR is evaluated using the subsequent highest average RF output channel until the reported SAR result is ≤ 1.2 W/kg or all channels are measured.

8.5.8 Subsequent Test Configuration Procedures

For OFDM configurations, in each frequency band and aggregated band, SAR is evaluated for initial test configuration using the fixed test position or the initial test position procedure, when applicable. When the highest reported SAR for the initial test configuration, adjusted by the ratio of the subsequent test configuration to initial test configuration specified maximum output power is ≤ 1.2 W/kg, no additional SAR testing for the subsequent test configurations is required.

8.5.9 MIMO SAR Considerations

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

9. RF CONDUCTED POWERS

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

9.1 GSM Nominal and Maximum Output Power Spec and Conducted Powers

Band & Mode		Voice[dBm]	Burst Average GMSK [dBm]				Burst Average GMSK [dBm]			
		1 TX Slot	1 TX Slot	2 TX Slot	3 TX Slot	4 TX Slot	1 TX Slot	2 TX Slot	3 TX Slot	4 TX Slot
GSM/GPRS/EDGE 850	Maximum	33.7	33.7	32.7	30.7	28.7	26.2	25.7	25.2	24.7
	Nominal	33.2	33.2	32.2	30.2	28.2	25.7	25.2	24.7	24.2
GSM/GPRSEDGE 1900	Maximum	30.7	30.7	29.7	27.7	25.7	25.7	25.2	25.2	24.7
	Nominal	30.2	30.2	29.2	27.2	25.2	25.2	24.7	24.7	24.2

Table 9.1.1 GSM Nominal and Maximum Output Power Spec

Band	Channel	Maximum Burst-Averaged Output Power(dBm)								
		Voice	GPRS/EDGE Data (GMSK)				EDGE Data (8-PSK)			
		GSM CS 1 Slot	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
GSM850	128	33.2	33.2	32.6	30.6	28.5	26.0	25.3	24.5	23.8
	190	33.2	33.2	32.6	30.6	28.5	25.8	25.1	24.2	23.5
	251	33.2	33.2	32.6	30.6	28.7	25.8	25.0	24.1	23.5
PCS 1900	512	30.2	30.2	29.3	27.4	25.7	25.1	24.6	24.6	24.0
	661	30.7	30.7	29.6	27.7	25.7	24.7	24.5	24.3	23.6
	810	30.7	30.7	29.5	27.6	25.2	24.9	24.7	24.5	23.8
Band	Channel	Calculated Maximum Frame-Averaged Output Power(dBm)								
		Voice	GPRS/EDGE Data (GMSK)				EDGE Data (8-PSK)			
		GSM CS 1 Slot	GPRS 1 TX Slot	GPRS 2 TX Slot	GPRS 3 TX Slot	GPRS 4 TX Slot	EDGE 1 TX Slot	EDGE 2 TX Slot	EDGE 3 TX Slot	EDGE 4 TX Slot
GSM850	128	24.17	24.17	26.58	26.34	25.49	16.97	19.28	20.24	20.79
	190	24.17	24.17	26.58	26.34	25.49	16.77	19.08	19.94	20.49
	251	24.17	24.17	26.58	26.34	25.69	16.77	18.98	19.84	20.49
PCS 1900	512	21.21	21.21	23.28	23.14	22.69	16.07	18.58	20.34	20.99
	661	21.67	21.67	23.58	23.44	22.69	15.67	18.48	20.04	20.59
	810	21.67	21.67	23.48	23.34	22.22	15.87	18.68	20.24	20.79
GSM850	Frame Avg. Targets:	24.17	24.17	26.18	25.94	25.19	16.67	19.18	20.44	21.19
PCS 1900		21.17	21.17	23.18	22.94	22.19	16.17	18.68	20.44	21.19

Table 9.1.2 GSM Conducted Power

Note:

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

GPRS Multislot class: 33 (max 4 TX Uplink slots)
EDGE Multislot class: 33 (max 4 TX Uplink slots)
DTM Multislot Class: N/A

Figure 9.1 Power Measurement Setup

9.2 WCDMA Nominal and Maximum Output Power Spec and Conducted Powers

3GPP Release Version	Mode			Cellular Band (dBm)	AWS Band (dBm)	PCS Band (dBm)	3GPP MPR (dB)
99	WCDMA	Voice	Maximum	25.5	25.5	25.5	-
			Nominal	25.0	25.0	25.0	
5	HSDPA	Subtest 1	Maximum	25.5	25.5	25.5	0
			Nominal	25.0	25.0	25.0	
5		Subtest 2	Maximum	25.5	25.5	25.5	0
			Nominal	25.0	25.0	25.0	
5		Subtest 3	Maximum	25.0	25.0	25.0	0.5
			Nominal	24.5	24.5	24.5	
5		Subtest 4	Maximum	25.0	25.0	25.0	0.5
			Nominal	24.5	24.5	24.5	
6	HSUPA	Subtest 1	Maximum	25.5	25.5	25.5	0
			Nominal	25.0	25.0	25.0	
6		Subtest 2	Maximum	23.5	23.5	23.5	2
			Nominal	23.0	23.0	23.0	
6		Subtest 3	Maximum	24.5	24.5	24.5	1
			Nominal	24.0	24.0	24.0	
6		Subtest 4	Maximum	23.5	23.5	23.5	2
			Nominal	23.0	23.0	23.0	
6		Subtest 5	Maximum	25.5	25.5	25.5	0
			Nominal	25.0	25.0	25.0	
8	DC-HSDPA	Subtest 1	Maximum	25.5	25.5	25.5	0
			Nominal	25.0	25.0	25.0	
8		Subtest 2	Maximum	25.5	25.5	25.5	0
			Nominal	25.0	25.0	25.0	
8		Subtest 3	Maximum	25.0	25.0	25.0	0.5
			Nominal	24.5	24.5	24.5	
8		Subtest 4	Maximum	25.0	25.0	25.0	0.5
			Nominal	24.5	24.5	24.5	

Table 9.2.1 WCDMA Nominal and Maximum Output Power Spec

3GPP Release Version	Mode	3GPP 34.121 Subtest	Cellular Band (dBm)			AWS Band (dBm)			PCS Band (dBm)			3GPP MPR (dB)
			4132	4183	4233	1312	1412	1513	9262	9400	9538	
99	WCDMA	12.2 kbps RMC	25.37	25.41	25.42	25.19	25.27	25.31	25.26	25.27	25.30	-
99		12.2 kbps AMR	25.35	25.35	25.38	25.18	25.26	25.30	25.24	25.25	25.20	-
5	HSDPA	Subtest 1	25.40	25.43	25.41	25.17	25.28	25.32	25.24	25.33	24.98	0
5		Subtest 2	25.37	25.41	25.39	25.17	25.28	25.30	25.18	25.28	24.82	0
5		Subtest 3	24.87	24.91	24.90	24.65	24.75	24.80	24.68	24.79	24.42	0.5
5		Subtest 4	24.85	24.91	24.87	24.66	24.74	24.80	24.65	24.80	24.41	0.5
6	HSUPA	Subtest 1	25.18	25.21	25.23	24.99	24.88	25.14	25.14	25.19	24.84	0
6		Subtest 2	23.41	23.42	23.44	23.19	23.32	23.33	23.19	23.30	22.78	2
6		Subtest 3	24.38	24.42	24.40	24.18	24.41	24.32	24.18	24.31	23.79	1
6		Subtest 4	23.43	23.43	23.41	23.19	23.30	23.34	23.18	23.29	22.83	2
6		Subtest 5	25.43	25.45	25.45	25.19	25.29	25.33	25.26	25.32	24.83	0
8	DC-HSDPA	Subtest 1	25.22	25.31	24.86	25.14	25.19	25.30	25.15	25.31	24.96	0
8		Subtest 2	25.21	25.25	24.71	25.13	25.18	25.25	25.14	25.27	24.81	0
8		Subtest 3	24.66	24.77	24.30	24.62	24.71	24.77	24.66	24.77	24.40	0.5
8		Subtest 4	24.64	24.71	24.30	24.61	24.70	24.75	24.61	24.75	24.38	0.5

Table 9.2.2 WCDMA Conducted Power

WCDMA SAR was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. HSPA SAR was not required since the average output power of the HSPA subtests was not more than 0.25 dB higher than the RMC level and SAR was less than 1.2 W/kg.

The manufacturer declares that the HSDPA, HSUPA and DC-HSDPA transmitter's power will not exceed the R99 maximum transmit power in devices based on Qualcomm's HSPA chipset solutions.

DC-HSDPA considerations

- 3GPP Specification 34.121-1 Release 8 Ver 8.10.0 was used for DC-HSDPA guidance.
- H-Set 12 (QPSK) was confirmed to be used during DC-HSDPA measurements.
- The DUT supports UE category 24 for HSDPA.

Figure 9.2 Power Measurement Setup

9.3 LTE Nominal and Maximum Output Power Spec and Conducted Powers

Band & Mode		Modulated Average[dBm]
LTE Band 12	Maximum	25.5
	Nominal	25.0

Table 9.3.1.1 Nominal and Maximum Output Power Spec

1) LTE Band 12

LTE Band 12 Conducted Power– 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23095 (707.5 MHz) Conducted Power (dBm)	MPR Allowed Per 3GPP(dB)	MPR (dB)
QPSK	1	0	24.88	≤ 1	0
	1	**25**	**25.11**		
	1	49	24.94		
	25	0	23.97		1
	25	**12**	**24.02**		
	25	25	23.93		
	50	0	24.00		1
16QAM	1	0	24.06	≤ 1	1
	1	25	24.22		
	1	49	24.11		
	25	0	23.03	≤ 2	2
	25	12	23.05		
	25	25	23.03		
	50	0	23.02		2
64QAM	1	0	23.03	≤ 2	2
	1	25	23.18		
	1	49	23.08		
	25	0	22.02	≤ 3	3
	25	12	22.04		
	25	25	22.03		
	50	0	21.95		3

Table 9.3.1.2 LTE Conducted Power

Note : LTE B12 can not contain three non-overlapping channels of 10 MHz bandwidth.
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.

LTE Band 12 Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 23035 (701.5 MHz)	Mid Channel 23095 (707.5 MHz)	High Channel 23155 (713.5 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	24.98	24.94	24.91	≤ 1	0
	1	12	24.85	24.83	24.84		
	1	24	24.87	24.85	24.84		
	12	0	24.05	24.04	23.97		1
	12	6	23.92	23.98	23.91		
	12	13	24.02	23.96	23.90		
	25	0	23.98	24.00	23.89		1
16QAM	1	0	24.16	24.07	24.11	≤ 1	1
	1	12	24.04	24.01	23.98		
	1	24	24.05	24.00	23.98		
	12	0	23.10	23.08	23.05	≤ 2	2
	12	6	22.96	23.03	22.96		
	12	13	23.06	23.00	22.93		
	25	0	23.02	23.03	22.97		2
64QAM	1	0	23.17	23.10	23.08	≤ 2	2
	1	12	22.98	22.98	22.94		
	1	24	23.02	22.94	22.98		
	12	0	22.13	22.10	22.06	≤ 3	3
	12	6	22.00	22.07	21.96		
	12	13	22.07	22.04	21.97		
	15	0	22.00	22.02	21.94		3

Table 9.3.1.3 LTE Conducted Power

LTE Band 12 Conducted Power– 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23025 (700.5 MHz)	23095 (707.5 MHz)	23165 (714.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	24.96	24.94	24.89	≤ 1	0
	1	7	24.95	24.89	24.90		
	1	14	24.97	24.95	24.94		
	8	0	24.05	24.02	23.96		1
	8	4	23.99	23.97	23.93		
	8	7	24.04	23.99	23.96		
	15	0	23.99	23.97	23.94		1
16QAM	1	0	24.13	24.10	24.05	≤ 1	1
	1	7	24.12	24.08	24.08		
	1	14	24.14	24.14	24.11		
	8	0	23.18	23.13	23.06	≤ 2	2
	8	4	23.12	23.10	23.05		
	8	7	23.15	23.11	23.06		
	15	0	23.09	23.05	22.99		2
64QAM	1	0	23.13	23.06	23.00	≤ 2	2
	1	7	23.10	23.03	23.00		
	1	14	23.12	23.08	23.08		
	8	0	22.13	22.12	22.07	≤ 3	3
	8	4	22.08	22.04	22.05		
	8	7	22.14	22.06	22.06		
	15	0	22.03	22.00	21.95		3

Table 9.3.1.4 LTE Conducted Power

LTE Band 12 Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			23017 (699.7 MHz)	23095 (707.5 MHz)	23173 (715.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	25.10	25.08	24.98	≤ 1	0
	1	2	24.96	24.89	24.86		
	1	5	24.97	24.92	24.87		
	3	0	25.09	25.04	25.02		0
	3	2	25.06	24.97	24.95		
	3	3	25.05	25.01	24.99		
	6	0	24.06	24.01	24.00		1
16QAM	1	0	24.24	24.20	24.15	≤ 1	1
	1	2	24.09	24.09	24.03		
	1	5	24.13	24.11	24.00		
	3	0	24.11	24.08	24.05		1
	3	2	24.07	24.02	23.95		
	3	3	24.09	24.09	24.01		
	6	0	23.16	23.15	23.09	≤ 2	2
64QAM	1	0	23.23	23.15	23.12	≤ 2	2
	1	2	23.09	23.06	22.99		
	1	5	23.10	23.03	23.03		
	3	0	23.28	23.15	23.19		2
	3	2	23.22	23.14	23.12		
	3	3	23.22	23.14	23.15		
	6	0	22.09	22.04	22.00	≤ 3	3

Table 9.3.1.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 13	Maximum	25.5
	Nominal	25.0

Table 9.3.2.1 Nominal and Maximum Output Power Spec

2) LTE Band 13

LTE Band 13 Conducted Power– 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power (dBm)	MPR Allowed Per 3GPP(dB)	MPR (dB)
QPSK	1	0	24.89	≤ 1	0
	1	**25**	**25.12**		
	1	49	24.95		
	25	0	23.98		1
	25	**12**	**24.03**		
	25	25	23.94		
	50	0	24.01		1
16QAM	1	0	24.07	≤ 1	1
	1	25	24.23		
	1	49	24.12		
	25	0	23.04	≤ 2	2
	25	12	23.06		
	25	25	23.04		
	50	0	23.03		2
64QAM	1	0	23.04	≤ 2	2
	1	25	23.19		
	1	49	23.09		
	25	0	22.03	≤ 3	3
	25	12	22.05		
	25	25	22.04		
	50	0	21.96		3

Table 9.3.2.2 LTE Conducted Power

LTE Band 13 Conducted Power– 5 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 23230 (782.0 MHz) Conducted Power (dBm)	MPR Allowed Per 3GPP(dB)	MPR (dB)
QPSK	1	0	24.95	≤ 1	0
	1	12	24.84		
	1	24	24.86		
	12	0	24.05		1
	12	6	23.99		
	12	13	23.97		
	25	0	24.01		1
16QAM	1	0	24.08	≤ 1	1
	1	12	24.02		
	1	24	24.01		
	12	0	23.09	≤ 2	2
	12	6	23.04		
	12	13	23.01		
	25	0	23.04		2
64QAM	1	0	23.11	≤ 2	2
	1	12	22.99		
	1	24	22.95		
	12	0	22.11	≤ 3	3
	12	6	22.08		
	12	13	22.05		
	15	0	22.03		3

Table 9.3.2.3 LTE Conducted Power

Note : LTE B13 can not contain three non-overlapping channels of 5 MHz bandwidth.
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.

Band & Mode		Modulated Average[dBm]
LTE Band 26	Maximum	25.5
	Nominal	25.0

Table 9.3.3.1 Nominal and Maximum Output Power Spec

3) LTE Band 26 (Cell)

LTE Band 26 (Cell) Conducted Power– 15 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 26865 (831.5 MHz) Conducted Power (dBm)	MPR Allowed Per 3GPP(dB)	MPR (dB)
QPSK	**1**	**0**	25.07	≤ 1	0
	1	36	25.03		
	1	74	24.81		
	36	**0**	24.16		1
	36	18	23.99		
	36	37	23.92		
	75	0	23.92		1
16QAM	1	0	24.26	≤ 1	1
	1	36	24.22		
	1	74	23.98		
	36	0	22.98	≤ 2	2
	36	18	22.96		
	36	37	22.92		
	75	0	22.92		2
64QAM	1	0	23.23	≤ 2	2
	1	36	23.14		
	1	74	22.93		
	36	0	22.04	≤ 3	3
	36	18	22.02		
	36	37	21.94		
	75	0	21.92		3

Table 9.3.3.2 LTE Conducted Power

Note : LTE B26 can not contain three non-overlapping channels of 10 MHz bandwidth.
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.

LTE Band 26 (Cell) Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26740 (819.0 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 26990 (844.0 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	25.05	25.02	25.01	≤ 1	0
	1	25	24.89	24.83	24.83		
	1	49	24.90	24.81	24.89		
	25	0	23.87	23.84	23.85		1
	25	12	23.99	23.92	23.90		
	25	25	23.99	23.89	23.91		
	50	0	23.99	23.89	23.90		1
16QAM	1	0	24.14	24.17	24.13	≤ 1	1
	1	25	24.03	23.96	24.01		
	1	49	24.01	24.01	24.05		
	25	0	22.83	22.82	22.85	≤ 2	2
	25	12	22.95	22.90	22.91		
	25	25	22.93	22.87	22.91		
	50	0	22.96	22.89	22.94		2
64QAM	1	0	23.24	23.18	23.17	≤ 2	2
	1	25	23.08	22.99	22.98		
	1	49	23.05	23.00	23.04		
	25	0	21.88	21.86	21.87	≤ 3	3
	25	12	22.01	21.95	21.96		
	25	25	22.00	21.92	21.94		
	50	0	21.97	21.90	21.96		3

Table 9.3.3.3 LTE Conducted Power

LTE Band 26 (Cell) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26715 (816.5 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27015 (846.5 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	25.05	25.04	25.03	≤ 1	0
	1	12	25.00	24.90	24.91		
	1	24	25.00	24.90	24.96		
	12	0	23.88	23.84	23.85		1
	12	6	23.99	23.93	23.94		
	12	13	24.02	23.89	23.96		
	25	0	23.99	23.92	23.94		1
16QAM	1	0	24.23	24.19	24.20	≤ 1	1
	1	12	24.14	24.00	24.07		
	1	24	24.14	24.04	24.11		
	12	0	22.87	22.85	22.83	≤ 2	2
	12	6	22.99	22.92	22.97		
	12	13	23.01	22.86	22.97		
	25	0	22.99	22.93	22.93		2
64QAM	1	0	23.24	23.19	23.20	≤ 2	2
	1	12	23.14	23.08	23.08		
	1	24	23.15	23.04	23.14		
	12	0	21.92	21.85	21.88	≤ 3	3
	12	6	22.02	21.96	21.99		
	12	13	22.02	21.93	22.03		
	25	0	22.03	21.93	21.98		3

Table 9.3.3.4 LTE Conducted Power

LTE Band 26 (Cell) Conducted Power– 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26705 (815.5 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27025 (847.5 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	25.04	24.93	24.94	0	0
	1	7	24.98	24.82	24.86		
	1	14	24.93	24.84	24.92		
	8	0	23.87	23.81	23.83	0-1	1
	8	4	24.05	23.95	24.00		
	8	7	23.96	23.87	23.92		
	15	0	24.00	23.91	23.96	0-1	1
16QAM	1	0	24.24	24.04	24.14	0-1	1
	1	7	24.11	24.01	24.06		
	1	14	24.13	24.02	24.08		
	8	0	22.87	22.82	22.85	0-2	2
	8	4	23.06	22.94	23.02		
	8	7	22.97	22.86	22.93		
	15	0	23.02	22.92	22.95	0-2	2
64QAM	1	0	23.20	23.11	23.07	0-2	2
	1	7	23.16	23.00	22.97		
	1	14	23.12	22.98	23.10		
	8	0	21.94	21.85	21.91	0-3	3
	8	4	22.15	21.98	22.07		
	8	7	22.02	21.94	22.01		
	15	0	22.04	21.92	21.98	0-3	3

Table 9.3.3.5 LTE Conducted Power

LTE Band 26 (Cell) Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 26697 (814.7 MHz)	Mid Channel 26865 (831.5 MHz)	High Channel 27033 (848.3 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	25.06	24.95	24.99	0	0
	1	2	25.02	24.91	24.94		
	1	5	25.03	24.91	24.96		
	3	0	24.91	24.82	24.83	0	0
	3	2	25.02	24.89	24.94		
	3	3	24.98	24.86	24.92		
	6	0	24.03	23.92	23.95	0-1	1
16QAM	1	0	24.19	24.12	24.10	0-1	1
	1	2	24.15	24.02	24.12		
	1	5	24.19	24.08	24.10		
	3	0	23.88	23.85	23.82	0-1	1
	3	2	24.02	23.88	23.94		
	3	3	24.01	23.86	23.92		
	6	0	23.17	22.97	23.04	0-2	2
64QAM	1	0	23.22	23.14	23.09	0-2	2
	1	2	23.14	23.05	23.10		
	1	5	23.18	23.10	23.14		
	3	0	23.01	22.96	22.94	0-2	2
	3	2	23.14	23.04	23.11		
	3	3	23.06	23.02	23.02		
	6	0	22.09	21.93	22.01	0-3	3

Table 9.3.3.6 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 5	Maximum	25.5
	Nominal	25.0

Table 9.3.4.1 Nominal and Maximum Output Power Spec

4) LTE Band 5 (Cell)

LTE Band 5 (Cell) Conducted Power– 10 MHz Bandwidth					
Modulation	RB Size	RB Offset	Mid Channel 20525 (836.5 MHz) Conducted Power (dBm)	MPR Allowed Per 3GPP(dB)	MPR (dB)
QPSK	**1**	**0**	24.97	≤ 1	0
	1	25	24.86		
	1	49	24.80		
	25	**0**	24.05		1
	25	12	24.02		
	25	25	23.99		
	50	0	24.02		1
16QAM	1	0	24.04	≤ 1	1
	1	25	24.03		
	1	49	23.90		
	25	0	23.07	≤ 2	2
	25	12	23.03		
	25	25	23.03		
	50	0	23.08		2
64QAM	1	0	23.09	≤ 2	2
	1	25	22.99		
	1	49	22.92		
	25	0	22.08	≤ 3	3
	25	12	22.03		
	25	25	22.02		
	50	0	22.08		3

Table 9.3.4.2 LTE Conducted Power

Note : LTE B5(Cell) can not contain three non-overlapping channels of 10 MHz bandwidth.
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.

LTE Band 5 (Cell) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20425 (826.5 MHz)	Mid Channel 20525 (836.5 MHz)	High Channel 20625 (846.5 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	24.90	24.90	24.83	≤ 1	0
	1	12	24.80	24.82	24.80		
	1	24	24.80	24.81	24.80		
	12	0	24.03	24.05	24.00		1
	12	6	23.94	24.05	23.96		
	12	13	24.01	23.97	23.95		
	25	0	23.98	24.02	23.96		1
16QAM	1	0	24.08	24.04	23.98	≤ 1	1
	1	12	23.92	23.99	23.84		
	1	24	23.96	23.88	23.92		
	12	0	23.02	23.08	22.99	≤ 2	2
	12	6	22.93	23.03	22.95		
	12	13	22.98	22.99	22.93		
	25	0	23.02	23.05	22.94		2
64QAM	1	0	23.09	23.03	23.02	≤ 2	2
	1	12	22.95	22.93	22.84		
	1	24	22.94	22.89	22.91		
	12	0	22.08	22.03	22.05	≤ 3	3
	12	6	21.98	22.10	22.00		
	12	13	22.07	22.05	22.01		
	25	0	22.03	22.07	21.98		3

Table 9.3.4.3 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power– 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20415 (825.5 MHz)	20525 (836.5 MHz)	20635 (847.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	24.89	24.90	24.83	≤ 1	0
	1	7	24.88	24.93	24.87		
	1	14	24.91	24.89	24.86		
	8	0	24.02	24.02	23.99		1
	8	4	23.95	24.00	23.94		
	8	7	23.98	23.98	23.96		
	15	0	23.99	23.99	24.01		1
16QAM	1	0	24.04	24.08	24.00	≤ 1	1
	1	7	24.08	24.02	23.99		
	1	14	24.06	24.09	24.03		
	8	0	23.09	23.07	23.06	≤ 2	2
	8	4	23.04	23.06	23.00		
	8	7	23.03	23.07	23.00		
	15	0	22.98	23.05	22.98		2
64QAM	1	0	23.06	23.08	22.98	≤ 2	2
	1	7	23.06	23.02	22.97		
	1	14	23.06	23.07	23.00		
	8	0	22.01	22.02	22.06	≤ 3	3
	8	4	22.05	22.10	22.00		
	8	7	22.05	22.09	22.06		
	15	0	21.96	22.02	21.97		3

Table 9.3.4.4 LTE Conducted Power

LTE Band 5 (Cell) Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20407 (824.7 MHz)	20525 (836.5 MHz)	20643 (848.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	24.91	24.92	24.96	≤ 1	0
	1	2	24.87	24.87	24.81		
	1	5	24.88	24.85	24.80		
	3	0	24.95	24.96	24.95		0
	3	2	24.95	24.96	24.91		
	3	3	24.91	24.96	24.91		
	6	0	24.04	24.06	24.02		1
16QAM	1	0	24.05	24.09	24.03	≤ 1	1
	1	2	24.06	24.07	23.94		
	1	5	24.02	24.01	23.97		
	3	0	24.01	24.02	23.97		1
	3	2	23.95	23.98	23.91		
	3	3	23.99	23.99	23.91		
	6	0	23.07	23.10	23.06	≤ 2	2
64QAM	1	0	23.02	23.09	23.03	≤ 2	2
	1	2	23.05	23.05	22.96		
	1	5	23.05	23.03	22.95		
	3	0	23.03	23.05	23.07		2
	3	2	23.03	23.03	23.10		
	3	3	23.01	23.10	23.09		
	6	0	22.05	22.05	22.00	≤ 3	3

Table 9.3.4.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 66 (AWS)	Maximum	24.5
	Nominal	24.0

Table 9.3.5.1 Nominal and Maximum Output Power Spec

5) LTE Band 66 (AWS)

LTE Band 66 (AWS) Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132072 (1720.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132572 (1770.0 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	24.33	24.32	24.44	≤ 1	0
	1	50	23.97	23.95	24.11		
	1	99	24.11	24.07	24.23		
	50	0	23.41	23.29	23.42		1
	50	25	23.27	23.20	23.34		
	50	50	23.33	23.27	23.37		
	100	0	23.35	23.23	23.41		1
16QAM	1	0	23.40	23.42	23.49	≤ 1	1
	1	50	23.11	23.14	23.29		
	1	99	23.28	23.25	23.43		
	50	0	22.35	22.26	22.40	≤ 2	2
	50	25	22.27	22.18	22.32		
	50	50	22.42	22.27	22.33		
	100	0	22.33	22.24	22.31		2
64QAM	1	0	22.39	22.42	22.45	≤ 2	2
	1	50	22.06	22.14	22.28		
	1	99	22.25	22.23	22.41		
	50	0	21.33	21.25	21.41	≤ 3	3
	50	25	21.25	21.17	21.31		
	50	50	21.40	21.28	21.31		
	100	0	21.33	21.21	21.31		3

Table 9.3.5.2 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132047 (1717.5 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132597 (1772.5 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	24.23	24.23	24.24	≤ 1	0
	1	36	24.08	24.02	24.04		
	1	74	24.20	24.15	24.16		
	36	0	23.34	23.29	23.33		1
	36	18	23.29	23.21	23.25		
	36	37	23.26	23.28	23.36		
	75	0	23.30	23.25	23.31		1
16QAM	1	0	23.34	23.40	23.41	≤ 1	1
	1	36	23.27	23.22	23.16		
	1	74	23.37	23.34	23.29		
	36	0	22.33	22.28	22.34	≤ 2	2
	36	18	22.26	22.22	22.27		
	36	37	22.25	22.26	22.35		
	75	0	22.31	22.26	22.30		2
64QAM	1	0	22.38	22.33	22.40	≤ 2	2
	1	36	22.25	22.19	22.22		
	1	74	22.37	22.23	22.31		
	36	0	21.32	21.28	21.35	≤ 3	3
	36	18	21.27	21.23	21.29		
	36	37	21.26	21.28	21.37		
	75	0	21.26	21.23	21.29		3

Table 9.3.5.3 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 132022 (1715.0 MHz)	Mid Channel 132322 (1745.0 MHz)	High Channel 132622 (1775.0 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	24.31	24.29	24.30	≤ 1	0
	1	25	24.10	24.08	24.08		
	1	49	24.19	24.16	24.19		
	25	0	23.35	23.29	23.32		1
	25	12	23.32	23.27	23.29		
	25	25	23.24	23.27	23.35		
	50	0	23.33	23.28	23.32		1
16QAM	1	0	23.41	23.46	23.48	≤ 1	1
	1	25	23.28	23.25	23.22		
	1	49	23.38	23.36	23.38		
	25	0	22.36	22.29	22.35	≤ 2	2
	25	12	22.35	22.28	22.31		
	25	25	22.29	22.30	22.38		
	50	0	22.30	22.25	22.34		2
64QAM	1	0	22.49	22.41	22.48	≤ 2	2
	1	25	22.28	22.22	22.18		
	1	49	22.34	22.29	22.35		
	25	0	21.39	21.30	21.35	≤ 3	3
	25	12	21.34	21.27	21.30		
	25	25	21.26	21.26	21.33		
	50	0	21.33	21.25	21.31		3

Table 9.3.5.4 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131997 (1712.5 MHz)	132322 (1745.0 MHz)	132647 (1777.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	24.22	24.17	24.16	≤ 1	0
	1	12	24.06	24.02	24.00		
	1	24	24.09	24.06	24.07		
	12	0	23.32	23.28	23.31		1
	12	6	23.27	23.23	23.19		
	12	13	23.24	23.24	23.25		
	25	0	23.26	23.25	23.26		1
16QAM	1	0	23.37	23.29	23.32	≤ 1	1
	1	12	23.20	23.21	23.17		
	1	24	23.21	23.25	23.26		
	12	0	22.34	22.32	22.31	≤ 2	2
	12	6	22.29	22.23	22.23		
	12	13	22.27	22.26	22.28		
	25	0	22.30	22.26	22.27		2
64QAM	1	0	22.40	22.33	22.35	≤ 2	2
	1	12	22.24	22.19	22.17		
	1	24	22.25	22.25	22.26		
	12	0	21.36	21.31	21.36	≤ 3	3
	12	6	21.37	21.23	21.25		
	12	13	21.28	21.26	21.29		
	25	0	21.27	21.23	21.28		3

Table 9.3.5.5 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131987 (1711.5 MHz)	132322 (1745.0 MHz)	132657 (1778.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	24.20	24.14	24.17	≤ 1	0
	1	7	24.20	24.10	24.13		
	1	14	24.19	24.14	24.18		
	8	0	23.30	23.23	23.24		1
	8	4	23.25	23.21	23.21		
	8	7	23.24	23.20	23.24		
	15	0	23.25	23.21	23.25		1
16QAM	1	0	23.33	23.27	23.36	≤ 1	1
	1	7	23.34	23.24	23.28		
	1	14	23.33	23.30	23.30		
	8	0	22.42	22.34	22.37	≤ 2	2
	8	4	22.35	22.30	22.32		
	8	7	22.40	22.34	22.36		
	15	0	22.32	22.29	22.30		2
64QAM	1	0	22.38	22.30	22.28	≤ 2	2
	1	7	22.36	22.28	22.25		
	1	14	22.37	22.32	22.29		
	8	0	21.38	21.30	21.34	≤ 3	3
	8	4	21.32	21.28	21.31		
	8	7	21.35	21.29	21.34		
	15	0	21.29	21.21	21.26		3

Table 9.3.5.6 LTE Conducted Power

LTE Band 66 (AWS) Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			131979 (1710.7 MHz)	132322 (1745.0 MHz)	132665 (1779.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	24.27	24.27	24.20	≤ 1	0
	1	2	24.15	24.08	24.10		
	1	5	24.14	24.11	24.13		
	3	0	24.33	24.24	24.25		0
	3	2	24.28	24.21	24.23		
	3	3	24.27	24.22	24.26		
	6	0	23.32	23.26	23.27		1
16QAM	1	0	23.39	23.44	23.37	≤ 1	1
	1	2	23.30	23.27	23.25		
	1	5	23.34	23.31	23.28		
	3	0	23.35	23.32	23.26		1
	3	2	23.32	23.25	23.24		
	3	3	23.32	23.27	23.21		
	6	0	22.45	22.41	22.38	≤ 2	2
64QAM	1	0	22.42	22.44	22.37	≤ 2	2
	1	2	22.33	22.24	22.24		
	1	5	22.33	22.28	22.29		
	3	0	22.41	22.42	22.43		2
	3	2	22.44	22.35	22.36		
	3	3	22.33	22.41	22.36		
	6	0	21.34	21.26	21.31	≤ 3	3

Table 9.3.5.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 2(PCS)	Maximum	24.5
	Nominal	24.0

Table 9.3.6.1 Nominal and Maximum Output Power Spec

6) LTE Band 2 (PCS)

LTE Band 2 (PCS) Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18700 (1860.0 MHz)	18900 (1880.0 MHz)	19100 (1900.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.84	23.84	23.80	≤ 1	0
	1	**50**	**23.85**	23.83	23.81		
	1	99	23.80	23.81	23.80		
	50	0	22.90	22.83	22.88		1
	50	**25**	**22.97**	22.96	22.80		
	50	50	22.89	22.89	22.81		
	100	0	22.89	22.88	22.80		1
16QAM	1	0	23.02	23.00	22.87	≤ 1	1
	1	50	22.99	22.95	22.88		
	1	99	22.81	22.85	22.80		
	50	0	21.89	21.87	21.87	≤ 2	2
	50	25	21.89	21.83	21.81		
	50	50	21.88	21.81	21.80		
	100	0	21.86	21.80	21.80		2
64QAM	1	0	21.96	21.95	21.80	≤ 2	2
	1	50	21.96	21.89	21.84		
	1	99	21.82	21.87	21.80		
	50	0	20.86	20.85	20.81	≤ 3	3
	50	25	20.87	20.86	20.80		
	50	50	20.85	20.84	20.80		
	100	0	20.85	20.80	20.80		3

Table 9.3.6.2 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18675 (1857.5 MHz)	18900 (1880.0 MHz)	19125 (1902.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.80	23.81	23.80	≤ 1	0
	1	36	23.82	23.81	23.80		
	1	74	23.80	23.80	23.80		
	36	0	22.88	22.94	22.92		1
	36	18	22.87	22.92	22.85		
	36	37	22.86	22.91	22.82		
	75	0	22.88	22.90	22.82		1
16QAM	1	0	22.95	22.96	22.94	≤ 1	1
	1	36	22.87	22.89	22.88		
	1	74	22.85	22.82	22.80		
	36	0	21.88	21.88	21.91	≤ 2	2
	36	18	21.88	21.88	21.84		
	36	37	21.84	21.82	21.81		
	75	0	21.91	21.87	21.81		2
64QAM	1	0	21.92	21.95	21.93	≤ 2	2
	1	36	21.85	21.87	21.86		
	1	74	21.88	21.83	21.81		
	36	0	20.87	20.90	20.90	≤ 3	3
	36	18	20.87	20.89	20.85		
	36	37	20.85	20.84	20.82		
	75	0	20.86	20.84	20.80		3

Table 9.3.6.3 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18650 (1855.0 MHz)	18900 (1880.0 MHz)	19150 (1905.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.82	23.82	23.80	≤ 1	0
	1	25	23.84	23.81	23.82		
	1	49	23.81	23.82	23.80		
	25	0	22.99	23.04	22.88		1
	25	12	22.95	23.04	22.80		
	25	25	22.95	23.00	22.80		
	50	0	22.97	23.01	22.84		1
16QAM	1	0	22.97	23.00	22.92	≤ 1	1
	1	25	22.98	22.97	22.82		
	1	49	22.95	22.98	22.85		
	25	0	21.99	22.02	21.90	≤ 2	2
	25	12	21.97	22.02	21.81		
	25	25	21.98	21.97	21.80		
	50	0	21.97	21.99	21.85		2
64QAM	1	0	21.97	21.96	21.90	≤ 2	2
	1	25	21.97	21.97	21.81		
	1	49	21.93	21.91	21.85		
	25	0	20.98	21.00	20.85	≤ 3.	3
	25	12	20.96	21.03	20.80		
	25	25	20.95	20.95	20.80		
	50	0	20.93	20.98	20.81		3

Table 9.3.6.4 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18625 (1852.5 MHz)	18900 (1880.0 MHz)	19175 (1907.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.81	23.80	23.80	≤ 1	0
	1	12	23.80	23.84	23.80		
	1	24	23.80	23.81	23.80		
	12	0	22.97	23.01	22.81		1
	12	6	22.99	23.04	22.81		
	12	13	22.94	22.98	22.80		
	25	0	22.94	23.01	22.80		1
16QAM	1	0	22.92	22.90	22.94	≤ 1	1
	1	12	22.98	22.96	22.81		
	1	24	22.91	22.94	22.80		
	12	0	21.95	21.97	21.84	≤ 2	2
	12	6	21.99	22.00	21.84		
	12	13	21.93	21.97	21.80		
	25	0	21.96	21.99	21.80		2
64QAM	1	0	21.96	21.90	21.86	≤ 2	2
	1	12	21.92	22.03	21.84		
	1	24	21.90	21.99	21.91		
	12	0	21.00	21.02	20.82	≤ 3	3
	12	6	21.01	21.04	20.82		
	12	13	20.96	20.98	20.81		
	25	0	20.95	20.98	20.81		3

Table 9.3.6.5 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 3 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18615 (1851.5 MHz)	18900 (1880.0 MHz)	19185 (1908.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.80	23.82	23.82	≤ 1	0
	1	7	23.82	23.84	23.82		
	1	14	23.81	23.83	23.80		
	8	0	22.96	22.99	22.80		1
	8	4	22.95	22.98	22.80		
	8	7	22.92	22.94	22.81		
	15	0	22.94	22.98	22.80		1
16QAM	1	0	22.91	22.94	22.99	≤ 1	1
	1	7	22.95	23.00	22.89		
	1	14	22.94	22.95	22.90		
	8	0	22.04	22.02	21.83	≤ 2	2
	8	4	22.03	22.05	21.85		
	8	7	21.99	22.00	21.80		
	15	0	21.96	21.97	21.80		2
64QAM	1	0	21.93	22.01	21.93	≤ 2	2
	1	7	21.92	22.02	21.81		
	1	14	21.98	21.98	21.87		
	8	0	21.04	21.03	20.82	≤ 3	3
	8	4	21.02	21.03	20.84		
	8	7	21.00	20.99	20.81		
	15	0	20.94	20.96	20.80		3

Table 9.3.6.6 LTE Conducted Power

LTE Band 2 (PCS) Conducted Power– 1.4 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			18607 (1850.7 MHz)	18900 (1880.0 MHz)	19193 (1909.3 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	23.80	23.84	23.80	≤ 1	0
	1	2	23.80	23.84	23.80		
	1	5	23.80	23.82	23.82		
	3	0	23.81	23.81	23.80		0
	3	2	23.81	23.83	23.80		
	3	3	23.80	23.84	23.80		
	6	0	22.89	22.94	22.80		1
16QAM	1	0	22.99	22.97	22.98	≤ 1	1
	1	2	22.98	23.02	22.87		
	1	5	22.94	23.01	22.86		
	3	0	22.89	22.90	22.83		1
	3	2	22.90	22.90	22.82		
	3	3	22.86	22.87	22.81		
	6	0	22.02	22.01	21.88	≤ 2	2
64QAM	1	0	21.95	22.00	21.94	≤ 2	2
	1	2	21.90	21.95	21.86		
	1	5	21.90	21.98	21.82		
	3	0	21.91	22.00	21.91		2
	3	2	21.94	22.00	21.88		
	3	3	21.88	21.96	21.86		
	6	0	20.90	20.91	20.82	≤ 3	3

Table 9.3.6.7 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 7	Maximum	25.5
	Nominal	25.0

Table 9.3.7.1 Nominal and Maximum Output Power Spec

7) LTE Band 7

LTE Band 7 Conducted Power– 20 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20850 (2510.0 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21350 (2560.0 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	**1**	**0**	25.01	24.99	25.18	≤ 1	0
	1	50	24.86	24.85	24.95		
	1	99	24.84	24.84	24.94		
	50	**0**	24.03	24.02	24.19		1
	50	25	23.86	23.85	24.17		
	50	50	23.90	24.01	24.18		
	100	0	24.01	23.99	24.18		1
16QAM	1	0	24.16	24.13	24.35	≤ 1	1
	1	50	23.91	23.83	24.03		
	1	99	23.90	23.82	24.02		
	50	0	22.95	22.89	23.14	≤ 2	2
	50	25	22.80	22.80	23.12		
	50	50	22.85	22.93	23.14		
	100	0	22.82	22.85	23.11		2
64QAM	1	0	23.12	23.11	23.25	≤ 2	2
	1	50	22.85	22.88	23.11		
	1	99	22.84	22.84	23.01		
	50	0	21.93	21.87	22.11	≤ 3	3
	50	25	21.81	21.80	22.12		
	50	50	21.86	21.94	22.13		
	100	0	21.82	21.86	22.12		3

Table 9.3.7.2 LTE Conducted Power

LTE Band 7 Conducted Power– 15 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel 20825 (2507.5 MHz)	Mid Channel 21100 (2535.0 MHz)	High Channel 21375 (2562.5 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)				
QPSK	1	0	25.11	25.09	25.10	≤ 1	0
	1	36	25.02	24.97	24.99		
	1	74	25.01	25.04	25.08		
	36	0	24.17	24.15	24.22		1
	36	18	24.13	24.11	24.21		
	36	37	24.16	24.19	24.24		
	75	0	24.16	24.15	24.22		1
16QAM	1	0	24.24	24.25	24.25	≤ 1	1
	1	36	24.18	24.17	24.16		
	1	74	24.20	24.22	24.24		
	36	0	23.10	23.11	23.15	≤ 2	2
	36	18	23.06	23.08	23.14		
	36	37	23.09	23.15	23.16		
	75	0	23.07	23.12	23.18		2
64QAM	1	0	23.22	23.20	23.24	≤ 2	2
	1	36	23.14	23.13	23.10		
	1	74	23.16	23.17	23.19		
	36	0	22.13	22.12	22.18	≤ 3	3
	36	18	22.08	22.08	22.16		
	36	37	22.10	22.16	22.19		
	75	0	22.08	22.10	22.17		3

Table 9.3.7.3 LTE Conducted Power

LTE Band 7 Conducted Power– 10 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20800 (2505.0 MHz)	21100 (2535.0 MHz)	21400 (2565.0 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	25.11	25.17	25.17	≤ 1	0
	1	25	25.06	25.00	25.04		
	1	49	25.00	25.04	25.08		
	25	0	24.19	24.17	24.21		1
	25	12	24.13	24.14	24.20		
	25	25	24.22	24.24	24.25		
	50	0	24.19	24.19	24.23		1
16QAM	1	0	24.25	24.35	24.36	≤ 1	1
	1	25	24.26	24.20	24.24		
	1	49	24.20	24.24	24.26		
	25	0	23.14	23.14	23.15	≤ 2	2
	25	12	23.10	23.10	23.17		
	25	25	23.19	23.20	23.23		
	50	0	23.15	23.15	23.19		2
64QAM	1	0	23.28	23.36	23.33	≤ 2	2
	1	25	23.15	23.17	23.18		
	1	49	23.14	23.18	23.16		
	25	0	22.13	22.15	22.14	≤ 3	3
	25	12	22.09	22.10	22.16		
	25	25	22.19	22.19	22.21		
	50	0	22.14	22.16	22.19		3

Table 9.3.7.4 LTE Conducted Power

LTE Band 7 Conducted Power– 5 MHz Bandwidth							
Modulation	RB Size	RB Offset	Low Channel	Mid Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			20775 (2502.5 MHz)	21100 (2535.0 MHz)	21425 (2567.5 MHz)		
			Conducted Power (dBm)				
QPSK	1	0	25.06	25.07	25.13	≤ 1	0
	1	12	25.00	25.03	25.01		
	1	24	25.01	24.96	24.97		
	12	0	24.16	24.13	24.21		1
	12	6	24.09	24.05	24.14		
	12	13	24.14	24.13	24.14		
	25	0	24.10	24.09	24.15		1
16QAM	1	0	24.23	24.19	24.29	≤ 1	1
	1	12	24.18	24.16	24.15		
	1	24	24.18	24.08	24.16		
	12	0	23.15	23.12	23.18	≤ 2	2
	12	6	23.08	23.04	23.09		
	12	13	23.13	23.10	23.12		
	25	0	23.11	23.11	23.13		2
64QAM	1	0	23.18	23.25	23.29	≤ 2	2
	1	12	23.14	23.11	23.13		
	1	24	23.12	23.13	23.15		
	12	0	22.20	22.17	22.23	≤ 3	3
	12	6	22.12	22.04	22.15		
	12	13	22.16	22.13	22.17		
	25	0	22.13	22.08	22.15		3

Table 9.3.7.5 LTE Conducted Power

Band & Mode		Modulated Average[dBm]
LTE Band 41	Maximum	24.2
	Nominal	23.7

Table 9.3.8.1 Nominal and Maximum Output Power Spec

8) LTE Band 41

LTE Band 41 Conducted Power– 20 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39750 (2506.0 MHz)	Low-Mid Channel 40185 (2549.5 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41055 (2636.5 MHz)	High Channel 41490 (2680.0 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)						
QPSK	1	0	23.98	24.03	23.96	23.99	24.00	≤ 1	0
	1	50	24.00	24.03	24.00	24.01	24.03		
	1	**99**	24.04	24.06	24.08	24.09	24.19		
	50	0	23.02	22.96	23.04	22.96	22.98		1
	50	25	23.03	23.01	22.98	22.97	23.08		
	50	**50**	23.04	23.02	23.05	23.01	23.09		
	100	0	23.03	23.03	23.03	23.03	23.04		1
16QAM	1	0	23.01	23.01	23.09	22.98	23.17	≤ 1	1
	1	50	22.99	23.01	23.08	23.04	23.13		
	1	99	23.18	23.04	23.19	23.16	23.18		
	50	0	22.00	22.05	22.06	22.02	22.07	≤ 2	2
	50	25	21.97	21.98	22.12	22.04	22.12		
	50	50	22.01	22.06	22.16	22.05	22.19		
	100	0	21.97	22.02	22.07	22.01	22.10		2
64QAM	1	0	21.96	21.99	22.02	21.98	22.11	≤ 2	2
	1	50	22.04	22.02	22.08	22.03	22.08		
	1	99	22.15	22.00	22.18	22.11	22.19		
	50	0	20.97	21.02	21.04	20.95	21.07	≤ 3	3
	50	25	21.01	20.99	21.08	21.04	21.12		
	50	50	21.02	21.03	21.12	21.05	21.18		
	100	0	21.00	21.04	21.12	21.01	21.09		3

Table 9.3.8.2 LTE Conducted Power

LTE Band 41 Conducted Power– 15 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel 39725 (2503.5 MHz)	Low-Mid Channel 40173 (2548.3 MHz)	Mid Channel 40620 (2593.0 MHz)	Mid-High Channel 41068 (2637.8 MHz)	High Channel 41515 (2682.5 MHz)	MPR Allowed Per 3GPP(dB)	MPR (dB)
			Conducted Power (dBm)						
QPSK	1	0	24.11	24.05	24.08	23.99	23.99	≤ 1	0
	1	36	23.96	24.05	23.99	24.03	23.95		
	1	74	23.95	23.96	23.98	24.05	24.04		
	36	0	23.08	22.96	23.07	23.02	23.03		1
	36	18	23.04	22.97	23.02	22.96	22.98		
	36	37	23.00	22.97	22.96	23.01	23.04		
	75	0	23.02	23.01	22.98	23.02	22.99		1
16QAM	1	0	23.19	22.99	23.16	23.04	23.14	≤ 1	1
	1	36	23.14	23.03	23.13	23.11	22.99		
	1	74	23.07	22.96	23.06	22.96	23.03		
	36	0	22.08	22.02	22.08	22.05	22.04	≤ 2	2
	36	18	22.05	21.97	22.05	22.03	22.00		
	36	37	22.02	22.05	21.95	22.05	22.02		
	75	0	22.05	22.02	22.05	22.02	21.96		2
64QAM	1	0	22.04	22.04	22.11	22.07	22.11	≤ 2	2
	1	36	22.08	22.05	22.06	22.04	22.00		
	1	74	22.06	21.97	22.10	21.98	21.97		
	36	0	21.13	20.96	21.09	21.05	21.00	≤ 3	3
	36	18	21.10	20.96	21.05	21.05	20.98		
	36	37	21.04	21.05	20.97	21.02	21.01		
	75	0	21.04	21.02	21.07	21.02	20.99		3

Table 9.3.8.3 LTE Conducted Power

LTE Band 41 Conducted Power– 10 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			39700 (2501.0 MHz)	40160 (2547.0 MHz)	40620 (2593.0 MHz)	41080 (2639.0 MHz)	41540 (2685.0 MHz)		
			Conducted Power (dBm)						
QPSK	1	0	24.04	24.04	24.04	24.05	23.95	≤ 1	0
	1	25	24.04	24.05	23.95	24.05	23.95		
	1	49	24.03	24.02	23.99	24.03	24.01		
	25	0	23.07	22.97	23.03	23.05	22.99		1
	25	12	23.01	22.96	23.01	22.99	22.95		
	25	25	22.99	23.01	22.96	23.04	23.02		
	50	0	23.00	22.96	23.02	22.99	22.99		1
16QAM	1	0	23.12	23.02	23.19	23.13	23.11	≤ 1	1
	1	25	23.14	23.06	23.14	23.09	22.97		
	1	49	23.09	23.11	23.08	23.09	22.98		
	25	0	22.12	21.98	22.12	22.04	21.98	≤ 2	2
	25	12	22.11	21.97	22.11	21.98	22.01		
	25	25	22.10	22.00	22.08	22.03	22.02		
	50	0	22.12	22.02	22.08	22.04	22.04		2
64QAM	1	0	22.15	22.02	22.17	22.03	22.06	≤ 2	2
	1	25	22.11	22.03	22.12	22.02	21.95		
	1	49	22.04	21.98	22.02	22.03	21.96		
	25	0	21.18	21.04	21.14	21.09	21.00	≤ 3	3
	25	12	21.17	20.99	21.12	21.01	21.02		
	25	25	21.09	21.08	21.10	21.00	20.95		
	50	0	21.09	20.97	21.09	21.00	20.96		3

Table 9.3.8.4 LTE Conducted Power

LTE Band 41 Conducted Power– 5 MHz Bandwidth									
Modulation	RB Size	RB Offset	Low Channel	Low-Mid Channel	Mid Channel	Mid-High Channel	High Channel	MPR Allowed Per 3GPP(dB)	MPR (dB)
			39675 (2498.5 MHz)	40148 (2545.8 MHz)	40620 (2593.0 MHz)	41093 (2640.3 MHz)	41565 (2687.5 MHz)		
			Conducted Power (dBm)						
QPSK	1	0	24.00	24.01	23.96	24.08	24.02	≤ 1	0
	1	12	24.03	24.02	24.02	24.01	23.99		
	1	24	24.02	24.05	23.99	24.04	23.95		
	12	0	22.97	23.02	22.98	22.97	23.04		1
	12	6	23.03	22.96	22.99	23.03	23.01		
	12	13	23.00	23.02	23.02	22.97	22.99		
	25	0	23.00	23.01	22.95	23.03	22.96		1
16QAM	1	0	23.16	23.05	23.12	23.11	23.00	≤ 1	1
	1	12	23.20	23.07	23.20	23.17	23.04		
	1	24	23.08	22.96	23.05	23.05	23.02		
	12	0	22.14	22.02	22.09	21.99	21.95	≤ 2	2
	12	6	22.14	21.96	22.10	21.97	21.95		
	12	13	22.10	22.04	22.07	22.02	22.00		
	25	0	22.13	22.02	22.10	22.04	22.00		2
64QAM	1	0	22.14	22.03	22.09	22.10	22.00	≤ 2	2
	1	12	22.20	22.05	22.12	21.99	22.03		
	1	24	22.09	22.05	22.03	22.02	22.03		
	12	0	21.09	21.02	21.12	20.99	20.99	≤ 3	3
	12	6	21.10	21.01	21.10	21.03	21.01		
	12	13	21.11	21.04	21.05	21.02	21.02		
	25	0	21.11	21.02	21.07	20.96	20.96		3

Table 9.3.8.5 LTE Conducted Power

9.4 WLAN Nominal and Maximum Output Power Spec and Conducted Powers

Band (GHz)	Mode	Ch	Modulated Average[dBm]					
			Ant.1		Ant.2		MIMO(CDD/SDM)	
			Maximum	Nominal	Maximum	Nominal	Maximum	Nominal
2.4	802.11b	1~2	18.5	17.5	18.5	17.5	-	-
		3~9	18.5	17.5	18.5	17.5	-	-
		10~11	18.5	17.5	18.5	17.5	-	-
		12	3.0	2.0	3.0	2.0	-	-
		13	3.0	2.0	3.0	2.0	-	-
	802.11g	1~2	17.0	16.0	17.0	16.0	20.0	19.0
		3~9	18.0	17.0	18.0	17.0	21.0	20.0
		10~11	18.0	17.0	18.0	17.0	21.0	20.0
		12	3.0	2.0	3.0	2.0	6.0	5.0
		13	3.0	2.0	3.0	2.0	6.0	5.0
	802.11n	1~2	16.0	15.0	16.0	15.0	19.0	18.0
		3~9	16.0	15.0	16.0	15.0	19.0	18.0
		10~11	16.0	15.0	16.0	15.0	19.0	18.0
		12	3.0	2.0	3.0	2.0	6.0	5.0
		13	3.0	2.0	3.0	2.0	6.0	5.0
	802.11ac	1~2	16.0	15.0	16.0	15.0	19.0	18.0
		3~9	16.0	15.0	16.0	15.0	19.0	18.0
		10~11	16.0	15.0	16.0	15.0	19.0	18.0
		12	3.0	2.0	3.0	2.0	6.0	5.0
		13	3.0	2.0	3.0	2.0	6.0	5.0

Table 9.4.1 Nominal and Maximum Output Power Spec

Mode	Freq. (MHz)	Channel	IEEE 802.11 (2.4 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11b	**2412**	**1**	17.50	17.73	-	-
	2437	**6**	17.30	17.65	-	-
	2462	**11**	17.12	17.86	-	-
	2467	12	1.86	2.21	-	-
	2472	13	1.92	2.33	-	-
802.11g	2412	1	16.02	16.44	19.25	-
	2437	**6**	16.75	17.34	20.07	-
	2462	**11**	16.59	17.70	20.19	-
	2467	12	2.17	2.24	5.22	-
	2472	13	1.86	2.23	5.06	-
802.11n (HT-20)	2412	1	14.95	15.18	18.08	18.28
	2437	6	14.70	14.94	17.83	17.78
	2462	11	14.55	15.25	17.92	17.91
	2467	12	1.79	1.87	4.84	4.90
	2472	13	1.84	1.82	4.84	4.84
802.11ac (VHT-20)	2412	1	14.90	15.27	18.10	18.07
	2437	6	14.75	14.89	17.83	17.84
	2462	11	14.54	15.21	17.90	17.97
	2467	12	1.84	1.93	4.90	4.92
	2472	13	1.86	1.91	4.90	4.81

Table 9.4.2 IEEE 802.11 Average RF Power

Band (GHz)	Mode	Ch	Modulated Average[dBm] Ant.1	
			Maximum	Nominal
2.4	802.11b	1~2	15.5	14.5
		3~9	15.5	14.5
		10~11	15.5	14.5
		12	3.0	2.0
		13	3.0	2.0
	802.11g	1~2	15.5	14.5
		3~9	15.5	14.5
		10~11	15.5	14.5
		12	3.0	2.0
		13	3.0	2.0
	802.11n	1~2	15.5	14.5
		3~9	15.5	14.5
		10~11	15.5	14.5
		12	3.0	2.0
		13	3.0	2.0
	802.11ac	1~2	15.5	14.5
		3~9	15.5	14.5
		10~11	15.5	14.5
		12	3.0	2.0
		13	3.0	2.0

Table 9.4.3 Nominal and Maximum Output Power Spec for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Mode	Freq. (MHz)	Channel	IEEE 802.11 (2.4 GHz) Conducted Power[dBm] Ant.1
802.11b	**2412**	**1**	15.13
	2437	6	14.64
	2462	11	14.57
	2467	12	1.85
	2472	13	1.90
802.11g	2412	1	14.19
	2437	6	14.58
	2462	11	14.42
	2467	12	2.10
	2472	13	1.84
802.11n (HT-20)	2412	1	14.67
	2437	6	14.48
	2462	11	14.35
	2467	12	1.72
	2472	13	1.81
802.11ac (VHT-20)	2412	1	14.65
	2437	6	14.40
	2462	11	14.23
	2467	12	1.81
	2472	13	1.83

Table 9.4.4 IEEE 802.11 Average RF Power for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Band (GHz)	Mode	Ch	Modulated Average[dBm]					
			Ant.1		Ant.2		MIMO(CDD/SDM)	
			Maximum	Nominal	Maximum	Nominal	Maximum	Nominal
5 (UNII)	802.11a	36, 40	16.5	15.5	16.5	15.5	19.5	18.5
		44-48						
		52, 56						
		60, 64						
		100						
		104-140						
		144						
		149-153						
		157, 161, 165						
	802.11n/ac (20MHz)	36, 40	16.0	15.0	16.0	15.0	19.0	18.0
		44-48						
		52, 56						
		60, 64						
		100						
		104-140						
		144						
		149-153						
		157, 161, 165						
	802.11n/ac (40MHz)	38	16.0	15.0	16.0	15.0	19.0	18.0
		46						
		54						
		62						
		102						
		110						
		118						
		126						
		134						
		142						
		151						
		159						
	802.11ac (80MHz)	42	14.5	13.5	14.5	13.5	17.5	16.5
		58						
		106						
		122						
		138						
		155						

Table 9.4.5 Nominal and Maximum Output Power Spec

Mode	Freq. (MHz)	Channel	IEEE 802.11a (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11a	5180	36	16.17	15.87	19.03	-
	5200	40	16.22	16.04	19.14	-
	5220	**44**	16.45	16.17	19.32	-
	5240	48	16.24	15.94	19.10	-
	5260	**52**	16.44	16.01	19.24	-
	5280	56	16.20	15.96	19.09	-
	5300	60	16.15	15.78	18.98	-
	5320	64	16.35	15.73	19.06	-
	5500	100	16.40	16.05	19.24	-
	5600	120	16.30	15.79	19.06	-
	5660	**132**	16.41	16.12	19.28	-
	5720	144	16.31	16.09	19.21	-
	5745	149	16.33	15.93	19.14	-
	5785	**157**	16.45	16.27	19.37	-
	5825	**165**	16.44	16.12	19.29	-

Table 9.4.6 IEEE 802.11a Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11n HT20 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11n (HT-20)	5180	36	15.65	15.11	18.40	18.42
	5200	40	15.85	15.31	18.60	18.62
	5220	44	15.59	15.51	18.56	18.66
	5240	48	15.67	15.19	18.45	18.56
	5260	52	15.64	15.37	18.52	18.46
	5280	56	15.75	15.24	18.51	18.56
	5300	60	15.71	15.12	18.44	18.33
	5320	64	15.49	15.01	18.27	18.36
	5500	100	15.56	15.21	18.40	18.64
	5600	120	15.71	15.44	18.59	18.50
	5660	132	15.65	15.23	18.46	18.71
	5720	144	15.79	15.53	18.67	18.70
	5745	149	15.77	15.38	18.59	18.61
	5785	157	15.95	15.56	18.77	18.84
	5825	165	15.97	15.60	18.80	18.81

Table 9.4.7 IEEE 802.11n HT20 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT20 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11ac (VHT-20)	5180	36	15.71	15.08	18.42	18.53
	5200	40	15.68	15.11	18.41	18.62
	5220	44	15.67	15.51	18.60	18.63
	5240	48	15.76	15.15	18.48	18.61
	5260	52	15.85	15.40	18.64	18.58
	5280	56	15.44	15.20	18.33	18.48
	5300	60	15.72	15.15	18.45	18.39
	5320	64	15.77	15.14	18.48	18.47
	5500	100	15.97	15.60	18.80	18.64
	5600	120	15.89	15.17	18.56	18.55
	5660	132	15.86	15.42	18.66	18.55
	5720	144	15.74	15.64	18.70	18.61
	5745	149	15.88	15.37	18.64	18.65
	5785	157	15.97	15.62	18.81	18.77
	5825	165	16.00	15.69	18.86	18.84

Table 9.4.8 IEEE 802.11ac VHT20 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11n HT40 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11n (HT-40)	5190	38	15.53	14.78	18.18	18.17
	5230	46	15.29	14.95	18.13	18.41
	5270	54	15.22	15.01	18.13	18.20
	5310	62	15.14	14.72	17.95	18.06
	5510	102	15.31	15.18	18.26	18.29
	5590	118	15.52	14.71	18.14	18.22
	5670	134	15.33	14.88	18.12	18.30
	5710	142	15.37	15.09	18.24	18.38
	5755	151	15.45	15.06	18.27	18.23
	5795	159	15.74	15.32	18.55	18.55

Table 9.4.9 IEEE 802.11n HT40 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT40 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11ac (VHT-40)	5190	38	15.84	15.42	18.65	18.63
	5230	46	15.78	15.49	18.65	18.80
	5270	54	15.82	15.47	18.66	18.52
	5310	62	15.71	15.21	18.48	18.55
	5510	102	15.83	15.58	18.72	18.60
	5590	118	15.91	15.24	18.60	18.56
	5670	134	15.98	15.46	18.74	18.71
	5710	142	15.94	15.68	18.82	18.83
	5755	151	15.93	15.57	18.76	18.75
	5795	159	16.00	15.80	18.91	18.83

Table 9.4.10 IEEE 802.11ac VHT40 Average RF Power

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT80 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11ac (VHT-80)	5210	42	13.78	13.26	16.54	16.47
	5290	58	13.73	13.19	16.48	16.18
	5530	106	13.92	13.15	16.56	16.55
	5610	122	13.81	13.21	16.53	16.49
	5690	138	13.70	13.20	16.47	16.37
	5775	155	13.58	13.08	16.35	16.34

Table 9.4.11 IEEE 802.11ac VHT80 Average RF Power

Band (GHz)	Mode	Ch	Modulated Average[dBm]					
			Ant.1		Ant.2		MIMO(CDD/SDM)	
			Maximum	Nominal	Maximum	Nominal	Maximum	Nominal
5 (UNII)	802.11a	36 ~ 165	N/A	N/A	16.0	15.0	N/A	N/A
	802.11n/ac (20MHz)	36 ~ 165			16.0	15.0		
	802.11n/ac (40MHz)	38 ~ 159			16.0	15.0		
	802.11ac (80MHz)	42 ~ 155			14.5	13.5		

Table 9.4.12 Nominal and Maximum Output Power Spec for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Mode	Freq. (MHz)	Channel	IEEE 802.11a (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11a	5180	36	N/A	14.88	N/A	N/A
	5200	40		15.02		
	5220	44		15.08		
	5240	48		14.97		
	5260	52		15.02		
	5280	56		14.99		
	5300	60		14.83		
	5320	64		14.78		
	5500	100		14.95		
	5600	120		14.71		
	5660	132		15.10		
	5720	144		15.04		
	5745	149		15.35		
	5785	157		15.43		
	5825	165		15.54		

Table 9.4.13 IEEE 802.11a Average RF Power for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Mode	Freq. (MHz)	Channel	IEEE 802.11n HT20 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11n (HT-20)	5180	36	N/A	14.77	N/A	N/A
	5200	40		14.88		
	5220	44		14.96		
	5240	48		14.78		
	5260	52		14.86		
	5280	56		14.75		
	5300	60		14.72		
	5320	64		14.68		
	5500	100		14.63		
	5600	120		14.76		
	5660	132		14.73		
	5720	144		15.29		
	5745	149		15.19		
	5785	157		15.32		
	5825	165		15.40		

Table 9.4.14 IEEE 802.11n HT20 Average RF Power for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT20 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11ac (VHT-20)	5180	36	N/A	14.75	N/A	N/A
	5200	40		14.85		
	5220	44		14.98		
	5240	48		14.88		
	5260	52		14.89		
	5280	56		14.78		
	5300	60		14.75		
	5320	64		14.91		
	5500	100		14.98		
	5600	120		14.65		
	5660	132		14.89		
	5720	144		15.37		
	5745	149		15.34		
	5785	157		15.43		
	5825	165		15.48		

Table 9.4.15 IEEE 802.11ac VHT20 Average RF Power for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Mode	Freq. (MHz)	Channel	IEEE 802.11n HT40 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11n (HT-40)	5190	38	N/A	14.75	N/A	N/A
	5230	**46**		**14.93**		
	5270	**54**		**15.01**		
	5310	62		14.71		
	5510	102		14.74		
	5590	118		14.62		
	5670	134		14.84		
	5710	**142**		**14.90**		
	5755	151		15.05		
	5795	**159**		**15.31**		

Table 9.4.16 IEEE 802.11n HT40 Average RF Power for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT40 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11ac (VHT-40)	5190	38	N/A	14.92	N/A	N/A
	5230	46		14.94		
	5270	54		14.92		
	5310	62		14.88		
	5510	102		14.94		
	5590	118		14.56		
	5670	134		14.90		
	5710	142		15.28		
	5755	151		15.36		
	5795	159		15.56		

Table 9.4.17 IEEE 802.11ac VHT40 Average RF Power for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Mode	Freq. (MHz)	Channel	IEEE 802.11ac VHT80 (5 GHz) Conducted Power[dBm]			
			Ant.1	Ant.2	MIMO(CDD)	MIMO(SDM)
802.11ac (VHT-80)	5210	42	N/A	13.24	N/A	N/A
	5290	58		13.17		
	5530	106		13.09		
	5610	122		13.18		
	5690	138		13.17		
	5775	155		13.05		

Table 9.4.18 IEEE 802.11ac VHT80 Average RF Power for DBS Mode (Reduced Output Power during Scenarios with 2.4 GHz WLAN Ant 1 and 5 GHz WLAN Ant 2)

Justification for reduced test configurations for WIFI channels per KDB Publication 248227 D01v02r02:

- Power measurements were performed for the transmission mode configuration with the highest maximum output power specified for production units.
- For transmission modes with the same maximum output power specification, powers were measured for the largest channel bandwidth, lowest order modulation and lowest data rate.
- For transmission modes with identical maximum specified output power, channel bandwidth, modulation and data rates, power measurements were required for all identical configurations.
- For each transmission mode configuration, powers were measured for the highest and lowest channels; and at the mid-band channel(s) when there were at least 3 channels supported. For configurations with multiple mid-band channels, duo to an even number of channels, both channels were measured.
- Output Power and SAR is not required for 802.11 g/n HT20/ac VHT20 channels when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjust SAR is ≤ 1.2 W/kg.
- The underlined data rate and channel above were tested for SAR.

The average output powers of this device were tested by below configuration.

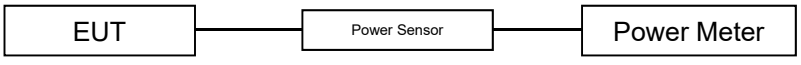

Figure 9.4 Power Measurement Setup

9.5 Bluetooth Conducted Powers

Burst Modulated Average[dBm]		
Bluetooth 1 Mbps	Maximum	13.5
	Nominal	12.5
Bluetooth 2 Mbps	Maximum	13.0
	Nominal	12.0
Bluetooth 3 Mbps	Maximum	13.0
	Nominal	12.0
Bluetooth LE	Maximum	7.0
	Nominal	6.0

Table 9.5.1 Nominal and Maximum Output Power Spec (Burst)

Frame Modulated Average[dBm]		
Bluetooth 1 Mbps	Maximum	12.35
	Nominal	11.35
Bluetooth 2 Mbps	Maximum	11.85
	Nominal	10.85
Bluetooth 3 Mbps	Maximum	11.85
	Nominal	10.85
Bluetooth (LE / 1Mbps)	Maximum	6.31
	Nominal	5.31
Bluetooth (LE / 2Mbps)	Maximum	4.59
	Nominal	3.59

Table 9.5.2 Nominal and Maximum Output Power Spec (Frame)

Channel	Frequency	Burst AVG Output Power (1Mbps)	Frame AVG Output Power (1Mbps)	Burst AVG Output Power (2Mbps)	Frame AVG Output Power (2Mbps)	Burst AVG Output Power (3Mbps)	Frame AVG Output Power (3Mbps)
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)	(dBm)
Low	2402	12.48	11.33	11.89	10.74	11.89	10.74
Mid	2441	13.39	12.24	12.82	11.67	12.83	11.68
High	2480	12.38	11.23	11.83	10.68	11.84	10.69

Table 9.5.3 Bluetooth Burst and Frame Average RF Power

Channel	Frequency	Burst AVG Output Power(LE / 1Mbps)	Frame AVG Output Power(LE / 1Mbps)	Burst AVG Output Power(LE / 2Mbps)	Frame AVG Output Power(LE / 2Mbps)
	(MHz)	(dBm)	(dBm)	(dBm)	(dBm)
Low	2402	5.67	4.98	5.60	3.19
Mid	2440	6.47	5.78	6.46	4.05
High	2480	6.14	5.45	6.10	3.69

Table 9.5.4 Bluetooth LE Burst and Frame Average RF Power

- **Bluetooth Conducted Powers procedures**

1. Bluetooth (BDR, EDR)
   1) Enter DUT mode in EUT and operate it.
      When it operating, The EUT is transmitting at maximum power level and duty cycle fixed.
   2) Instruments and EUT were connected like Figure 9.5.1(A).
   3) The maximum output powers of BDR(1 Mbps), EDR(2, 3 Mbps) and each frequency were set by a Bluetooth Tester.
   4) Power levels were measured by a Power Meter.

2. Bluetooth (LE)
   1) Enter LE mode in EUT and operate it.
      When it operating, The EUT is transmitting at maximum power level and duty cycle fixed.
   2) Instruments and EUT were connected like Figure 9.5.1(B).
   3) The average conducted output powers of LE and each frequency can measurement according to setting program in EUT.
   4) Power levels were measured by a Power Meter.

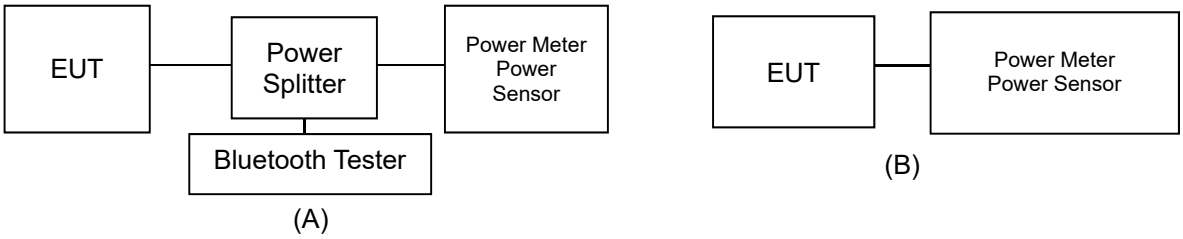

Figure 9.5.1 Average Power Measurement Setup

- **Bluetooth Transmission Plot**

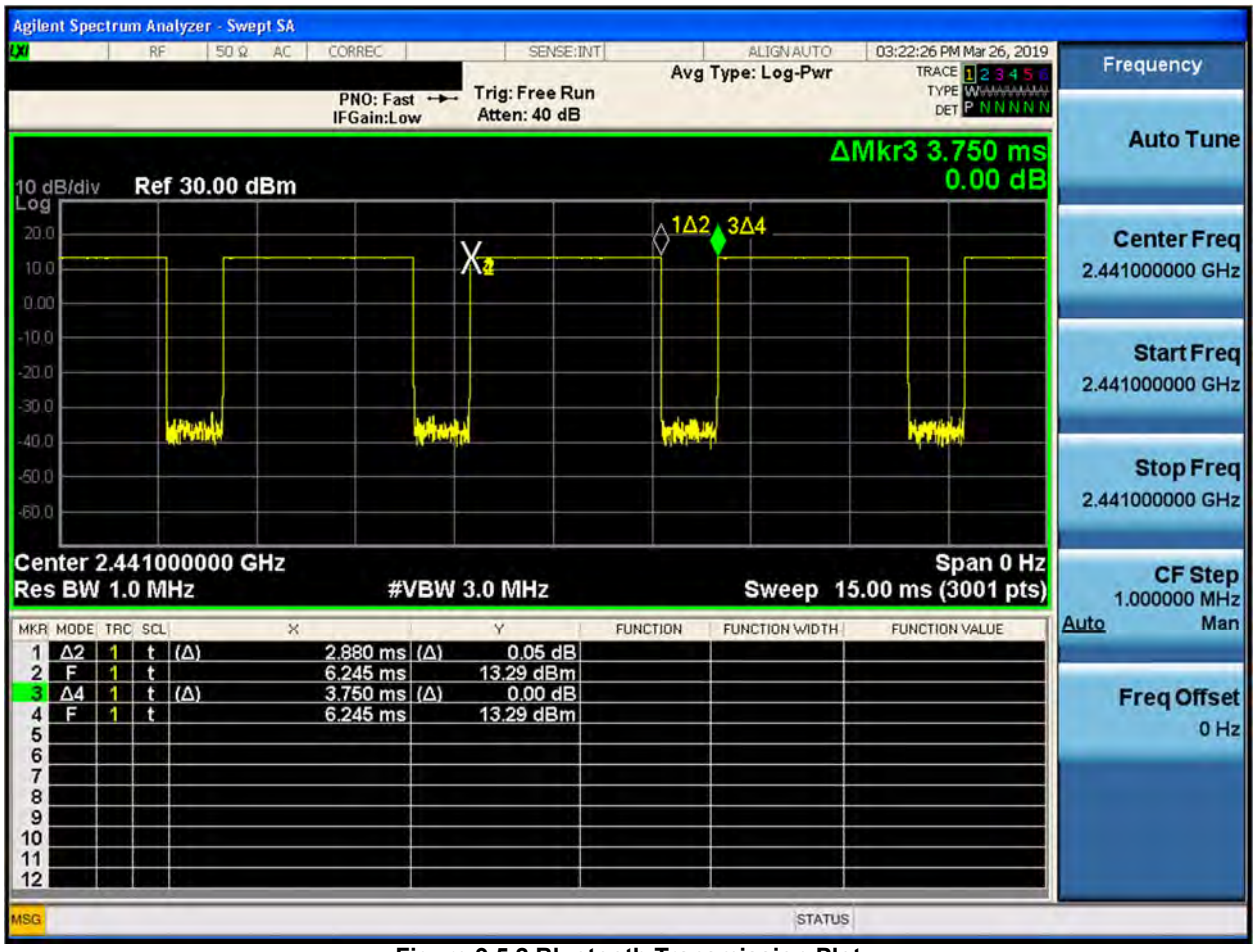

Figure 9.5.2 Bluetooth Transmission Plot

- **Bluetooth Duty Cycle Calculation**

Duty Cycle = Pulse/Period * 100% = (2.880/3.750) * 100 = 76.8%

10. SYSTEM VERIFICATION

10.1 Tissue Verification

MEASURED TISSUE PARAMETERS										
Date(s)	Tissue Type	Ambient Temp.[°C]	Liquid Temp.[°C]	Measured Frequency [MHz]	Target Dielectric Constant, εr	Target Conductivity, σ (S/m)	Measured Dielectric Constant, εr	Measured Conductivity, σ (S/m)	Er Deviation [%]	σ Deviation [%]
Apr. 03. 2019	750 Head	22.1	22.0	707.5	42.129	0.887	41.709	0.892	-1.00	0.56
				750.0	41.900	0.890	41.160	0.926	-1.77	4.04
Apr. 03. 2019	750 Body	22.1	21.9	707.5	55.699	0.960	56.280	0.931	1.04	-3.02
				750.0	55.531	0.963	55.947	0.967	0.75	0.42
Apr. 04. 2019	750 Head	22.1	21.9	750.0	41.900	0.890	40.696	0.887	-2.87	-0.34
				782.0	41.749	0.894	40.266	0.917	-3.55	2.57
Apr. 04. 2019	750 Body	22.1	21.8	750.0	55.531	0.963	55.963	0.967	0.78	0.42
				782.0	55.406	0.966	55.654	0.996	0.45	3.11
Mar. 14. 2019	835 Head	22.4	22.1	824.2	41.552	0.899	41.636	0.883	0.20	-1.78
				826.4	41.542	0.899	41.616	0.885	0.18	-1.56
				835.0	41.500	0.900	41.511	0.893	0.03	-0.78
				836.6	41.500	0.901	41.496	0.894	-0.01	-0.78
				846.6	41.500	0.912	41.355	0.903	-0.35	-0.99
				848.8	41.500	0.914	41.322	0.905	-0.43	-0.98
Mar. 15. 2019	835 Body	22.7	22.6	824.2	55.243	0.969	54.757	0.978	-0.88	0.93
				826.4	55.235	0.969	54.737	0.981	-0.90	1.24
				835.0	55.200	0.970	54.666	0.990	-0.97	2.06
				836.6	55.197	0.971	54.656	0.992	-0.98	2.16
				846.6	55.166	0.984	54.583	1.003	-1.06	1.93
				848.8	55.160	0.986	54.565	1.006	-1.08	2.03
Apr. 01. 2019	835 Head	21.8	21.7	821.5	41.566	0.898	41.676	0.878	0.26	-2.23
				829.0	41.528	0.899	41.595	0.886	0.16	-1.45
				831.5	41.519	0.900	41.563	0.888	0.11	-1.33
				835.0	41.500	0.900	41.519	0.891	0.05	-1.00
				836.5	41.500	0.901	41.503	0.893	0.01	-0.89
				841.5	41.500	0.906	41.434	0.898	-0.16	-0.88
				844.0	41.500	0.910	41.401	0.900	-0.24	-1.10
Apr. 02. 2019	835 Body	22.3	22.1	821.5	55.255	0.969	54.216	0.963	-1.88	-0.62
				829.0	55.223	0.970	54.155	0.971	-1.93	0.10
				831.5	55.216	0.970	54.137	0.974	-1.95	0.41
				835.0	55.200	0.970	54.111	0.978	-1.97	0.82
				836.5	55.197	0.971	54.100	0.980	-1.99	0.93
				841.5	55.182	0.977	54.063	0.986	-2.03	0.92
				844.0	55.172	0.981	54.043	0.989	-2.05	0.82
Mar. 20. 2019	1800 Head	21.8	21.7	1712.4	40.126	1.350	41.525	1.328	3.49	-1.63
				1720.0	40.114	1.354	41.472	1.337	3.39	-1.26
				1732.4	40.097	1.361	41.384	1.350	3.21	-0.81
				1745.0	40.079	1.369	41.284	1.362	3.01	-0.51
				1752.6	40.069	1.373	41.225	1.368	2.89	-0.36
				1770.0	40.043	1.383	41.116	1.381	2.68	-0.14
				1800.0	40.000	1.400	40.959	1.404	2.40	0.29
Mar. 21. 2019	1800 Body	21.6	21.4	1712.4	53.596	1.464	55.452	1.458	3.46	-0.41
				1720.0	53.580	1.469	55.437	1.463	3.47	-0.41
				1732.4	53.556	1.477	55.395	1.471	3.43	-0.41
				1745.0	53.530	1.485	55.344	1.480	3.39	-0.34
				1752.6	53.516	1.489	55.315	1.487	3.36	-0.13
				1770.0	53.480	1.501	55.252	1.502	3.31	0.07
				1800.0	53.300	1.520	55.187	1.532	3.54	0.79

MEASURED TISSUE PARAMETERS										
Date(s)	Tissue Type	Ambient Temp.[°C]	Liquid Temp.[°C]	Measured Frequency [MHz]	Target Dielectric Constant, εr	Target Conductivity, σ (S/m)	Measured Dielectric Constant, εr	Measured Conductivity, σ (S/m)	Er Deviation [%]	σ Deviation [%]
Mar. 18. 2019	1900 Head	20.8	20.6	1850.2	40.000	1.400	40.247	1.356	0.62	-3.14
				1852.4	40.000	1.400	40.239	1.358	0.60	-3.00
				1860.0	40.000	1.400	40.201	1.366	0.50	-2.43
				1880.0	40.000	1.400	40.087	1.384	0.22	-1.14
				1900.0	40.000	1.400	39.956	1.401	-0.11	0.07
				1907.6	40.000	1.400	39.911	1.407	-0.22	0.50
				1909.8	40.000	1.400	39.900	1.409	-0.25	0.64
Mar. 19. 2019	1900 Body	22.2	21.9	1850.2	53.300	1.520	55.355	1.486	3.86	-2.24
				1852.4	53.300	1.520	55.358	1.489	3.86	-2.04
				1860.0	53.300	1.520	55.342	1.498	3.83	-1.45
				1880.0	53.300	1.520	55.251	1.514	3.66	-0.39
				1900.0	53.300	1.520	55.152	1.528	3.47	0.53
				1907.6	53.300	1.520	55.116	1.533	3.41	0.86
				1909.8	53.300	1.520	55.109	1.535	3.39	0.99
Mar. 19. 2019	2450 Head	20.6	20.9	2402.0	39.282	1.757	40.007	1.756	1.85	-0.06
				2412.0	39.265	1.766	39.987	1.771	1.84	0.28
				2437.0	39.222	1.788	39.977	1.804	1.92	0.89
				2441.0	39.215	1.792	39.973	1.809	1.93	0.95
				2450.0	39.200	1.800	39.960	1.818	1.94	1.00
				2462.0	39.184	1.813	39.937	1.829	1.92	0.88
				2467.0	39.177	1.818	39.917	1.833	1.89	0.83
				2472.0	39.171	1.823	39.894	1.837	1.85	0.77
				2480.0	39.160	1.832	39.846	1.843	1.75	0.60
Mar. 19. 2019	2450 Body	20.6	21.0	2402.0	52.764	1.904	53.612	1.907	1.61	0.16
				2412.0	52.751	1.914	53.592	1.924	1.59	0.52
				2437.0	52.717	1.938	53.572	1.962	1.62	1.24
				2441.0	52.712	1.941	53.567	1.967	1.62	1.34
				2450.0	52.700	1.950	53.556	1.977	1.62	1.38
				2462.0	52.685	1.967	53.537	1.987	1.62	1.02
				2467.0	52.678	1.974	53.522	1.991	1.60	0.86
				2472.0	52.672	1.981	53.502	1.994	1.58	0.66
				2480.0	52.662	1.993	53.470	2.000	1.53	0.35

MEASURED TISSUE PARAMETERS										
Date(s)	Tissue Type	Ambient Temp.[°C]	Liquid Temp.[°C]	Measured Frequency [MHz]	Target Dielectric Constant, εr	Target Conductivity, σ (S/m)	Measured Dielectric Constant, εr	Measured Conductivity, σ (S/m)	Er Deviation [%]	σ Deviation [%]
Mar. 18. 2019	2600 Head	20.3	20.2	2510.0	39.120	1.864	39.394	1.865	0.70	0.05
				2535.0	39.087	1.891	39.313	1.897	0.58	0.32
				2560.0	39.053	1.917	39.258	1.930	0.52	0.68
				2600.0	39.000	1.960	39.139	1.971	0.36	0.56
Apr. 08. 2019	2600 Body	20.8	20.7	2510.0	52.624	2.035	51.723	1.981	-1.71	-2.65
				2535.0	52.592	2.071	51.668	2.018	-1.76	-2.56
				2560.0	52.560	2.106	51.642	2.053	-1.75	-2.52
				2600.0	52.509	2.163	51.533	2.093	-1.86	-3.24
Apr. 03. 2019	2600 Head	21.3	21.2	2506.0	39.125	1.860	39.528	1.865	1.03	0.27
				2549.5	39.068	1.906	39.396	1.921	0.84	0.79
				2593.0	39.009	1.953	39.279	1.969	0.69	0.82
				2600.0	39.000	1.960	39.252	1.975	0.65	0.77
				2636.5	38.955	2.000	39.095	2.011	0.36	0.55
				2680.0	38.900	2.048	38.964	2.067	0.16	0.93
Apr. 04. 2019	2600 Body	21.0	20.8	2506.0	52.629	2.029	51.780	1.974	-1.61	-2.71
				2549.5	52.574	2.090	51.701	2.038	-1.66	-2.49
				2593.0	52.518	2.153	51.609	2.085	-1.73	-3.16
				2600.0	52.509	2.163	51.583	2.091	-1.76	-3.33
				2636.5	52.463	2.214	51.423	2.131	-1.98	-3.75
				2680.0	52.407	2.276	51.347	2.193	-2.02	-3.65
Apr. 01. 2019	5200 Body	20.3	20.5	5180.0	49.041	5.276	49.286	5.179	0.50	-1.84
				5190.0	49.028	5.288	49.252	5.189	0.46	-1.87
				5200.0	49.014	5.299	49.214	5.204	0.41	-1.79
				5210.0	49.001	5.311	49.187	5.217	0.38	-1.77
				5220.0	48.987	5.323	49.159	5.228	0.35	-1.78
				5230.0	48.974	5.334	49.128	5.240	0.31	-1.76
				5240.0	48.960	5.346	49.098	5.252	0.28	-1.76
Apr. 02. 2019	5300 Head	20.6	20.8	5260.0	35.940	4.720	35.935	4.713	-0.01	-0.15
				5270.0	35.930	4.730	35.917	4.727	-0.04	-0.06
				5280.0	35.920	4.740	35.913	4.739	-0.02	-0.02
				5290.0	35.910	4.750	35.909	4.747	0.00	-0.06
				5300.0	35.900	4.760	35.886	4.755	-0.04	-0.11
				5310.0	35.890	4.770	35.862	4.766	-0.08	-0.08
				5320.0	35.880	4.780	35.845	4.777	-0.10	-0.06
Apr. 02. 2019	5300 Body	20.4	20.7	5260.0	48.933	5.369	48.538	5.494	-0.81	2.33
				5270.0	48.919	5.381	48.506	5.508	-0.84	2.36
				5280.0	48.906	5.393	48.487	5.521	-0.86	2.37
				5290.0	48.892	5.404	48.464	5.532	-0.88	2.37
				5300.0	48.879	5.416	48.440	5.545	-0.90	2.38
				5310.0	48.865	5.428	48.414	5.561	-0.92	2.45
				5320.0	48.851	5.439	48.403	5.578	-0.92	2.56

MEASURED TISSUE PARAMETERS										
Date(s)	Tissue Type	Ambient Temp.[°C]	Liquid Temp.[°C]	Measured Frequency [MHz]	Target Dielectric Constant, εr	Target Conductivity, σ (S/m)	Measured Dielectric Constant, εr	Measured Conductivity, σ (S/m)	Er Deviation [%]	σ Deviation [%]
Apr. 03. 2019	5600 Head	20.7	20.9	5500.0	35.650	4.965	35.193	4.927	-1.28	-0.77
				5510.0	35.635	4.976	35.182	4.938	-1.27	-0.76
				5530.0	35.605	4.997	35.140	4.963	-1.31	-0.68
				5550.0	35.575	5.018	35.116	4.985	-1.29	-0.66
				5580.0	35.530	5.049	35.042	5.019	-1.37	-0.59
				5600.0	35.500	5.070	35.008	5.047	-1.39	-0.45
				5660.0	35.440	5.130	34.921	5.111	-1.46	-0.37
				5670.0	35.430	5.140	34.901	5.119	-1.49	-0.41
				5690.0	35.410	5.160	34.850	5.142	-1.58	-0.35
				5710.0	35.390	5.180	34.822	5.168	-1.60	-0.23
				5720.0	35.380	5.190	34.816	5.177	-1.59	-0.25
Apr. 03. 2019	5600 Body	20.2	20.6	5500.0	48.607	5.650	48.487	5.470	-0.25	-3.19
				5510.0	48.594	5.661	48.486	5.485	-0.22	-3.11
				5530.0	48.566	5.685	48.451	5.515	-0.24	-2.99
				5550.0	48.539	5.708	48.438	5.541	-0.21	-2.93
				5580.0	48.499	5.743	48.384	5.578	-0.24	-2.87
				5600.0	48.471	5.766	48.356	5.610	-0.24	-2.71
				5660.0	48.390	5.836	48.272	5.693	-0.24	-2.45
				5670.0	48.376	5.848	48.257	5.702	-0.25	-2.50
				5690.0	48.349	5.872	48.222	5.725	-0.26	-2.50
				5710.0	48.322	5.895	48.194	5.751	-0.26	-2.44
				5720.0	48.309	5.907	48.175	5.763	-0.28	-2.44
Apr. 04. 2019	5800 Head	20.6	20.7	5745.0	35.355	5.215	34.806	5.221	-1.55	0.12
				5755.0	35.345	5.225	34.795	5.234	-1.56	0.17
				5775.0	35.325	5.245	34.771	5.252	-1.57	0.13
				5785.0	35.315	5.255	34.749	5.261	-1.60	0.11
				5795.0	35.305	5.265	34.723	5.272	-1.65	0.13
				5800.0	35.300	5.270	34.711	5.278	-1.67	0.15
				5825.0	35.275	5.296	34.683	5.307	-1.68	0.21
Apr. 04. 2019	5800 Body	20.5	20.6	5745.0	48.275	5.936	47.865	5.771	-0.85	-2.78
				5755.0	48.261	5.947	47.851	5.788	-0.85	-2.67
				5775.0	48.234	5.971	47.838	5.813	-0.82	-2.65
				5785.0	48.220	5.982	47.824	5.823	-0.82	-2.66
				5795.0	48.207	5.994	47.814	5.835	-0.82	-2.65
				5800.0	48.200	6.000	47.794	5.840	-0.84	-2.67
				5825.0	48.166	6.029	47.768	5.864	-0.83	-2.74

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

Measurement Procedure for Tissue verification:

1) The network analyzer and probe system was configured and calibrated.
2) The probe was immersed in the sample which was placed in a nonmetallic container. Trapped air bubbles beneath the flange were minimized by placing the probe at a slight angle.
3) The complex admittance with respect to the probe aperture was measured
4) The complex relative permittivity , for example from the below equation (Pournaropoulos and Misra):

$$Y = \frac{j2\omega\varepsilon_r\varepsilon_0}{[\ln(b/a)]^2}\int_a^b\int_a^b\int_0^\pi \cos\phi' \frac{\exp\left[-j\omega r(\mu_0\varepsilon_r^{'}\varepsilon_0)^{1/2}\right]}{r} d\phi' d\rho' d\rho$$

where Y is the admittance of the probe in contact with the sample, the primed and unprimed coordinates refer to source and observation points, respectively, $r^2 = \rho^2 + \rho'^2 - 2\rho\rho'\cos\phi'$, ω is the angular frequency, and $j = \sqrt{-1}$.

10.2 Test System Verification

Prior to assessment, the system is verified to the ± 10 % of the specifications at using the SAR Dipole kit(s). (Graphic Plots Attached)

Table 10.2.1 System Verification Results (1g)

SYSTEM DIPOLE VERIFICATION TARGET & MEASURED												
SAR System #	Freq. [MHz]	SAR Dipole kits	Date(s)	Tissue Type	Ambient Temp. [°C]	Liquid Temp. [°C]	Probe S/N	Input Power (mW)	1 W Target SAR_{1g} (W/kg)	Measured SAR_{1g} (W/kg)	1 W Normalized SAR_{1g} (W/kg)	Deviation [%]
E	750	D750V3, SN:1049	Apr. 03. 2019	Head	22.1	22.0	3933	250	8.38	2.17	8.68	3.58
E	750	D750V3, SN:1049	Apr. 03. 2019	Body	22.1	21.9	3933	250	8.70	2.27	9.08	4.37
E	750	D750V3, SN:1049	Apr. 04. 2019	Head	22.1	21.9	3933	250	8.38	2.14	8.56	2.15
E	750	D750V3, SN:1049	Apr. 04. 2019	Body	22.1	21.8	3933	250	8.70	2.19	8.76	0.69
E	835	D835V2, SN:4d159	Mar. 14. 2019	Head	22.4	22.1	7337	250	9.36	2.46	9.84	5.13
E	835	D835V2, SN:4d159	Mar. 15. 2019	Body	22.7	22.6	7337	250	9.56	2.41	9.64	0.84
E	835	D835V2, SN:4d159	Apr. 01. 2019	Head	21.8	21.7	7337	250	9.36	2.47	9.88	5.56
E	835	D835V2, SN:4d159	Apr. 02. 2019	Body	22.3	22.1	7337	250	9.56	2.58	10.32	7.95
E	1800	D1800V2, SN:2d202	Mar. 20. 2019	Head	21.8	21.7	7337	100	38.7	3.81	38.10	-1.55
E	1800	D1800V2, SN:2d202	Mar. 21. 2019	Body	21.6	21.4	7337	100	38.8	4.13	41.30	6.44
E	1900	D1900V2, SN:5d176	Mar. 18. 2019	Head	20.8	20.6	7337	100	40.7	4.05	40.50	-0.49
E	1900	D1900V2, SN:5d176	Mar. 19. 2019	Body	22.2	21.9	7337	100	39.7	3.94	39.40	-0.76
D	2450	D2450V2, SN: 920	Mar. 19. 2019	Head	20.6	20.9	3916	100	51.9	4.89	48.90	-5.78
D	2450	D2450V2, SN: 920	Mar. 19. 2019	Body	20.6	21.0	3916	100	52.1	5.33	53.30	2.30
D	2600	D2600V2, SN: 1016	Mar. 18. 2019	Head	20.3	20.2	7337	100	56.6	5.75	57.50	1.59
D	2600	D2600V2, SN: 1016	Apr. 08. 2019	Body	20.8	20.7	7337	100	53.5	5.52	55.20	3.18
D	2600	D2600V2, SN: 1016	Apr. 03. 2019	Head	21.3	21.2	7337	100	56.6	5.64	56.40	-0.35
D	2600	D2600V2, SN: 1016	Apr. 04. 2019	Body	21.0	20.8	7337	100	53.5	5.51	55.10	2.99
A	5200	D5GHzV2, SN:1103	Apr. 01. 2019	Body	20.3	20.5	3930	100	75.5	7.06	70.60	-6.49
F	5300	D5GHzV2, SN:1103	Apr. 02. 2019	Head	20.6	20.8	3866	100	82.4	8.07	80.70	-2.06
A	5300	D5GHzV2, SN:1103	Apr. 02. 2019	Body	20.4	20.7	3930	100	74.4	7.40	74.00	-0.54
F	5500	D5GHzV2, SN:1103	Apr. 03. 2019	Head	20.7	20.9	3866	100	84.0	8.15	81.50	-2.98
A	5500	D5GHzV2, SN:1103	Apr. 03. 2019	Body	20.2	20.6	3930	100	79.6	8.14	81.40	2.26
F	5600	D5GHzV2, SN:1103	Apr. 03. 2019	Head	20.7	20.9	3866	100	84.0	8.25	82.50	-1.79
A	5600	D5GHzV2, SN:1103	Apr. 03. 2019	Body	20.2	20.6	3930	100	79.7	7.85	78.50	-1.51
F	5800	D5GHzV2, SN:1103	Apr. 04. 2019	Head	20.6	20.7	3866	100	81.4	8.52	85.20	4.67
A	5800	D5GHzV2, SN:1103	Apr. 04. 2019	Body	20.5	20.6	3930	100	74.8	7.59	75.90	1.47

Table 10.2.2 System Verification Results (10g)

SYSTEM DIPOLE VERIFICATION TARGET & MEASURED												
SAR System #	Freq. [MHz]	SAR Dipole kits	Date(s)	Tissue Type	Ambient Temp. [°C]	Liquid Temp. [°C]	Probe S/N	Input Power (mW)	1 W Target SAR_{10g} (W/kg)	Measured SAR_{10g} (W/kg)	1 W Normalized SAR_{10g} (W/kg)	Deviation [%]
A	5300	D5GHzV2, SN:1103	Apr. 02. 2019	Body	20.4	20.7	3930	100	20.9	2.06	20.60	-1.44
A	5500	D5GHzV2, SN:1103	Apr. 03. 2019	Body	20.2	20.6	3930	100	22.1	2.27	22.70	2.71
A	5600	D5GHzV2, SN:1103	Apr. 03. 2019	Body	20.2	20.6	3930	100	22.3	2.17	21.70	-2.69
A	5800	D5GHzV2, SN:1103	Apr. 04. 2019	Body	20.5	20.6	3930	100	20.9	2.11	21.10	0.96

Note1 : System Verification was measured with input 250 mW, 100 mW and normalized to 1W.
Note2 : Full system validation status and results can be found in Appendix D.

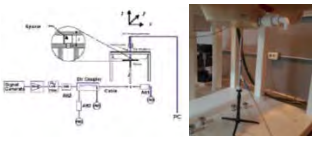

Figure 10.1 Dipole Verification Test Setup Diagram & Photo

11. SAR TEST RESULTS

11.1 Head SAR Results

Table 11.1.1 GSM/GPRS 850 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/ Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	# of Time Slots	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch													
836.6	190	GSM850	GSM	33.70	33.20	0.170	Left Touch	FCC #1	1	1:8.3	0.092	1.122	**0.103**	A1
836.6	190	GSM850	GSM	33.70	33.20	0.190	Right Touch	FCC #1	1	1:8.3	0.082	1.122	0.092	
836.6	190	GSM850	GSM	33.70	33.20	0.190	Left Tilt	FCC #1	1	1:8.3	0.032	1.122	0.036	
836.6	190	GSM850	GSM	33.70	33.20	0.160	Right Tilt	FCC #1	1	1:8.3	0.034	1.122	0.038	
836.6	190	GSM850	GPRS	30.70	30.60	-0.060	Left Touch	FCC #1	3	1:2.77	0.142	1.023	**0.145**	A2
836.6	190	GSM850	GPRS	30.70	30.60	0.130	Right Touch	FCC #1	3	1:2.77	0.128	1.023	0.131	
836.6	190	GSM850	GPRS	30.70	30.60	0.010	Left Tilt	FCC #1	3	1:2.77	0.047	1.023	0.048	
836.6	190	GSM850	GPRS	30.70	30.60	-0.010	Right Tilt	FCC #1	3	1:2.77	0.062	1.023	0.063	
836.6	190	GSM850	GPRS	30.70	30.60	0.120	Left Touch	FCC #1	3	1:2.77	0.140	1.023	0.143	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.2 PCS/GPRS 1900 Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/ Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	# of Time Slots	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch													
1880.0	661	PCS1900	PCS	30.70	30.70	0.000	Left Touch	FCC #1	1	1:8.3	0.013	1.000	0.013	
1880.0	661	PCS1900	PCS	30.70	30.70	0.000	Right Touch	FCC #1	1	1:8.3	0.032	1.000	**0.032**	A3
1880.0	661	PCS1900	PCS	30.70	30.70	0.000	Left Tilt	FCC #1	1	1:8.3	0.006	1.000	0.006	
1880.0	661	PCS1900	PCS	30.70	30.70	0.000	Right Tilt	FCC #1	1	1:8.3	0.003	1.000	0.003	
1880.0	661	PCS1900	GPRS	27.70	27.70	0.000	Left Touch	FCC #1	3	1:2.77	0.020	1.000	0.020	
1880.0	661	PCS1900	GPRS	27.70	27.70	0.000	Right Touch	FCC #1	3	1:2.77	0.044	1.000	**0.044**	A4
1880.0	661	PCS1900	GPRS	27.70	27.70	0.000	Left Tilt	FCC #1	3	1:2.77	0.008	1.000	0.008	
1880.0	661	PCS1900	GPRS	27.70	27.70	0.000	Right Tilt	FCC #1	3	1:2.77	0.004	1.000	0.004	
1880.0	661	PCS1900	GPRS	27.70	27.70	0.000	Right Touch	FCC #1	3	1:2.77	0.043	1.000	0.043	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.3 WCDMA 850 Head SAR

MEASUREMENT RESULTS													
FREQUENCY		Mode/ Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch												
836.6	4183	WCDMA 850	RMC	25.50	25.41	0.040	Left Touch	FCC #1	1:1	0.138	1.021	**0.141**	A5
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.180	Right Touch	FCC #1	1:1	0.129	1.021	0.132	
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.030	Left Tilt	FCC #1	1:1	0.054	1.021	0.055	
836.6	4183	WCDMA 850	RMC	25.50	25.41	0.050	Right Tilt	FCC #1	1:1	0.068	1.021	0.069	
836.6	4183	WCDMA 850	RMC	25.50	25.41	0.080	Left Touch	FCC #1	1:1	0.136	1.021	0.139	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram					

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.4 WCDMA 1700 Head SAR

MEASUREMENT RESULTS													
FREQUENCY		Mode/ Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch												
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.120	Left Touch	FCC #1	1:1	0.034	1.054	0.036	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.140	Right Touch	FCC #1	1:1	0.071	1.054	**0.075**	A6
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.000	Left Tilt	FCC #1	1:1	0.016	1.054	0.017	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.170	Right Tilt	FCC #1	1:1	0.013	1.054	0.014	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.140	Right Touch	FCC #1	1:1	0.070	1.054	0.074	
ANSI / IEEE C95.1-2005– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram					

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.5 WCDMA 1900 Head SAR

MEASUREMENT RESULTS													
FREQUENCY		Mode/ Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch												
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.000	Left Touch	FCC #1	1:1	0.027	1.054	0.028	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.180	Right Touch	FCC #1	1:1	0.066	1.054	**0.070**	A7
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.000	Left Tilt	FCC #1	1:1	0.010	1.054	0.011	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	-0.170	Right Tilt	FCC #1	1:1	0.010	1.054	0.011	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	-0.030	Right Touch	FCC #1	1:1	0.065	1.054	0.069	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram					

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.6 LTE Band 12 Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
707.5	23095	LTE B12	10	25.50	25.11	-0.100	0	Left Touch	FCC #1	QPSK	1	25	1:1	0.151	1.094	0.165	
707.5	23095	LTE B12	10	24.50	24.02	0.170	1	Left Touch	FCC #1	QPSK	25	12	1:1	0.104	1.117	0.116	
707.5	23095	LTE B12	10	25.50	25.11	-0.060	0	Right Touch	FCC #1	QPSK	1	25	1:1	0.190	1.094	**0.208**	A8
707.5	23095	LTE B12	10	24.50	24.02	0.190	1	Right Touch	FCC #1	QPSK	25	12	1:1	0.127	1.117	0.142	
707.5	23095	LTE B12	10	25.50	25.11	-0.130	0	Left Tilt	FCC #1	QPSK	1	25	1:1	0.066	1.094	0.072	
707.5	23095	LTE B12	10	24.50	24.02	0.110	1	Left Tilt	FCC #1	QPSK	25	12	1:1	0.047	1.117	0.052	
707.5	23095	LTE B12	10	25.50	25.11	0.170	0	Right Tilt	FCC #1	QPSK	1	25	1:1	0.098	1.094	0.107	
707.5	23095	LTE B12	10	24.50	24.02	-0.180	1	Right Tilt	FCC #1	QPSK	25	12	1:1	0.067	1.117	0.075	
707.5	23095	LTE B12	10	25.50	25.11	-0.150	0	Right Touch	FCC #1	QPSK	1	25	1:1	0.186	1.094	0.203	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.7 LTE Band 13 Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
782.0	23230	LTE B13	10	25.50	25.12	-0.120	0	Left Touch	FCC #1	QPSK	1	25	1:1	0.126	1.091	0.137	
782.0	23230	LTE B13	10	24.50	24.03	-0.150	1	Left Touch	FCC #1	QPSK	25	12	1:1	0.092	1.114	0.102	
782.0	23230	LTE B13	10	25.50	25.12	0.160	0	Right Touch	FCC #1	QPSK	1	25	1:1	0.143	1.091	**0.156**	A9
782.0	23230	LTE B13	10	24.50	24.03	-0.050	1	Right Touch	FCC #1	QPSK	25	12	1:1	0.093	1.114	0.104	
782.0	23230	LTE B13	10	25.50	25.12	0.030	0	Left Tilt	FCC #1	QPSK	1	25	1:1	0.067	1.091	0.073	
782.0	23230	LTE B13	10	24.50	24.03	0.010	1	Left Tilt	FCC #1	QPSK	25	12	1:1	0.054	1.114	0.060	
782.0	23230	LTE B13	10	25.50	25.12	0.150	0	Right Tilt	FCC #1	QPSK	1	25	1:1	0.094	1.091	0.103	
782.0	23230	LTE B13	10	24.50	24.03	-0.120	1	Right Tilt	FCC #1	QPSK	25	12	1:1	0.067	1.114	0.075	
782.0	23230	LTE B13	10	25.50	25.12	0.000	0	Right Touch	FCC #1	QPSK	1	25	1:1	0.141	1.091	0.154	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.8 LTE Band 26 (Cell) Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
831.5	26865	LTE B26	15	25.50	25.07	0.120	0	Left Touch	FCC #1	QPSK	1	0	1:1	0.129	1.104	0.142	
831.5	26865	LTE B26	15	24.50	24.16	-0.150	1	Left Touch	FCC #1	QPSK	25	0	1:1	0.100	1.081	0.108	
831.5	26865	LTE B26	15	25.50	25.07	-0.010	0	Right Touch	FCC #1	QPSK	1	0	1:1	0.148	1.104	**0.163**	A10
831.5	26865	LTE B26	15	24.50	24.16	0.080	1	Right Touch	FCC #1	QPSK	25	0	1:1	0.103	1.081	0.111	
831.5	26865	LTE B26	15	25.50	25.07	0.130	0	Left Tilt	FCC #1	QPSK	1	0	1:1	0.064	1.104	0.071	
831.5	26865	LTE B26	15	24.50	24.16	0.030	1	Left Tilt	FCC #1	QPSK	25	0	1:1	0.046	1.081	0.050	
831.5	26865	LTE B26	15	25.50	25.07	-0.010	0	Right Tilt	FCC #1	QPSK	1	0	1:1	0.072	1.104	0.079	
831.5	26865	LTE B26	15	24.50	24.16	-0.020	1	Right Tilt	FCC #1	QPSK	25	0	1:1	0.044	1.081	0.048	
831.5	26865	LTE B26	15	25.50	25.07	0.110	0	Right Touch	FCC #1	QPSK	1	0	1:1	0.147	1.104	0.162	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.9 LTE Band 5 (Cell) Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
836.5	20525	LTE B5	10	25.50	24.97	0.020	0	Left Touch	FCC #1	QPSK	1	0	1:1	0.149	1.130	**0.168**	A11
836.5	20525	LTE B5	10	24.50	24.05	0.050	1	Left Touch	FCC #1	QPSK	25	0	1:1	0.095	1.109	0.105	
836.5	20525	LTE B5	10	25.50	24.97	0.080	0	Right Touch	FCC #1	QPSK	1	0	1:1	0.117	1.130	0.132	
836.5	20525	LTE B5	10	24.50	24.05	-0.040	1	Right Touch	FCC #1	QPSK	25	0	1:1	0.083	1.109	0.092	
836.5	20525	LTE B5	10	25.50	24.97	0.110	0	Left Tilt	FCC #1	QPSK	1	0	1:1	0.056	1.130	0.063	
836.5	20525	LTE B5	10	24.50	24.05	-0.150	1	Left Tilt	FCC #1	QPSK	25	0	1:1	0.037	1.109	0.041	
836.5	20525	LTE B5	10	25.50	24.97	0.190	0	Right Tilt	FCC #1	QPSK	1	0	1:1	0.057	1.130	0.064	
836.5	20525	LTE B5	10	24.50	24.05	0.120	1	Right Tilt	FCC #1	QPSK	25	0	1:1	0.036	1.109	0.040	
836.5	20525	LTE B5	10	25.50	24.97	-0.080	0	Left Touch	FCC #1	QPSK	1	0	1:1	0.146	1.130	0.165	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.10 LTE Band 66 (AWS) Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
1770.0	132572	LTE B66	20	24.50	24.44	-0.070	0	Left Touch	FCC #1	QPSK	1	0	1:1	0.041	1.014	0.042	
1770.0	132572	LTE B66	20	23.50	23.42	-0.170	1	Left Touch	FCC #1	QPSK	50	0	1:1	0.037	1.019	0.038	
1770.0	132572	LTE B66	20	24.50	24.44	0.030	0	Right Touch	FCC #1	QPSK	1	0	1:1	0.080	1.014	**0.081**	A12
1770.0	132572	LTE B66	20	23.50	23.42	-0.160	1	Right Touch	FCC #1	QPSK	50	0	1:1	0.070	1.019	0.071	
1770.0	132572	LTE B66	20	24.50	24.44	-0.020	0	Left Tilt	FCC #1	QPSK	1	0	1:1	0.025	1.014	0.025	
1770.0	132572	LTE B66	20	23.50	23.42	0.000	1	Left Tilt	FCC #1	QPSK	50	0	1:1	0.024	1.019	0.024	
1770.0	132572	LTE B66	20	24.50	24.44	-0.100	0	Right Tilt	FCC #1	QPSK	1	0	1:1	0.016	1.014	0.016	
1770.0	132572	LTE B66	20	23.50	23.42	-0.190	1	Right Tilt	FCC #1	QPSK	50	0	1:1	0.013	1.019	0.013	
1770.0	132572	LTE B66	20	24.50	24.44	-0.000	0	Right Touch	FCC #1	QPSK	1	0	1:1	0.079	1.014	0.080	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.11 LTE Band 2 (PCS) Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
1860.0	18700	LTE B2	20	24.50	23.85	-0.080	0	Left Touch	FCC #1	QPSK	1	50	1:1	0.026	1.161	0.030	
1860.0	18700	LTE B2	20	23.50	22.97	0.000	1	Left Touch	FCC #1	QPSK	50	25	1:1	0.024	1.130	0.027	
1860.0	18700	LTE B2	20	24.50	23.85	0.160	0	Right Touch	FCC #1	QPSK	1	50	1:1	0.061	1.161	**0.071**	A13
1860.0	18700	LTE B2	20	23.50	22.97	0.100	1	Right Touch	FCC #1	QPSK	50	25	1:1	0.057	1.130	0.064	
1860.0	18700	LTE B2	20	24.50	23.85	0.170	0	Left Tilt	FCC #1	QPSK	1	50	1:1	0.013	1.161	0.015	
1860.0	18700	LTE B2	20	23.50	22.97	-0.160	1	Left Tilt	FCC #1	QPSK	50	25	1:1	0.007	1.130	0.008	
1860.0	18700	LTE B2	20	24.50	23.85	0.090	0	Right Tilt	FCC #1	QPSK	1	50	1:1	0.014	1.161	0.016	
1860.0	18700	LTE B2	20	23.50	22.97	-0.050	1	Right Tilt	FCC #1	QPSK	50	25	1:1	0.012	1.130	0.014	
1860.0	18700	LTE B2	20	24.50	23.85	-0.120	0	Right Touch	FCC #1	QPSK	1	50	1:1	0.059	1.161	0.068	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.12 LTE Band 7 Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
2560.0	21350	LTE B7	20	25.50	25.18	0.110	0	Left Touch	FCC #1	QPSK	1	0	1:1	0.165	1.076	0.178	
2560.0	21350	LTE B7	20	24.50	24.19	-0.020	1	Left Touch	FCC #1	QPSK	50	0	1:1	0.122	1.074	0.131	
2560.0	21350	LTE B7	20	25.50	25.18	0.160	0	Right Touch	FCC #1	QPSK	1	0	1:1	0.107	1.076	0.115	
2560.0	21350	LTE B7	20	24.50	24.19	0.120	1	Right Touch	FCC #1	QPSK	50	0	1:1	0.077	1.074	0.083	
2560.0	21350	LTE B7	20	25.50	25.18	-0.170	0	Left Tilt	FCC #1	QPSK	1	0	1:1	0.175	1.076	0.188	
2560.0	21350	LTE B7	20	24.50	24.19	-0.190	1	Left Tilt	FCC #1	QPSK	50	0	1:1	0.136	1.074	0.146	
2560.0	21350	LTE B7	20	25.50	25.18	0.050	0	Right Tilt	FCC #1	QPSK	1	0	1:1	0.202	1.076	**0.217**	A14
2560.0	21350	LTE B7	20	24.50	24.19	0.130	1	Right Tilt	FCC #1	QPSK	50	0	1:1	0.119	1.074	0.128	
2560.0	21350	LTE B7	20	25.50	25.18	0.140	0	Right Tilt	FCC #1	QPSK	1	0	1:1	0.202	1.076	0.217	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.13 LTE Band 41 Head SAR

MEASUREMENT RESULTS																	
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
2680.0	41490	LTE B41	20	24.20	24.19	0.020	0	Left Touch	FCC #1	QPSK	1	99	1:1	0.104	1.002	**0.104**	A15
2680.0	41490	LTE B41	20	23.20	23.09	-0.050	1	Left Touch	FCC #1	QPSK	50	50	1:1	0.066	1.026	0.068	
2680.0	41490	LTE B41	20	24.20	24.19	-0.130	0	Right Touch	FCC #1	QPSK	1	99	1:1	0.074	1.002	0.074	
2680.0	41490	LTE B41	20	23.20	23.09	0.060	1	Right Touch	FCC #1	QPSK	50	50	1:1	0.047	1.026	0.048	
2680.0	41490	LTE B41	20	24.20	24.19	-0.050	0	Left Tilt	FCC #1	QPSK	1	99	1:1	0.028	1.002	0.028	
2680.0	41490	LTE B41	20	23.20	23.09	-0.140	1	Left Tilt	FCC #1	QPSK	50	50	1:1	0.022	1.026	0.023	
2680.0	41490	LTE B41	20	24.20	24.19	0.130	0	Right Tilt	FCC #1	QPSK	1	99	1:1	0.066	1.002	0.066	
2680.0	41490	LTE B41	20	23.20	23.09	0.000	1	Right Tilt	FCC #1	QPSK	50	50	1:1	0.041	1.026	0.042	
2680.0	41490	LTE B41	20	24.20	24.19	0.020	0	Left Touch	FCC #1	QPSK	1	99	1:1	0.102	1.002	0.102	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Head 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.1.14 DTS Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.060	Left Touch	FCC #2	0.489	1	98.8	0.412	1.259	1.012	0.525	
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.040	Right Touch	FCC #2	0.753	1	98.8	0.761	1.259	1.012	0.970	
2437.0	6	802.11b (Ant.1)	18.50	17.30	0.050	Right Touch	FCC #2	0.618	1	98.8	0.607	1.318	1.012	0.810	
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.060	Left Tilt	FCC #2	0.492	1	98.8	0.492	1.259	1.012	0.627	
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.170	Right Tilt	FCC #2	0.955	1	98.8	0.842	1.259	1.012	**1.073**	A16
2437.0	6	802.11b (Ant.1)	18.50	17.30	0.030	Right Tilt	FCC #2	0.825	1	98.8	0.748	1.318	1.012	0.998	
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.050	Right Tilt	FCC #2	0.748	1	98.8	0.718	1.259	1.012	0.915	
2412.0	1	802.11b (Ant.1)	18.50	17.50	-0.070	Right Tilt	FCC #2	0.947	1	98.8	0.839	1.259	1.012	1.069	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.070	Left Touch	FCC #2	0.046	1	98.8	0.043	1.159	1.012	0.050	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.190	Right Touch	FCC #2	0.128	1	98.8	0.137	1.159	1.012	**0.161**	A17
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.110	Left Tilt	FCC #2	0.025	1	98.8	0.018	1.159	1.012	0.021	
2462.0	11	802.11b (Ant.2)	18.50	17.86	0.140	Right Tilt	FCC #2	0.053	1	98.8	0.048	1.159	1.012	0.056	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.100	Right Touch	FCC #2	0.126	1	98.8	0.135	1.159	1.012	0.158	
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.050	Left Touch	FCC #2	0.328	1	97.1	0.341	1.318	1.030	0.463	
2437.0	6	802.11g (MIMO)	21.00	20.07	-0.150	Right Touch	FCC #2	0.542	1	97.1	0.529	1.318	1.030	0.718	
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.170	Right Touch	FCC #2	0.699	1	97.1	0.692	1.318	1.030	0.939	
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.160	Left Tilt	FCC #2	0.393	1	97.1	0.387	1.318	1.030	0.525	
2437.0	6	802.11g (MIMO)	21.00	20.07	0.030	Right Tilt	FCC #2	0.540	1	97.1	0.545	1.318	1.030	0.740	
2462.0	11	802.11g (MIMO)	21.00	20.19	0.090	Right Tilt	FCC #2	0.722	1	97.1	0.694	1.318	1.030	**0.942**	A18
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.070	Right Tilt	FCC #2	0.611	1	97.1	0.573	1.318	1.030	0.778	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.
2. Yellow entries represent variability measurements.

Adjusted SAR results for OFDM SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR
MHz	Ch											
2412.0	1	802.11b (Ant.1)	DSSS	18.5	1.073	2437	802.11g	OFDM	18.0	0.891	**0.956**	X
2412.0	1	802.11b (Ant.1)	DSSS	18.5	1.073	2437	802.11n	OFDM	16.0	0.562	**0.603**	X
2412.0	1	802.11b (Ant.1)	DSSS	18.5	1.073	2437	802.11ac	OFDM	16.0	0.562	**0.603**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.161	2437	802.11g	OFDM	18.0	0.891	**0.143**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.161	2437	802.11n	OFDM	16.0	0.562	**0.090**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.161	2437	802.11ac	OFDM	16.0	0.562	**0.090**	X
2462.0	11	802.11g (MIMO)	OFDM	21.0	0.942	2437	802.11n	OFDM	19.0	0.631	**0.839**	X
2462.0	11	802.11g (MIMO)	OFDM	21.0	0.942	2437	802.11ac	OFDM	19.0	0.631	**0.594**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note: SAR is not required for the following 2.4 GHz OFDM conditions. 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.

Table 11.1.15 DTS Head SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
2412.0	1	802.11b (Ant.1)	15.50	15.13	0.010	Left Touch	FCC #2	0.202	1	98.8	0.223	1.089	1.012	0.246	
2412.0	1	802.11b (Ant.1)	15.50	15.13	0.190	Right Touch	FCC #2	0.424	1	98.8	0.414	1.089	1.012	0.456	
2412.0	1	802.11b (Ant.1)	15.50	15.13	-0.090	Left Tilt	FCC #2	0.255	1	98.8	0.245	1.089	1.012	0.270	
2412.0	1	802.11b (Ant.1)	15.50	15.13	-0.060	Right Tilt	FCC #2	0.497	1	98.8	0.458	1.089	1.012	**0.505**	A19
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. DTS was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 5 GHz Ant.2 WLAN was not transmitting during the above evaluations.

Adjusted SAR results for OFDM SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR
MHz	Ch											
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.505	2437	802.11g	OFDM	15.5	1.000	**0.505**	X
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.505	2437	802.11n	OFDM	15.5	1.000	**0.505**	X
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.505	2437	802.11ac	OFDM	15.5	1.000	**0.505**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note: SAR is not required for the following 2.4 GHz OFDM conditions. 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.

Table 11.1.16 UNII Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5260.0	52	802.11a (Ant.1)	16.50	16.44	0.070	Left Touch	FCC #2	0.328	6	97.1	0.335	1.014	1.030	0.350	
5260.0	52	802.11a (Ant.1)	16.50	16.44	-0.170	Right Touch	FCC #2	0.373	6	97.1	0.447	1.014	1.030	0.467	
5260.0	52	802.11a (Ant.1)	16.50	16.44	0.170	Left Tilt	FCC #2	0.294	6	97.1	0.304	1.014	1.030	0.317	
5260.0	52	802.11a (Ant.1)	16.50	16.44	0.070	Right Tilt	FCC #2	0.389	6	97.1	0.459	1.014	1.030	**0.479**	A20
5260.0	52	802.11a (Ant.1)	16.50	16.44	0.170	Right Tilt	FCC #2	0.384	6	97.1	0.452	1.014	1.030	0.472	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.008	Left Touch	FCC #2	0.401	6	97.1	0.452	1.119	1.030	0.521	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.000	Right Touch	FCC #2	0.448	6	97.1	0.471	1.119	1.030	**0.543**	A21
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.000	Left Tilt	FCC #2	0.085	6	97.1	0.048	1.119	1.030	0.055	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.000	Right Tilt	FCC #2	0.107	6	97.1	0.093	1.119	1.030	0.107	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.010	Right Touch	FCC #2	0.468	6	97.1	0.468	1.119	1.030	0.539	
5260.0	52	802.11a (MIMO)	19.50	19.24	0.020	Left Touch	FCC #2	0.451	6	97.1	0.532	1.119	1.030	**0.613**	A22
5260.0	52	802.11a (MIMO)	19.50	19.24	0.190	Right Touch	FCC #2	0.475	6	97.1	0.487	1.119	1.030	0.561	
5260.0	52	802.11a (MIMO)	19.50	19.24	0.160	Left Tilt	FCC #2	0.337	6	97.1	0.346	1.119	1.030	0.399	
5260.0	52	802.11a (MIMO)	19.50	19.24	0.130	Right Tilt	FCC #2	0.438	6	97.1	0.498	1.119	1.030	0.574	
5260.0	52	802.11a (MIMO)	19.50	19.24	-0.030	Left Touch	FCC #2	0.447	6	97.1	0.510	1.119	1.030	0.588	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Adjusted SAR results for UNII-1 and UNII-2A SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Adjusted Factor	1g Adjusted SAR (W/kg)	SAR for the band with lower maximum output power
MHz	Ch											
5260.0	52	802.11a (Ant.1)	OFDM	16.50	0.479	5220	802.11a	OFDM	16.50	1.000	**0.479**	X
5260.0	52	802.11a (Ant.2)	OFDM	16.50	0.543	5220	802.11a	OFDM	16.50	1.000	**0.543**	X
5260.0	52	802.11a (MIMO)	OFDM	19.50	0.613	5220	802.11a	OFDM	19.50	1.000	**0.613**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. U-NII-1 and U-NII-2A Bands: When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

Table 11.1.17 UNII Head SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	0.000	Left Touch	FCC #2	0.352	6	95.5	0.394	1.256	1.047	**0.518**	A23
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	0.000	Right Touch	FCC #2	0.395	6	95.5	0.392	1.256	1.047	0.516	
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	0.000	Left Tilt	FCC #2	0.055	6	95.5	0.035	1.256	1.047	0.046	
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	0.030	Right Tilt	FCC #2	0.038	6	95.5	0.034	1.256	1.047	0.045	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.

Adjusted SAR results for UNII-1 and UNII-2A SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Adjusted Factor	1g Adjusted SAR (W/kg)	SAR for the band with lower maximum output power
MHz	Ch											
5270.0	54	802.11n-HT40 (Ant.2)	OFDM	16.0	0.518	5230	802.11a	OFDM	16.0	1.000	**0.518**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. U-NII-1 and U-NII-2A Bands: When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

Table 11.1.18 UNII Head SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5660.0	132	802.11a (Ant.1)	16.50	16.41	0.160	Left Touch	FCC #2	0.538	6	97.1	0.537	1.021	1.030	**0.565**	A24
5660.0	132	802.11a (Ant.1)	16.50	16.41	0.180	Right Touch	FCC #2	0.309	6	97.1	0.378	1.021	1.030	0.397	
5660.0	132	802.11a (Ant.1)	16.50	16.41	-0.160	Left Tilt	FCC #2	0.347	6	97.1	0.394	1.021	1.030	0.414	
5660.0	132	802.11a (Ant.1)	16.50	16.41	-0.140	Right Tilt	FCC #2	0.333	6	97.1	0.386	1.021	1.030	0.406	
5660.0	132	802.11a (Ant.1)	16.50	16.41	-0.140	Left Touch	FCC #2	0.494	6	97.1	0.472	1.021	1.030	0.496	
5660.0	132	802.11a (Ant.2)	16.50	16.12	0.020	Left Touch	FCC #2	0.257	6	97.1	0.262	1.091	1.030	0.294	
5660.0	132	802.11a (Ant.2)	16.50	16.12	-0.180	Right Touch	FCC #2	0.497	6	97.1	0.489	1.091	1.030	**0.549**	A25
5660.0	132	802.11a (Ant.2)	16.50	16.12	0.050	Left Tilt	FCC #2	0.102	6	97.1	0.075	1.091	1.030	0.084	
5660.0	132	802.11a (Ant.2)	16.50	16.12	-0.030	Right Tilt	FCC #2	0.129	6	97.1	0.130	1.091	1.030	0.146	
5660.0	132	802.11a (Ant.2)	16.50	16.12	0.070	Right Touch	FCC #2	0.489	6	97.1	0.488	1.091	1.030	0.548	
5660.0	132	802.11a (MIMO)	19.50	19.28	0.060	Left Touch	FCC #2	0.510	6	97.1	0.512	1.091	1.030	0.575	
5660.0	132	802.11a (MIMO)	19.50	19.28	0.130	Right Touch	FCC #2	0.605	6	97.1	0.566	1.091	1.030	**0.636**	A26
5660.0	132	802.11a (MIMO)	19.50	19.28	0.160	Left Tilt	FCC #2	0.406	6	97.1	0.421	1.091	1.030	0.473	
5660.0	132	802.11a (MIMO)	19.50	19.28	0.160	Right Tilt	FCC #2	0.489	6	97.1	0.551	1.091	1.030	0.619	
5660.0	132	802.11a (MIMO)	19.50	19.28	0.180	Right Touch	FCC #2	0.583	6	97.1	0.565	1.091	1.030	0.635	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.140	Left Touch	FCC #2	0.550	6	97.1	0.529	1.012	1.030	0.551	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.180	Right Touch	FCC #2	0.813	6	97.1	1.050	1.012	1.030	**1.094**	A27
5825.0	165	802.11a (Ant.1)	16.50	16.44	-0.180	Right Touch	FCC #2	1.030	6	97.1	1.020	1.014	1.030	1.065	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.030	Left Tilt	FCC #2	0.415	6	97.1	0.443	1.012	1.030	0.462	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.140	Right Tilt	FCC #2	0.824	6	97.1	0.983	1.012	1.030	1.025	
5825.0	165	802.11a (Ant.1)	16.50	16.44	0.190	Right Tilt	FCC #2	0.692	6	97.1	0.955	1.014	1.030	0.997	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.180	Right Touch	FCC #2	0.661	6	97.1	0.973	1.012	1.030	1.014	
5785.0	157	802.11a (Ant.1)	16.50	16.45	-0.160	Right Touch	FCC #2	0.784	6	97.1	1.030	1.012	1.030	1.073	
5785.0	157	802.11a (Ant.2)	16.50	16.27	-0.180	Left Touch	FCC #2	0.174	6	97.1	0.193	1.054	1.030	0.209	
5785.0	157	802.11a (Ant.2)	16.50	16.27	0.000	Right Touch	FCC #2	0.491	6	97.1	0.559	1.054	1.030	**0.607**	A28
5785.0	157	802.11a (Ant.2)	16.50	16.27	-0.020	Left Tilt	FCC #2	0.074	6	97.1	0.055	1.054	1.030	0.060	
5785.0	157	802.11a (Ant.2)	16.50	16.27	0.170	Right Tilt	FCC #2	0.150	6	97.1	0.174	1.054	1.030	0.189	
5785.0	157	802.11a (Ant.2)	16.50	16.27	-0.080	Right Touch	FCC #2	0.502	6	97.1	0.554	1.054	1.030	0.601	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.170	Left Touch	FCC #2	0.533	6	97.1	0.532	1.054	1.030	0.577	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.130	Right Touch	FCC #2	0.996	6	97.1	1.060	1.054	1.030	1.151	
5825.0	165	802.11a (MIMO)	19.50	19.29	0.070	Right Touch	FCC #2	0.898	6	97.1	1.070	1.054	1.030	1.161	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.190	Left Tilt	FCC #2	0.425	6	97.1	0.458	1.054	1.030	0.497	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.190	Right Tilt	FCC #2	0.839	6	97.1	1.100	1.054	1.030	**1.194**	A29
5825.0	165	802.11a (MIMO)	19.50	19.29	0.190	Right Tilt	FCC #2	0.832	6	97.1	1.050	1.054	1.030	1.140	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.180	Right Tilt	FCC #2	0.943	6	97.1	0.936	1.054	1.030	1.016	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.120	Right Tilt	FCC #2	0.825	6	97.1	1.060	1.054	1.030	1.151	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. Blue entries represent SIM2(This is a SIM card that can be installed in place of a memory card.) measurements.
2. Yellow entries represent variability measurements.

Table 11.1.19 UNII Head SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode (Antenna)	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	0.120	Left Touch	FCC #2	0.198	6	95.5	0.178	1.288	1.047	0.240	
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	0.190	Right Touch	FCC #2	0.342	6	95.5	0.328	1.288	1.047	**0.442**	A30
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	-0.080	Left Tilt	FCC #2	0.076	6	95.5	0.054	1.288	1.047	0.073	
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	-0.120	Right Tilt	FCC #2	0.081	6	95.5	0.069	1.288	1.047	0.093	
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	-0.190	Left Touch	FCC #2	0.138	6	95.5	0.143	1.172	1.047	0.175	
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	-0.050	Right Touch	FCC #2	0.389	6	95.5	0.433	1.172	1.047	**0.531**	A31
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	0.160	Left Tilt	FCC #2	0.071	6	95.5	0.050	1.172	1.047	0.061	
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	-0.130	Right Tilt	FCC #2	0.101	6	95.5	0.083	1.172	1.047	0.102	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.

Table 11.1.20 Bluetooth Head SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Rate [Mbps]	Duty Cycle (%)	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch													
2441.0	39	Bluetooth	12.35	12.24	-0.010	Left Touch	FCC #2	1	76.8	0.058	1.026	1.302	0.077	
2441.0	39	Bluetooth	12.35	12.24	0.180	Right Touch	FCC #2	1	76.8	0.106	1.026	1.302	0.142	
2441.0	39	Bluetooth	12.35	12.24	0.060	Left Tilt	FCC #2	1	76.8	0.058	1.026	1.302	0.077	
2441.0	39	Bluetooth	12.35	12.24	0.060	Right Tilt	FCC #2	1	76.8	0.137	1.026	1.302	**0.183**	A32
2441.0	39	Bluetooth	12.35	12.24	0.150	Right Tilt	FCC #2	1	76.8	0.135	1.026	1.302	0.180	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Head 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

11.2 Standalone Body-Worn SAR Worn SAR Results

Table 11.2.1 GSM/PCS/GPRS/WCDMA Body-Worn SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/ Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Spacing [Side]	Device Serial Number	# of Time Slots	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch													
836.6	190	GSM850	GSM	33.70	33.20	0.020	10 mm [Front]	FCC #1	1	1:8.3	0.252	1.122	0.283	
836.6	190	GSM850	GSM	33.70	33.20	-0.000	10 mm [Rear]	FCC #1	1	1:8.3	0.295	1.122	**0.331**	A33
836.6	190	GSM850	GPRS	30.70	30.60	0.040	10 mm [Front]	FCC #1	3	1:2.77	0.344	1.023	0.352	
836.6	190	GSM850	GPRS	30.70	30.60	-0.040	10 mm [Rear]	FCC #1	3	1:2.77	0.438	1.023	**0.448**	A34
836.6	190	GSM850	GPRS	30.70	30.60	-0.000	10 mm [Rear]	FCC #1	3	1:2.77	0.410	1.023	0.419	
1880.0	661	PCS1900	PCS	30.70	30.70	0.060	10 mm [Front]	FCC #1	1	1:8.3	0.114	1.000	0.114	
1880.0	661	PCS1900	PCS	30.70	30.70	0.070	10 mm [Rear]	FCC #1	1	1:8.3	0.193	1.000	**0.193**	A35
1880.0	661	PCS1900	GPRS	27.70	27.70	0.060	10 mm [Front]	FCC #1	3	1:2.77	0.165	1.000	0.165	
1880.0	661	PCS1900	GPRS	27.70	27.70	-0.020	10 mm [Rear]	FCC #1	3	1:2.77	0.278	1.000	**0.278**	A36
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.010	10 mm [Front]	FCC #1	N/A	1:1	0.400	1.021	0.408	
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.000	10 mm [Rear]	FCC #1	N/A	1:1	0.432	1.021	**0.441**	A37
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.000	10 mm [Rear]	FCC #1	N/A	1:1	0.422	1.021	0.431	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	0.040	10 mm [Front]	FCC #1	N/A	1:1	0.327	1.054	0.345	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.000	10 mm [Rear]	FCC #1	N/A	1:1	0.530	1.054	**0.559**	A38
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.020	10 mm [Front]	FCC #1	N/A	1:1	0.297	1.054	0.313	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.010	10 mm [Rear]	FCC #1	N/A	1:1	0.481	1.054	**0.507**	A39
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.2.2 LTE B12, B13, B26, B5, B66 Body-Worn SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
707.5	23095	LTE B12	10	25.50	25.11	0.020	0	10 mm [Front]	FCC #1	QPSK	1	25	1:1	0.362	1.094	0.396	
707.5	23095	LTE B12	10	24.50	24.02	0.040	1	10 mm [Front]	FCC #1	QPSK	25	12	1:1	0.246	1.117	0.275	
707.5	23095	LTE B12	10	25.50	25.11	-0.000	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.381	1.094	**0.417**	A40
707.5	23095	LTE B12	10	24.50	24.02	-0.000	1	10 mm [Rear]	FCC #1	QPSK	25	12	1:1	0.267	1.117	0.298	
707.5	23095	LTE B12	10	25.50	25.11	-0.110	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.367	1.094	0.401	
782.0	23230	LTE B13	10	25.50	25.12	-0.010	0	10 mm [Front]	FCC #1	QPSK	1	25	1:1	0.279	1.091	0.304	
782.0	23230	LTE B13	10	24.50	24.03	0.000	1	10 mm [Front]	FCC #1	QPSK	25	12	1:1	0.243	1.114	0.271	
782.0	23230	LTE B13	10	25.50	25.12	-0.040	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.393	1.091	**0.429**	A41
782.0	23230	LTE B13	10	24.50	24.03	0.010	1	10 mm [Rear]	FCC #1	QPSK	25	12	1:1	0.261	1.114	0.291	
782.0	23230	LTE B13	10	25.50	25.12	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.372	1.091	0.406	
831.5	26865	LTE B26	15	25.50	25.07	-0.010	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.364	1.104	0.402	
831.5	26865	LTE B26	15	24.50	24.16	-0.000	1	10 mm [Front]	FCC #1	QPSK	25	0	1:1	0.285	1.081	0.308	
831.5	26865	LTE B26	15	25.50	25.07	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.407	1.104	**0.449**	A42
831.5	26865	LTE B26	15	24.50	24.16	-0.030	1	10 mm [Rear]	FCC #1	QPSK	25	0	1:1	0.311	1.081	0.336	
831.5	26865	LTE B26	15	25.50	25.07	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.399	1.104	0.440	
836.5	20525	LTE B5	10	25.50	24.97	-0.020	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.352	1.130	0.398	
836.5	20525	LTE B5	10	24.50	24.05	0.000	1	10 mm [Front]	FCC #1	QPSK	25	0	1:1	0.229	1.109	0.254	
836.5	20525	LTE B5	10	25.50	24.97	0.080	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.398	1.130	**0.450**	A43
836.5	20525	LTE B5	10	24.50	24.05	0.010	1	10 mm [Rear]	FCC #1	QPSK	25	0	1:1	0.262	1.109	0.291	
836.5	20525	LTE B5	10	25.50	24.97	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.395	1.130	0.446	
1770.0	132572	LTE B66	20	24.50	24.44	0.010	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.297	1.014	0.301	
1770.0	132572	LTE B66	20	23.50	23.42	0.010	1	10 mm [Front]	FCC #1	QPSK	50	0	1:1	0.291	1.019	0.297	
1770.0	132572	LTE B66	20	24.50	24.44	0.070	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.507	1.014	**0.514**	A44
1770.0	132572	LTE B66	20	23.50	23.42	-0.010	1	10 mm [Rear]	FCC #1	QPSK	50	0	1:1	0.476	1.019	0.485	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.2.3 LTE B2, B7, B41 Body-Worn SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
1860.0	18700	LTE B2	20	24.50	23.85	0.010	0	10 mm [Front]	FCC #1	QPSK	1	50	1:1	0.291	1.161	0.338	
1860.0	18700	LTE B2	20	23.50	22.97	-0.030	1	10 mm [Front]	FCC #1	QPSK	50	25	1:1	0.263	1.130	0.297	
1860.0	18700	LTE B2	20	24.50	23.85	0.000	0	10 mm [Rear]	FCC #1	QPSK	1	50	1:1	0.509	1.161	**0.591**	A45
1860.0	18700	LTE B2	20	23.50	22.97	0.010	1	10 mm [Rear]	FCC #1	QPSK	50	25	1:1	0.458	1.130	0.518	
2560.0	21350	LTE B7	20	25.50	25.18	0.120	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.374	1.076	0.402	
2560.0	21350	LTE B7	20	24.50	24.19	0.140	1	10 mm [Front]	FCC #1	QPSK	50	0	1:1	0.261	1.074	0.280	
2510.0	20850	LTE B7	20	25.50	25.01	0.040	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.708	1.119	0.792	
2535.0	21100	LTE B7	20	25.50	24.99	0.090	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.758	1.125	**0.853**	A46
2560.0	21350	LTE B7	20	25.50	25.18	-0.150	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.789	1.076	0.849	
2560.0	21350	LTE B7	20	24.50	24.19	-0.070	1	10 mm [Rear]	FCC #1	QPSK	50	0	1:1	0.601	1.074	0.645	
2560.0	21350	LTE B7	20	24.50	24.18	-0.100	1	10 mm [Rear]	FCC #1	QPSK	100	0	1:1	0.567	1.076	0.610	
2680.0	41490	LTE B41	20	24.20	24.19	0.120	0	10 mm [Front]	FCC #1	QPSK	1	99	1:1	0.180	1.002	0.180	
2680.0	41490	LTE B41	20	23.20	23.09	0.150	1	10 mm [Front]	FCC #1	QPSK	50	50	1:1	0.121	1.026	0.124	
2680.0	41490	LTE B41	20	24.20	24.19	0.020	0	10 mm [Rear]	FCC #1	QPSK	1	99	1:1	0.316	1.002	**0.317**	A47
2680.0	41490	LTE B41	20	23.20	23.09	0.020	1	10 mm [Rear]	FCC #1	QPSK	50	50	1:1	0.215	1.026	0.221	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram								

Table 11.2.4 DTS Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	SAR (W/kg)	Plots #
MHz	Ch														
2412.0	1	802.11b (Ant.1)	18.50	17.50	-0.190	10 mm [Front]	FCC #2	0.102	1	98.8	0.096	1.259	1.012	0.122	
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.100	10 mm [Rear]	FCC #2	0.248	1	98.8	0.238	1.259	1.012	**0.303**	A48
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.170	10 mm [Rear]	FCC #2	0.209	1	98.8	0.198	1.259	1.012	0.252	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.110	10 mm [Front]	FCC #2	0.010	1	98.8	0.010	1.159	1.012	0.012	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.040	10 mm [Rear]	FCC #2	0.101	1	98.8	0.104	1.159	1.012	**0.122**	A49
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.190	10 mm [Rear]	FCC #2	0.093	1	98.8	0.102	1.159	1.012	0.120	
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.160	10 mm [Front]	FCC #2	0.097	1	97.1	0.099	1.259	1.030	0.128	
2462.0	11	802.11g (MIMO)	21.00	20.19	0.140	10 mm [Rear]	FCC #2	0.300	1	97.1	0.311	1.259	1.030	**0.403**	A50
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.040	10 mm [Rear]	FCC #2	0.241	1	97.1	0.239	1.259	1.030	0.310	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure											Body 1.6 W/kg (mW/g) averaged over 1 gram				

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Adjusted SAR results for OFDM SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR
MHz	Ch											
2412.0	1	802.11b (Ant.1)	DSSS	18.5	0.303	2437	802.11g	OFDM	18.0	0.891	**0.270**	X
2412.0	1	802.11b (Ant.1)	DSSS	18.5	0.303	2437	802.11n	OFDM	16.0	0.562	**0.170**	X
2412.0	1	802.11b (Ant.1)	DSSS	18.5	0.303	2437	802.11ac	OFDM	16.0	0.562	**0.170**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.122	2437	802.11g	OFDM	18.0	0.891	**0.109**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.122	2437	802.11n	OFDM	16.0	0.562	**0.069**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.122	2437	802.11ac	OFDM	16.0	0.562	**0.069**	X
2462.0	11	802.11g (MIMO)	OFDM	21.0	0.403	2437	802.11n	OFDM	19.0	0.631	**0.254**	X
2462.0	11	802.11g (MIMO)	OFDM	21.0	0.403	2437	802.11ac	OFDM	19.0	0.631	**0.254**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note: SAR is not required for the following 2.4 GHz OFDM conditions. 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.

Table 11.2.5 DTS Body-Worn SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	SAR (W/kg)	Plots #
MHz	Ch														
2412.0	1	802.11b (Ant.1)	15.50	15.13	0.060	10 mm [Front]	FCC #2	0.058	1	98.8	0.059	1.089	1.012	0.065	
2412.0	1	802.11b (Ant.1)	15.50	15.13	-0.070	10 mm [Rear]	FCC #2	0.111	1	98.8	0.109	1.089	1.012	**0.120**	A51
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure											Body 1.6 W/kg (mW/g) averaged over 1 gram				

Note(s):
1. DTS was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 5 GHz Ant.2 WLAN was not transmitting during the above evaluations.

Adjusted SAR results for OFDM SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR
MHz	Ch											
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.120	2437	802.11g	OFDM	15.5	1.000	**0.120**	X
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.120	2437	802.11n	OFDM	15.5	1.000	**0.120**	X
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.120	2437	802.11ac	OFDM	15.5	1.000	**0.120**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note: SAR is not required for the following 2.4 GHz OFDM conditions. 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.

Table 11.2.6 UNII Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5260.0	52	802.11a (Ant.1)	16.50	16.44	0.060	10 mm [Front]	FCC #2	0.085	6	97.1	0.080	1.014	1.030	0.084	
5260.0	52	802.11a (Ant.1)	16.50	16.44	-0.110	10 mm [Rear]	FCC #2	0.282	6	97.1	0.287	1.014	1.030	**0.300**	A52
5260.0	52	802.11a (Ant.1)	16.50	16.44	-0.140	10 mm [Rear]	FCC #2	0.219	6	97.1	0.243	1.014	1.030	0.254	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.070	10 mm [Front]	FCC #2	0.139	6	97.1	0.138	1.119	1.030	0.159	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.050	10 mm [Rear]	FCC #2	0.229	6	97.1	0.229	1.119	1.030	**0.264**	A53
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.000	10 mm [Rear]	FCC #2	0.168	6	97.1	0.203	1.119	1.030	0.234	
5260.0	52	802.11a (MIMO)	19.50	19.24	0.040	10 mm [Front]	FCC #2	0.143	6	97.1	0.149	1.119	1.030	0.172	
5260.0	52	802.11a (MIMO)	19.50	19.24	-0.020	10 mm [Rear]	FCC #2	0.263	6	97.1	0.279	1.119	1.030	**0.322**	A54
5260.0	52	802.11a (MIMO)	19.50	19.24	-0.160	10 mm [Rear]	FCC #2	0.259	6	97.1	0.277	1.119	1.030	0.319	
ANSI / IEEE C95.1-2005– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								**Body 1.6 W/kg (mW/g) averaged over 1 gram**							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Adjusted SAR results for UNII-1 and UNII-2A SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Adjusted Factor	1g Adjusted SAR (W/kg)	SAR for the band with lower maximum output power
MHz	Ch											
5260.0	52	802.11a (Ant.1)	OFDM	16.50	0.300	5220	802.11a	OFDM	16.50	1.000	**0.300**	X
5260.0	52	802.11a (Ant.2)	OFDM	16.50	0.264	5220	802.11a	OFDM	16.50	1.000	**0.264**	X
5260.0	52	802.11a (MIMO)	OFDM	19.50	0.322	5220	802.11a	OFDM	19.50	1.000	**0.322**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						**Body 1.6 W/kg (mW/g) averaged over 1 gram**						

Note(s):
1. U-NII-1 and U-NII-2A Bands: When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

Table 11.2.7 UNII Body-Worn SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	-0.030	10 mm [Front]	FCC #2	0.097	6	95.5	0.101	1.256	1.047	0.133	
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	0.070	10 mm [Rear]	FCC #2	0.153	6	95.5	0.148	1.256	1.047	**0.195**	A55
ANSI / IEEE C95.1-2005– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								**Body 1.6 W/kg (mW/g) averaged over 1 gram**							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.

Adjusted SAR results for UNII-1 and UNII-2A SAR												
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Adjusted Factor	1g Adjusted SAR (W/kg)	SAR for the band with lower maximum output power
MHz	Ch											
5270.0	54	802.11n-HT40 (Ant.2)	OFDM	16.0	0.195	5230	802.11a	OFDM	16.0	1.000	**0.195**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						**Body 1.6 W/kg (mW/g) averaged over 1 gram**						

Note(s):
1. U-NII-1 and U-NII-2A Bands: When different maximum output power is specified for the bands, begin SAR measurement in the band with higher specified maximum output power. The highest reported SAR for the tested configuration is adjusted by the ratio of lower to higher specified maximum output power for the two bands. When the adjusted SAR is ≤ 1.2 W/kg, SAR is not required for the band with lower maximum output power in that test configuration.

Table 11.2.8 UNII Body-Worn SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5660.0	132	802.11a (Ant.1)	16.50	16.41	-0.030	10 mm [Front]	FCC #2	0.141	6	97.1	0.148	1.021	1.030	0.156	
5660.0	132	802.11a (Ant.1)	16.50	16.41	0.130	10 mm [Rear]	FCC #2	0.333	6	97.1	0.320	1.021	1.030	**0.336**	A56
5660.0	132	802.11a (Ant.1)	16.50	16.41	0.160	10 mm [Rear]	FCC #2	0.277	6	97.1	0.275	1.021	1.030	0.289	
5660.0	132	802.11a (Ant.2)	16.50	16.12	-0.020	10 mm [Front]	FCC #2	0.139	6	97.1	0.135	1.091	1.030	0.152	
5660.0	132	802.11a (Ant.2)	16.50	16.12	0.040	10 mm [Rear]	FCC #2	0.291	6	97.1	0.292	1.091	1.030	**0.328**	A57
5660.0	132	802.11a (Ant.2)	16.50	16.12	-0.080	10 mm [Rear]	FCC #2	0.235	6	97.1	0.277	1.091	1.030	0.311	
5660.0	132	802.11a (MIMO)	19.50	19.28	0.030	10 mm [Front]	FCC #2	0.267	6	97.1	0.279	1.091	1.030	0.313	
5660.0	132	802.11a (MIMO)	19.50	19.28	-0.110	10 mm [Rear]	FCC #2	0.450	6	97.1	0.386	1.091	1.030	**0.434**	A58
5660.0	132	802.11a (MIMO)	19.50	19.28	-0.010	10 mm [Rear]	FCC #2	0.326	6	97.1	0.384	1.091	1.030	0.431	
5785.0	157	802.11a (Ant.1)	16.50	16.45	-0.100	10 mm [Front]	FCC #2	0.169	6	97.1	0.165	1.012	1.030	0.172	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.100	10 mm [Rear]	FCC #2	0.294	6	97.1	0.322	1.012	1.030	**0.336**	A59
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.150	10 mm [Rear]	FCC #2	0.265	6	97.1	0.285	1.012	1.030	0.297	
5785.0	157	802.11a (Ant.2)	16.50	16.27	-0.030	10 mm [Front]	FCC #2	0.107	6	97.1	0.088	1.054	1.030	0.096	
5785.0	157	802.11a (Ant.2)	16.50	16.27	0.050	10 mm [Rear]	FCC #2	0.265	6	97.1	0.263	1.054	1.030	**0.285**	A60
5785.0	157	802.11a (Ant.2)	16.50	16.27	0.140	10 mm [Rear]	FCC #2	0.168	6	97.1	0.223	1.054	1.030	0.242	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.060	10 mm [Front]	FCC #2	0.227	6	97.1	0.247	1.054	1.030	0.268	
5785.0	157	802.11a (MIMO)	19.50	19.37	-0.000	10 mm [Rear]	FCC #2	0.335	6	97.1	0.332	1.054	1.030	**0.360**	A61
5785.0	157	802.11a (MIMO)	19.50	19.37	0.140	10 mm [Rear]	FCC #2	0.282	6	97.1	0.307	1.054	1.030	0.333	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.2.9 UNII Body-Worn SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	-0.110	10 mm [Front]	FCC #2	0.063	6	95.5	0.061	1.288	1.047	0.082	
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	0.110	10 mm [Rear]	FCC #2	0.261	6	95.5	0.263	1.288	1.047	**0.355**	A62
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	0.050	10 mm [Front]	FCC #2	0.091	6	95.5	0.070	1.172	1.047	0.086	
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	0.110	10 mm [Rear]	FCC #2	0.175	6	95.5	0.161	1.172	1.047	**0.198**	A63
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.

Table 11.2.10 Bluetooth Body-Worn SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Rate [Mbps]	Duty Cycle (%)	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch													
2441.0	39	Bluetooth	12.35	12.24	0.160	10 mm [Front]	FCC #2	1	76.8	0.023	1.026	1.302	0.031	
2441.0	39	Bluetooth	12.35	12.24	0.160	10 mm [Rear]	FCC #2	1	76.8	0.036	1.026	1.302	**0.048**	A64
2441.0	39	Bluetooth	12.35	12.24	-0.080	10 mm [Rear]	FCC #2	1	76.8	0.035	1.026	1.302	0.047	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

11.3 Standalone Hotspot SAR Results

Table 11.3.1 GPRS/WCDMA Hotspot SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode/ Band	Service	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Spacing [Side]	Device Serial Number	# of Time Slots	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch													
836.6	190	GSM850	GPRS	30.70	30.60	0.070	10 mm [Bottom]	FCC #1	3	1:2.77	0.225	1.023	0.230	
836.6	190	GSM850	GPRS	30.70	30.60	0.040	10 mm [Front]	FCC #1	3	1:2.77	0.344	1.023	0.352	
836.6	190	GSM850	GPRS	30.70	30.60	-0.040	10 mm [Rear]	FCC #1	3	1:2.77	0.438	1.023	**0.448**	A34
836.6	190	GSM850	GPRS	30.70	30.60	-0.040	10 mm [Right]	FCC #1	3	1:2.77	0.177	1.023	0.181	
836.6	190	GSM850	GPRS	30.70	30.60	-0.000	10 mm [Rear]	FCC #1	3	1:2.77	0.410	1.023	0.419	
1880.0	661	PCS1900	GPRS	27.70	27.70	0.070	10 mm [Bottom]	FCC #1	3	1:2.77	0.315	1.000	**0.315**	A65
1880.0	661	PCS1900	GPRS	27.70	27.70	0.060	10 mm [Front]	FCC #1	3	1:2.77	0.165	1.000	0.165	
1880.0	661	PCS1900	GPRS	27.70	27.70	-0.020	10 mm [Rear]	FCC #1	3	1:2.77	0.278	1.000	0.278	
1880.0	661	PCS1900	GPRS	27.70	27.70	-0.010	10 mm [Left]	FCC #1	3	1:2.77	0.107	1.000	0.107	
1880.0	661	PCS1900	GPRS	27.70	27.70	0.180	10 mm [Bottom]	FCC #1	3	1:2.77	0.302	1.000	0.302	
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.020	10 mm [Bottom]	FCC #1	N/A	1:1	0.227	1.021	0.232	
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.010	10 mm [Front]	FCC #1	N/A	1:1	0.400	1.021	0.408	
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.000	10 mm [Rear]	FCC #1	N/A	1:1	0.432	1.021	**0.441**	A37
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.010	10 mm [Right]	FCC #1	N/A	1:1	0.147	1.021	0.150	
836.6	4183	WCDMA 850	RMC	25.50	25.41	-0.000	10 mm [Rear]	FCC #1	N/A	1:1	0.422	1.021	0.431	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	0.020	10 mm [Bottom]	FCC #1	N/A	1:1	0.663	1.054	**0.699**	A66
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	0.040	10 mm [Front]	FCC #1	N/A	1:1	0.327	1.054	0.345	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.000	10 mm [Rear]	FCC #1	N/A	1:1	0.530	1.054	0.559	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	-0.060	10 mm [Left]	FCC #1	N/A	1:1	0.298	1.054	0.314	
1732.4	1412	WCDMA 1700	RMC	25.50	25.27	0.030	10 mm [Bottom]	FCC #1	N/A	1:1	0.655	1.054	0.690	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.020	10 mm [Bottom]	FCC #1	N/A	1:1	0.610	1.054	**0.643**	A67
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.020	10 mm [Front]	FCC #1	N/A	1:1	0.297	1.054	0.313	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.010	10 mm [Rear]	FCC #1	N/A	1:1	0.481	1.054	0.507	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	-0.030	10 mm [Left]	FCC #1	N/A	1:1	0.180	1.054	0.190	
1880.0	9400	WCDMA 1900	RMC	25.50	25.27	0.010	10 mm [Bottom]	FCC #1	N/A	1:1	0.583	1.054	0.614	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.3.2 LTE B12, B13, B26, B5 Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
707.5	23095	LTE B12	10	25.50	25.11	-0.010	0	10 mm [Bottom]	FCC #1	QPSK	1	25	1:1	0.110	1.094	0.120	
707.5	23095	LTE B12	10	24.50	24.02	-0.020	1	10 mm [Bottom]	FCC #1	QPSK	25	12	1:1	0.081	1.117	0.090	
707.5	23095	LTE B12	10	25.50	25.11	0.020	0	10 mm [Front]	FCC #1	QPSK	1	25	1:1	0.362	1.094	0.396	
707.5	23095	LTE B12	10	24.50	24.02	0.040	1	10 mm [Front]	FCC #1	QPSK	25	12	1:1	0.246	1.117	0.275	
707.5	23095	LTE B12	10	25.50	25.11	-0.000	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.381	1.094	**0.417**	A40
707.5	23095	LTE B12	10	24.50	24.02	-0.000	1	10 mm [Rear]	FCC #1	QPSK	25	12	1:1	0.267	1.117	0.298	
707.5	23095	LTE B12	10	25.50	25.11	-0.010	0	10 mm [Right]	FCC #1	QPSK	1	25	1:1	0.361	1.094	0.395	
707.5	23095	LTE B12	10	24.50	24.02	0.000	1	10 mm [Right]	FCC #1	QPSK	25	12	1:1	0.229	1.117	0.256	
707.5	23095	LTE B12	10	25.50	25.11	-0.110	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.367	1.094	0.401	
782.0	23230	LTE B13	10	25.50	25.12	0.070	0	10 mm [Bottom]	FCC #1	QPSK	1	25	1:1	0.149	1.091	0.163	
782.0	23230	LTE B13	10	24.50	24.03	-0.020	1	10 mm [Bottom]	FCC #1	QPSK	25	12	1:1	0.095	1.114	0.106	
782.0	23230	LTE B13	10	25.50	25.12	-0.010	0	10 mm [Front]	FCC #1	QPSK	1	25	1:1	0.279	1.091	0.304	
782.0	23230	LTE B13	10	24.50	24.03	0.000	1	10 mm [Front]	FCC #1	QPSK	25	12	1:1	0.243	1.114	0.271	
782.0	23230	LTE B13	10	25.50	25.12	-0.040	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.393	1.091	**0.429**	A41
782.0	23230	LTE B13	10	24.50	24.03	0.010	1	10 mm [Rear]	FCC #1	QPSK	25	12	1:1	0.261	1.114	0.291	
782.0	23230	LTE B13	10	25.50	25.12	0.000	0	10 mm [Right]	FCC #1	QPSK	1	25	1:1	0.356	1.091	0.388	
782.0	23230	LTE B13	10	24.50	24.03	0.030	1	10 mm [Right]	FCC #1	QPSK	25	12	1:1	0.228	1.114	0.254	
782.0	23230	LTE B13	10	25.50	25.12	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	25	1:1	0.372	1.091	0.406	
831.5	26865	LTE B26	15	25.50	25.07	-0.020	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.217	1.104	0.240	
831.5	26865	LTE B26	15	24.50	24.16	0.100	1	10 mm [Bottom]	FCC #1	QPSK	25	0	1:1	0.169	1.081	0.183	
831.5	26865	LTE B26	15	25.50	25.07	-0.010	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.364	1.104	0.402	
831.5	26865	LTE B26	15	24.50	24.16	-0.000	1	10 mm [Front]	FCC #1	QPSK	25	0	1:1	0.285	1.081	0.308	
831.5	26865	LTE B26	15	25.50	25.07	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.407	1.104	**0.449**	A42
831.5	26865	LTE B26	15	24.50	24.16	-0.030	1	10 mm [Rear]	FCC #1	QPSK	25	0	1:1	0.311	1.081	0.336	
831.5	26865	LTE B26	15	25.50	25.07	-0.010	0	10 mm [Right]	FCC #1	QPSK	1	0	1:1	0.146	1.104	0.161	
831.5	26865	LTE B26	15	24.50	24.16	-0.010	1	10 mm [Right]	FCC #1	QPSK	25	0	1:1	0.109	1.081	0.118	
831.5	26865	LTE B26	15	25.50	25.07	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.399	1.104	0.440	
836.5	20525	LTE B5	10	25.50	24.97	-0.090	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.193	1.130	0.218	
836.5	20525	LTE B5	10	24.50	24.05	-0.020	1	10 mm [Bottom]	FCC #1	QPSK	25	0	1:1	0.125	1.109	0.139	
836.5	20525	LTE B5	10	25.50	24.97	-0.020	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.352	1.130	0.398	
836.5	20525	LTE B5	10	24.50	24.05	0.000	1	10 mm [Front]	FCC #1	QPSK	25	0	1:1	0.229	1.109	0.254	
836.5	20525	LTE B5	10	25.50	24.97	0.080	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.398	1.130	**0.450**	A43
836.5	20525	LTE B5	10	24.50	24.05	0.010	1	10 mm [Rear]	FCC #1	QPSK	25	0	1:1	0.262	1.109	0.291	
836.5	20525	LTE B5	10	25.50	24.97	-0.080	0	10 mm [Right]	FCC #1	QPSK	1	0	1:1	0.122	1.130	0.138	
836.5	20525	LTE B5	10	24.50	24.05	-0.010	1	10 mm [Right]	FCC #1	QPSK	25	0	1:1	0.088	1.109	0.098	
836.5	20525	LTE B5	10	25.50	24.97	-0.020	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.395	1.130	0.446	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.3.3 LTE B66 Hotspot SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
1770.0	132572	LTE B66	20	24.50	24.44	0.070	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.662	1.014	**0.671**	A68
1770.0	132572	LTE B66	20	23.50	23.42	0.000	1	10 mm [Bottom]	FCC #1	QPSK	50	0	1:1	0.608	1.019	0.620	
1770.0	132572	LTE B66	20	24.50	24.44	0.010	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.297	1.014	0.301	
1770.0	132572	LTE B66	20	23.50	23.42	0.010	1	10 mm [Front]	FCC #1	QPSK	50	0	1:1	0.291	1.019	0.297	
1770.0	132572	LTE B66	20	24.50	24.44	0.070	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.507	1.014	0.514	
1770.0	132572	LTE B66	20	23.50	23.42	-0.010	1	10 mm [Rear]	FCC #1	QPSK	50	0	1:1	0.476	1.019	0.485	
1770.0	132572	LTE B66	20	24.50	24.44	-0.080	0	10 mm [Left]	FCC #1	QPSK	1	0	1:1	0.224	1.014	0.227	
1770.0	132572	LTE B66	20	23.50	23.42	0.080	1	10 mm [Left]	FCC #1	QPSK	50	0	1:1	0.195	1.019	0.199	
1770.0	132572	LTE B66	20	24.50	24.44	0.010	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.626	1.014	0.635	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.3.4 LTE B2 Hotspot SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
1860.0	18700	LTE B2	20	24.50	23.85	0.060	0	10 mm [Bottom]	FCC #1	QPSK	1	50	1:1	0.602	1.161	**0.699**	A69
1860.0	18700	LTE B2	20	23.50	22.97	-0.020	1	10 mm [Bottom]	FCC #1	QPSK	50	25	1:1	0.524	1.130	0.592	
1860.0	18700	LTE B2	20	24.50	23.85	0.010	0	10 mm [Front]	FCC #1	QPSK	1	50	1:1	0.291	1.161	0.338	
1860.0	18700	LTE B2	20	23.50	22.97	-0.030	1	10 mm [Front]	FCC #1	QPSK	50	25	1:1	0.263	1.130	0.297	
1860.0	18700	LTE B2	20	24.50	23.85	0.000	0	10 mm [Rear]	FCC #1	QPSK	1	50	1:1	0.509	1.161	0.591	
1860.0	18700	LTE B2	20	23.50	22.97	0.010	1	10 mm [Rear]	FCC #1	QPSK	50	25	1:1	0.458	1.130	0.518	
1860.0	18700	LTE B2	20	24.50	23.85	-0.070	0	10 mm [Left]	FCC #1	QPSK	1	50	1:1	0.169	1.161	0.196	
1860.0	18700	LTE B2	20	23.50	22.97	-0.020	1	10 mm [Left]	FCC #1	QPSK	50	25	1:1	0.155	1.130	0.175	
1860.0	18700	LTE B2	20	24.50	23.85	0.010	0	10 mm [Bottom]	FCC #1	QPSK	1	50	1:1	0.563	1.161	0.654	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.3.5 LTE B7 Hotspot SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
2510.0	20850	LTE B7	20	25.50	25.01	0.180	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.499	1.119	0.558	
2535.0	21100	LTE B7	20	25.50	24.99	0.150	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.656	1.125	0.738	
2560.0	21350	LTE B7	20	25.50	25.18	-0.130	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.801	1.076	**0.862**	A70
2560.0	21350	LTE B7	20	24.50	24.19	-0.190	1	10 mm [Bottom]	FCC #1	QPSK	50	0	1:1	0.591	1.074	0.635	
2560.0	21350	LTE B7	20	24.50	24.18	0.150	1	10 mm [Bottom]	FCC #1	QPSK	100	0	1:1	0.583	1.076	0.627	
2560.0	21350	LTE B7	20	25.50	25.18	0.120	0	10 mm [Front]	FCC #1	QPSK	1	0	1:1	0.374	1.076	0.402	
2560.0	21350	LTE B7	20	24.50	24.19	0.140	1	10 mm [Front]	FCC #1	QPSK	50	0	1:1	0.261	1.074	0.280	
2510.0	20850	LTE B7	20	25.50	25.01	0.040	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.708	1.119	0.792	
2535.0	21100	LTE B7	20	25.50	24.99	0.090	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.758	1.125	0.853	
2560.0	21350	LTE B7	20	25.50	25.18	-0.150	0	10 mm [Rear]	FCC #1	QPSK	1	0	1:1	0.789	1.076	0.849	
2560.0	21350	LTE B7	20	24.50	24.19	-0.070	1	10 mm [Rear]	FCC #1	QPSK	50	0	1:1	0.601	1.074	0.645	
2560.0	21350	LTE B7	20	24.50	24.18	-0.100	1	10 mm [Rear]	FCC #1	QPSK	100	0	1:1	0.567	1.076	0.610	
2560.0	21350	LTE B7	20	25.50	25.18	-0.080	0	10 mm [Left]	FCC #1	QPSK	1	0	1:1	0.090	1.076	0.097	
2560.0	21350	LTE B7	20	24.50	24.19	-0.130	1	10 mm [Left]	FCC #1	QPSK	50	0	1:1	0.088	1.074	0.095	
2560.0	21350	LTE B7	20	25.50	25.18	-0.130	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.777	1.076	0.836	
2560.0	21350	LTE B7	20	25.50	25.18	-0.140	0	10 mm [Bottom]	FCC #1	QPSK	1	0	1:1	0.777	1.076	0.836	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.
2. Yellow entries represent variability measurements.

Table 11.3.6 LTE B41 Hotspot SAR

MEASUREMENT RESULTS																
FREQUENCY		Mode/ Band	BW [MHz]	Max Allowed Power [dBm]	Cond. PWR [dBm]	Drift Power [dB]	MPR	Position	Device Serial Number	Mod.	RB Size	RB Offs.	Duty Cycle	1g SAR (W/kg)	Scaling Factor	1g Scaled SAR (W/kg)	Plots #
MHz	Ch																
2680.0	41490	LTE B41	20	24.20	24.19	-0.110	0	10 mm [Bottom]	FCC #1	QPSK	1	99	1:1	0.395	1.002	**0.396**	A71
2680.0	41490	LTE B41	20	23.20	23.09	-0.130	1	10 mm [Bottom]	FCC #1	QPSK	50	50	1:1	0.270	1.026	0.277	
2680.0	41490	LTE B41	20	24.20	24.19	0.120	0	10 mm [Front]	FCC #1	QPSK	1	99	1:1	0.180	1.002	0.180	
2680.0	41490	LTE B41	20	23.20	23.09	0.150	1	10 mm [Front]	FCC #1	QPSK	50	50	1:1	0.121	1.026	0.124	
2680.0	41490	LTE B41	20	24.20	24.19	0.020	0	10 mm [Rear]	FCC #1	QPSK	1	99	1:1	0.316	1.002	0.317	
2680.0	41490	LTE B41	20	23.20	23.09	0.020	1	10 mm [Rear]	FCC #1	QPSK	50	50	1:1	0.215	1.026	0.221	
2680.0	41490	LTE B41	20	24.20	24.19	0.100	0	10 mm [Left]	FCC #1	QPSK	1	99	1:1	0.296	1.002	0.297	
2680.0	41490	LTE B41	20	23.20	23.09	0.110	1	10 mm [Left]	FCC #1	QPSK	50	50	1:1	0.200	1.026	0.205	
2680.0	41490	LTE B41	20	24.20	24.19	-0.140	0	10 mm [Bottom]	FCC #1	QPSK	1	99	1:1	0.394	1.002	0.395	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure									Body 1.6 W/kg (mW/g) averaged over 1 gram								

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.3.7 DTS Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	SAR (W/kg)	Plots #
MHz	Ch														
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.140	10 mm [Top]	FCC #2	0.157	1	98.8	0.161	1.259	1.012	0.205	
2412.0	1	802.11b (Ant.1)	18.50	17.50	-0.190	10 mm [Front]	FCC #2	0.102	1	98.8	0.096	1.259	1.012	0.122	
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.100	10 mm [Rear]	FCC #2	0.248	1	98.8	0.238	1.259	1.012	**0.303**	A48
2412.0	1	802.11b (Ant.1)	18.50	17.50	-0.190	10 mm [Left]	FCC #2	0.067	1	98.8	0.067	1.259	1.012	0.085	
2412.0	1	802.11b (Ant.1)	18.50	17.50	0.170	10 mm [Rear]	FCC #2	0.209	1	98.8	0.198	1.259	1.012	0.252	
2462.0	11	802.11b (Ant.2)	18.50	17.86	0.100	10 mm [Top]	FCC #2	0.005	1	98.8	0.004	1.159	1.012	0.005	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.110	10 mm [Front]	FCC #2	0.010	1	98.8	0.010	1.159	1.012	0.012	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.040	10 mm [Rear]	FCC #2	0.101	1	98.8	0.104	1.159	1.012	**0.122**	A49
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.120	10 mm [Left]	FCC #2	0.016	1	98.8	0.015	1.159	1.012	0.018	
2462.0	11	802.11b (Ant.2)	18.50	17.86	-0.190	10 mm [Rear]	FCC #2	0.093	1	98.8	0.102	1.159	1.012	0.120	
2462.0	11	802.11g (MIMO)	21.00	20.19	0.070	10 mm [Top]	FCC #2	0.132	1	97.1	0.151	1.259	1.030	0.196	
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.160	10 mm [Front]	FCC #2	0.097	1	97.1	0.099	1.259	1.030	0.128	
2462.0	11	802.11g (MIMO)	21.00	20.19	0.140	10 mm [Rear]	FCC #2	0.300	1	97.1	0.311	1.259	1.030	**0.403**	A50
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.170	10 mm [Left]	FCC #2	0.079	1	97.1	0.078	1.259	1.030	0.101	
2462.0	11	802.11g (MIMO)	21.00	20.19	-0.040	10 mm [Rear]	FCC #2	0.241	1	97.1	0.239	1.259	1.030	0.310	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Adjusted SAR results for OFDM SAR											
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR
MHz	Ch											
2412.0	1	802.11b (Ant.1)	DSSS	18.5	0.303	2437	802.11g	OFDM	18.0	0.891	**0.270**	X
2412.0	1	802.11b (Ant.1)	DSSS	18.5	0.303	2437	802.11n	OFDM	16.0	0.562	**0.170**	X
2412.0	1	802.11b (Ant.1)	DSSS	18.5	0.303	2437	802.11ac	OFDM	16.0	0.562	**0.170**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.122	2437	802.11g	OFDM	18.0	0.891	**0.109**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.122	2437	802.11n	OFDM	16.0	0.562	**0.069**	X
2462.0	11	802.11b (Ant.2)	DSSS	18.5	0.122	2437	802.11ac	OFDM	16.0	0.562	**0.069**	X
2462.0	11	802.11g (MIMO)	OFDM	21.0	0.403	2437	802.11n	OFDM	19.0	0.631	**0.254**	X
2462.0	11	802.11g (MIMO)	OFDM	21.0	0.403	2437	802.11ac	OFDM	19.0	0.631	**0.254**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note: SAR is not required for the following 2.4 GHz OFDM conditions. 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.

Table 11.3.8 DTS Hotspot SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	SAR (W/kg)	Plots #
MHz	Ch														
2412.0	1	802.11b (Ant.1)	15.50	15.13	0.170	10 mm [Top]	FCC #2	0.083	1	98.8	0.096	1.089	1.012	0.106	
2412.0	1	802.11b (Ant.1)	15.50	15.13	0.060	10 mm [Front]	FCC #2	0.058	1	98.8	0.059	1.089	1.012	0.065	
2412.0	1	802.11b (Ant.1)	15.50	15.13	-0.080	10 mm [Rear]	FCC #2	0.111	1	98.8	0.109	1.089	1.012	**0.120**	A51
2412.0	1	802.11b (Ant.1)	15.50	15.13	-0.180	10 mm [Left]	FCC #2	0.037	1	98.8	0.038	1.089	1.012	0.042	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. DTS was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 5 GHz Ant.2 WLAN was not transmitting during the above evaluations.

Adjusted SAR results for OFDM SAR											
FREQUENCY		Mode/ Antenna	Service	Maximum Allowed Power [dBm]	1g Scaled SAR (W/kg)	FREQUENCY [MHz]	Mode	Service	Maximum Allowed Power [dBm	Ratio of OFDM to DSSS	1g Adjusted SAR (W/kg)	Determine OFDM SAR
MHz	Ch											
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.120	2437	802.11g	OFDM	15.5	1.000	**0.120**	X
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.120	2437	802.11n	OFDM	15.5	1.000	**0.120**	X
2412.0	1	802.11b (Ant.1)	DSSS	15.5	0.120	2437	802.11ac	OFDM	15.5	1.000	**0.120**	X
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure						Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note: SAR is not required for the following 2.4 GHz OFDM conditions. 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.

Table 11.3.9 UNII Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5220.0	44	802.11a (Ant.1)	16.50	16.45	0.000	10 mm [Top]	FCC #2	0.151	6	97.1	0.098	1.012	1.030	0.102	
5220.0	44	802.11a (Ant.1)	16.50	16.45	-0.120	10 mm [Front]	FCC #2	0.080	6	97.1	0.083	1.012	1.030	0.087	
5220.0	44	802.11a (Ant.1)	16.50	16.45	-0.110	10 mm [Rear]	FCC #2	0.253	6	97.1	0.253	1.012	1.030	**0.264**	A72
5220.0	44	802.11a (Ant.1)	16.50	16.45	0.050	10 mm [Left]	FCC #2	0.059	6	97.1	0.041	1.012	1.030	0.043	
5220.0	44	802.11a (Ant.1)	16.50	16.45	-0.050	10 mm [Rear]	FCC #2	0.132	6	97.1	0.204	1.012	1.030	0.213	
5220.0	44	802.11a (Ant.2)	16.50	16.17	-0.150	10 mm [Top]	FCC #2	0.014	6	97.1	0.009	1.079	1.030	0.010	
5220.0	44	802.11a (Ant.2)	16.50	16.17	-0.080	10 mm [Front]	FCC #2	0.134	6	97.1	0.132	1.079	1.030	0.147	
5220.0	44	802.11a (Ant.2)	16.50	16.17	0.000	10 mm [Rear]	FCC #2	0.230	6	97.1	0.227	1.079	1.030	**0.252**	A73
5220.0	44	802.11a (Ant.2)	16.50	16.17	-0.190	10 mm [Left]	FCC #2	0.056	6	97.1	0.048	1.079	1.030	0.053	
5220.0	44	802.11a (Ant.2)	16.50	16.17	0.090	10 mm [Rear]	FCC #2	0.156	6	97.1	0.189	1.079	1.030	0.210	
5220.0	44	802.11a (MIMO)	19.50	19.32	0.000	10 mm [Top]	FCC #2	0.133	6	97.1	0.121	1.079	1.030	0.134	
5220.0	44	802.11a (MIMO)	19.50	19.32	-0.090	10 mm [Front]	FCC #2	0.141	6	97.1	0.131	1.079	1.030	0.146	
5220.0	44	802.11a (MIMO)	19.50	19.32	-0.010	10 mm [Rear]	FCC #2	0.247	6	97.1	0.255	1.079	1.030	**0.283**	A74
5220.0	44	802.11a (MIMO)	19.50	19.32	-0.030	10 mm [Left]	FCC #2	0.061	6	97.1	0.036	1.079	1.030	0.040	
5220.0	44	802.11a (MIMO)	19.50	19.32	-0.050	10 mm [Rear]	FCC #2	0.134	6	97.1	0.203	1.079	1.030	0.226	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.3.10 UNII Hotspot SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5230.0	46	802.11n-HT40 (Ant.2)	16.00	14.93	0.000	10 mm [Top]	FCC #2	0.012	6	95.5	0.008	1.279	1.047	0.011	
5230.0	46	802.11n-HT40 (Ant.2)	16.00	14.93	-0.130	10 mm [Front]	FCC #2	0.102	6	95.5	0.107	1.279	1.047	0.143	
5230.0	46	802.11n-HT40 (Ant.2)	16.00	14.93	-0.010	10 mm [Rear]	FCC #2	0.158	6	95.5	0.133	1.279	1.047	**0.178**	A75
5230.0	46	802.11n-HT40 (Ant.2)	16.00	14.93	-0.100	10 mm [Left]	FCC #2	0.032	6	95.5	0.028	1.279	1.047	0.037	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.

Table 11.3.11 UNII Hotspot SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5785.0	157	802.11a (Ant.1)	16.50	16.45	-0.100	10 mm [Top]	FCC #2	0.136	6	97.1	0.126	1.012	1.030	0.131	
5785.0	157	802.11a (Ant.1)	16.50	16.45	-0.100	10 mm [Front]	FCC #2	0.169	6	97.1	0.165	1.012	1.030	0.172	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.100	10 mm [Rear]	FCC #2	0.294	6	97.1	0.322	1.012	1.030	**0.336**	A59
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.140	10 mm [Left]	FCC #2	0.087	6	97.1	0.080	1.012	1.030	0.083	
5785.0	157	802.11a (Ant.1)	16.50	16.45	0.150	10 mm [Rear]	FCC #2	0.265	6	97.1	0.285	1.012	1.030	0.297	
5785.0	157	802.11a (Ant.2)	16.50	16.27	-0.140	10 mm [Top]	FCC #2	0.011	6	97.1	0.010	1.054	1.030	0.011	
5785.0	157	802.11a (Ant.2)	16.50	16.27	-0.030	10 mm [Front]	FCC #2	0.107	6	97.1	0.088	1.054	1.030	0.096	
5785.0	157	802.11a (Ant.2)	16.50	16.27	0.050	10 mm [Rear]	FCC #2	0.265	6	97.1	0.263	1.054	1.030	**0.285**	A60
5785.0	157	802.11a (Ant.2)	16.50	16.27	-0.150	10 mm [Left]	FCC #2	0.095	6	97.1	0.083	1.054	1.030	0.090	
5785.0	157	802.11a (Ant.2)	16.50	16.27	0.140	10 mm [Rear]	FCC #2	0.168	6	97.1	0.223	1.054	1.030	0.242	
5785.0	157	802.11a (MIMO)	19.50	19.37	-0.150	10 mm [Top]	FCC #2	0.098	6	97.1	0.078	1.054	1.030	0.085	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.060	10 mm [Front]	FCC #2	0.227	6	97.1	0.247	1.054	1.030	0.268	
5785.0	157	802.11a (MIMO)	19.50	19.37	-0.000	10 mm [Rear]	FCC #2	0.335	6	97.1	0.332	1.054	1.030	**0.360**	A61
5785.0	157	802.11a (MIMO)	19.50	19.37	-0.150	10 mm [Left]	FCC #2	0.068	6	97.1	0.053	1.054	1.030	0.058	
5785.0	157	802.11a (MIMO)	19.50	19.37	0.140	10 mm [Rear]	FCC #2	0.282	6	97.1	0.307	1.054	1.030	0.333	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.
2. UNII-3 Band CH 165(5825 MHz) is not support Hotspot mode as described on operational description, so other required CHs are tested.

Table 11.3.12 UNII Hotspot SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	-0.110	10 mm [Top]	FCC #2	0.014	6	95.5	0.007	1.172	1.047	0.009	
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	0.050	10 mm [Front]	FCC #2	0.091	6	95.5	0.070	1.172	1.047	0.086	
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	0.110	10 mm [Rear]	FCC #2	0.175	6	95.5	0.161	1.172	1.047	**0.198**	A63
5795.0	159	802.11n-HT40 (Ant.2)	16.00	15.31	-0.020	10 mm [Left]	FCC #2	0.041	6	95.5	0.028	1.172	1.047	0.034	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.
2. UNII-3 Band CH 165(5825 MHz) is not support Hotspot mode as described on operational description, so other required CHs are tested.

Table 11.3.13 Bluetooth Hotspot SAR

MEASUREMENT RESULTS														
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Rate [Mbps]	Duty Cycle (%)	1g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	1g Scaled SAR (W/kg)	Plots #
MHz	Ch													
2441.0	39	Bluetooth	12.35	12.24	-0.060	10 mm [Top]	FCC #2	1	76.8	0.023	1.026	1.302	0.031	
2441.0	39	Bluetooth	12.35	12.24	0.160	10 mm [Front]	FCC #2	1	76.8	0.023	1.026	1.302	0.031	
2441.0	39	Bluetooth	12.35	12.24	0.160	10 mm [Rear]	FCC #2	1	76.8	0.036	1.026	1.302	**0.048**	A64
2441.0	39	Bluetooth	12.35	12.24	-0.180	10 mm [Left]	FCC #2	1	76.8	0.007	1.026	1.302	0.009	
2441.0	39	Bluetooth	12.35	12.24	-0.080	10 mm [Rear]	FCC #2	1	76.8	0.035	1.026	1.302	0.047	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Body 1.6 W/kg (mW/g) averaged over 1 gram						

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

11.4 Standalone Phablet SAR Results

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required when Hotspot 1g SAR (scaled to maximum output power including tolerance) < 1.2 W/kg.

Table 11.4.1 UNII Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5260.0	52	802.11a (Ant.1)	16.50	16.44	0.160	0 mm [Top]	FCC #2	0.295	6	97.1	0.308	1.014	1.030	0.322	
5260.0	52	802.11a (Ant.1)	16.50	16.44	0.130	0 mm [Front]	FCC #2	0.381	6	97.1	0.380	1.014	1.030	0.397	
5260.0	52	802.11a (Ant.1)	16.50	16.44	-0.140	0 mm [Rear]	FCC #2	0.935	6	97.1	0.926	1.014	1.030	**0.967**	A76
5260.0	52	802.11a (Ant.1)	16.50	16.44	-0.140	0 mm [Left]	FCC #2	0.089	6	97.1	0.090	1.014	1.030	0.094	
5260.0	52	802.11a (Ant.1)	16.50	16.44	-0.060	0 mm [Rear]	FCC #2	0.785	6	97.1	0.825	1.014	1.030	0.862	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.010	0 mm [Top]	FCC #2	0.024	6	97.1	0.016	1.119	1.030	0.018	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.090	0 mm [Front]	FCC #2	0.414	6	97.1	0.381	1.119	1.030	0.439	
5260.0	52	802.11a (Ant.2)	16.50	16.01	0.150	0 mm [Rear]	FCC #2	0.571	6	97.1	0.579	1.119	1.030	**0.667**	A77
5260.0	52	802.11a (Ant.2)	16.50	16.01	-0.140	0 mm [Left]	FCC #2	0.119	6	97.1	0.128	1.119	1.030	0.148	
5260.0	52	802.11a (Ant.2)	16.50	16.01	-0.020	0 mm [Rear]	FCC #2	0.566	6	97.1	0.575	1.119	1.030	0.663	
5260.0	52	802.11a (MIMO)	19.50	19.24	0.100	0 mm [Top]	FCC #2	0.319	6	97.1	0.306	1.119	1.030	0.353	
5260.0	52	802.11a (MIMO)	19.50	19.24	-0.170	0 mm [Front]	FCC #2	0.484	6	97.1	0.420	1.119	1.030	0.484	
5260.0	52	802.11a (MIMO)	19.50	19.24	-0.050	0 mm [Rear]	FCC #2	0.769	6	97.1	0.928	1.119	1.030	**1.069**	A78
5260.0	52	802.11a (MIMO)	19.50	19.24	0.170	0 mm [Left]	FCC #2	0.129	6	97.1	0.136	1.119	1.030	0.157	
5260.0	52	802.11a (MIMO)	19.50	19.24	-0.050	0 mm [Rear]	FCC #2	0.635	6	97.1	0.873	1.119	1.030	1.006	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.4.2 UNII Phablet SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	-0.090	0 mm [Top]	FCC #2	0.019	6	95.5	0.013	1.256	1.047	0.017	
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	-0.110	0 mm [Front]	FCC #2	0.363	6	95.5	0.314	1.256	1.047	0.413	
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	-0.070	0 mm [Rear]	FCC #2	0.496	6	95.5	0.423	1.256	1.047	**0.556**	A79
5270.0	54	802.11n-HT40 (Ant.2)	16.00	15.01	-0.010	0 mm [Left]	FCC #2	0.104	6	95.5	0.103	1.256	1.047	0.135	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.

Table 11.4.3 UNII Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5660.0	132	802.11a (Ant.1)	16.50	16.41	-0.100	0 mm [Top]	FCC #2	0.633	6	97.1	0.595	1.021	1.019	0.619	
5660.0	132	802.11a (Ant.1)	16.50	16.41	0.120	0 mm [Front]	FCC #2	0.800	6	97.1	0.757	1.021	1.019	0.788	
5660.0	132	802.11a (Ant.1)	16.50	16.41	0.090	0 mm [Rear]	FCC #2	0.818	6	97.1	0.854	1.021	1.019	**0.889**	A80
5660.0	132	802.11a (Ant.1)	16.50	16.41	-0.060	0 mm [Left]	FCC #2	0.174	6	97.1	0.188	1.021	1.019	0.196	
5660.0	132	802.11a (Ant.1)	16.50	16.41	0.160	0 mm [Rear]	FCC #2	0.815	6	97.1	0.827	1.021	1.019	0.860	
5660.0	132	802.11a (Ant.2)	16.50	16.12	0.100	0 mm [Top]	FCC #2	0.021	6	97.1	0.016	1.091	1.019	0.018	
5660.0	132	802.11a (Ant.2)	16.50	16.12	-0.120	0 mm [Front]	FCC #2	0.446	6	97.1	0.437	1.091	1.019	0.486	
5660.0	132	802.11a (Ant.2)	16.50	16.12	-0.180	0 mm [Rear]	FCC #2	0.677	6	97.1	0.697	1.091	1.019	**0.775**	A81
5660.0	132	802.11a (Ant.2)	16.50	16.12	-0.150	0 mm [Left]	FCC #2	0.170	6	97.1	0.167	1.091	1.019	0.186	
5660.0	132	802.11a (Ant.2)	16.50	16.12	0.120	0 mm [Rear]	FCC #2	0.578	6	97.1	0.623	1.091	1.019	0.693	
5660.0	132	802.11a (MIMO)	19.50	19.28	-0.020	0 mm [Top]	FCC #2	0.605	6	97.1	0.592	1.091	1.019	0.658	
5660.0	132	802.11a (MIMO)	19.50	19.28	0.160	0 mm [Front]	FCC #2	0.947	6	97.1	0.840	1.091	1.019	0.934	
5660.0	132	802.11a (MIMO)	19.50	19.28	-0.020	0 mm [Rear]	FCC #2	1.160	6	97.1	1.050	1.091	1.019	**1.167**	A82
5660.0	132	802.11a (MIMO)	19.50	19.28	0.010	0 mm [Left]	FCC #2	0.169	6	97.1	0.173	1.091	1.019	0.192	
5660.0	132	802.11a (MIMO)	19.50	19.28	-0.080	0 mm [Rear]	FCC #2	1.070	6	97.1	0.988	1.091	1.019	1.098	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.

Table 11.4.4 UNII Phablet SAR (with 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN)

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	-0.050	0 mm [Top]	FCC #2	0.010	6	95.5	0.005	1.288	1.047	0.007	
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	-0.120	0 mm [Front]	FCC #2	0.347	6	95.5	0.344	1.288	1.047	0.464	
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	0.170	0 mm [Rear]	FCC #2	0.504	6	95.5	0.527	1.288	1.047	**0.711**	A83
5710.0	142	802.11n-HT40 (Ant.2)	16.00	14.90	0.190	0 mm [Left]	FCC #2	0.086	6	95.5	0.086	1.288	1.047	0.116	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram							

Note(s):
1. UNII was additionally evaluated at the maximum allowed output power during operations with simultaneous 2.4 GHz Ant.1 and 5 GHz Ant.2 WLAN. 2.4 GHz Ant.1 WLAN was not transmitting during the above evaluations.

Table 11.4.5 UNII Phablet SAR

MEASUREMENT RESULTS															
FREQUENCY		Mode	Maximum Allowed Power [dBm]	Conducted Power [dBm]	Drift Power [dB]	Phantom Position	Device Serial Number	Peak SAR of Area Scan	Data Rate [Mbps]	Duty Cycle	10g SAR (W/kg)	Scaling Factor	Scaling Factor (Duty Cycle)	10g Scaled SAR (W/kg)	Plots #
MHz	Ch														
5825.0	165	802.11a (Ant.1)	16.50	16.44	-0.090	0 mm [Top]	FCC #2	0.248	6	97.1	0.269	1.014	1.030	0.281	
5825.0	165	802.11a (Ant.1)	16.50	16.44	0.170	0 mm [Front]	FCC #2	0.417	6	97.1	0.528	1.014	1.030	**0.551**	A84
5825.0	165	802.11a (Ant.1)	16.50	16.44	0.030	0 mm [Rear]	FCC #2	0.474	6	97.1	0.406	1.014	1.030	0.424	
5825.0	165	802.11a (Ant.1)	16.50	16.44	0.100	0 mm [Left]	FCC #2	0.132	6	97.1	0.143	1.014	1.030	0.149	
5825.0	165	802.11a (Ant.1)	16.50	16.44	0.180	0 mm [Front]	FCC #2	0.413	6	97.1	0.470	1.014	1.030	0.491	
5825.0	165	802.11a (Ant.2)	16.50	16.12	0.020	0 mm [Top]	FCC #2	0.013	6	97.1	0.011	1.091	1.030	0.012	
5825.0	165	802.11a (Ant.2)	16.50	16.12	0.110	0 mm [Front]	FCC #2	0.367	6	97.1	0.390	1.091	1.030	0.438	
5825.0	165	802.11a (Ant.2)	16.50	16.12	-0.110	0 mm [Rear]	FCC #2	0.568	6	97.1	0.646	1.091	1.030	**0.726**	A85
5825.0	165	802.11a (Ant.2)	16.50	16.12	-0.180	0 mm [Left]	FCC #2	0.160	6	97.1	0.158	1.091	1.030	0.178	
5825.0	165	802.11a (Ant.2)	16.50	16.12	-0.170	0 mm [Rear]	FCC #2	0.527	6	97.1	0.606	1.091	1.030	0.681	
5825.0	165	802.11a (MIMO)	19.50	19.29	-0.060	0 mm [Top]	FCC #2	0.244	6	97.1	0.264	1.132	1.030	0.308	
5825.0	165	802.11a (MIMO)	19.50	19.29	0.000	0 mm [Front]	FCC #2	0.804	6	97.1	0.753	1.132	1.030	0.878	
5825.0	165	802.11a (MIMO)	19.50	19.29	0.160	0 mm [Rear]	FCC #2	0.989	6	97.1	0.929	1.132	1.030	**1.083**	A86
5825.0	165	802.11a (MIMO)	19.50	19.29	0.080	0 mm [Left]	FCC #2	0.155	6	97.1	0.147	1.132	1.030	0.171	
5825.0	165	802.11a (MIMO)	19.50	19.29	0.160	0 mm [Rear]	FCC #2	0.873	6	97.1	0.831	1.132	1.030	0.969	
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure								Phablet 4.0 W/kg (mW/g) averaged over 10 gram							

Note(s):
1. Blue entries represent SIM2(This device supports Dual SIM and is 1 RF Path.) measurements.
2. UNII-3 Band CH 165 (5825 MHz) is not support Hotspot mode as described on operational description of this device, so phablet SAR is tested on this CH.

11.5 SAR Test Notes

General Notes:

1. The test data reported are the worst-case SAR values according to test procedures specified in IEEE 1528-2013, and FCC KDB Publication 447498 D01v06.
2. Batteries are fully charged at the beginning of the SAR measurements. A standard battery was used for all SAR measurements.
3. Liquid tissue depth was at least 15.0 cm for all frequencies.
4. The manufacturer has confirmed that the device(s) tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units
5. SAR results were scaled to the maximum allowed power to demonstrate compliance per FCC KDB Publication 447498 D01v06.
6. Device was tested using a fixed spacing for body-worn accessory testing. A separation distance of 10 mm was considered because the manufacturer has determined that there will be body-worn accessories available in the marketplace for users to support this separation distance.
7. Per FCC KDB Publication 648474 D04v01r03, body-worn SAR was evaluated without a headset connected to the device. Since the standalone reported boy-worn SAR was not > 1.2 W/kg, no additional body-worn SAR evaluations using a headset cable were performed.
8. During SAR Testing for the Wireless Router conditions per FCC KDB Publication 941225 D06v02r01, the actual Portable Hotspot operation (with actual simultaneous transmission of a transmitter with WIFI) was not activated.
9. SAR measurements were performed using the DASY5 automated system. The procedure for spatial peak SAR evaluation has been implemented according to the IEEE 1528 standard. During a maximum search, global and local maxima searches are automatically performed in 2-D after each area scan measurement. The algorithm will find the global maximum and all local maxima within 2 dB of the global maxima for all SAR distributions. All local maxima within 2 dB of the global maximum were searched and passed for the Zoom Scan measurement.

GSM Notes:

1. Body-Worn accessory testing is typically associated with voice operations. Therefore, GSM voice was evaluated for body-worn SAR.
2. This device supports GSM VOIP in the head and body-worn configurations; therefore GPRS was additionally evaluated for head and body-worn compliance.
3. Justification for reduced test configurations per KDB Publication 941225 D01v03r01 and October2013 TCB Workshop Notes: The source-based frame-averaged output power was evaluated for all GPRS/EDGE slot configurations. The configuration with the highest target frame averaged output power was evaluated for hotspot SAR.
4. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). Since the maximum output power variation across the required test channels is not > ½ dB, the middle channel was used for testing.

WCDMA (UMTS) Notes:

1. WCDMA (UMTS) mode in was tested under RMC 12.2 kbps with HSPA Inactive per KDB Publication 941225 D01v03r01. AMR and HSPA SAR was not required since the average output power of the HSPA subtests was not more than 0.25 dB higher than the RMC level and SAR was less than 1.2 W/kg.
2. Per FCC KDB Publication 447498 D01v06, if the reported (scaled) SAR measured at the middle channel or highest output power channel for each test configuration is ≤ 0.8 W/kg then testing at the other channels is not required for such test configuration(s). When the maximum output power variation across the required test channels is > ½ dB, instead of the middle channel, the highest output power channel was used.

LTE Notes:

1. LTE Considerations: LTE test configurations are determined according to SAR Evaluation Considerations for LTE Devices in FCC KDB Publication 941225 D05v02r05. The general test procedures used for testing can be found in Section 8.4.4.
2. According to FCC KDB 941225 D05v02r05, when the reported SAR is ≤ 0.8 W/kg, testing of the 100% RB allocation and required test channels is not required.
   Otherwise, SAR is required for the remaining required test channels using the 1 RB, 50% RB and 100% RB allocation with highest output power for that channel.
   Only one channel, and as reported SAR values for 1 RB allocation and 50% RB allocation were less than 1.45 W/kg only the highest power RB offset for each allocation was required.
3. MPR is permanently implemented for this device by the manufacturer. The specific manufacturer target MPR is indicated alongside the SAR results. MPR is enabled for this device, according to 3GPP TS36. 101 Section 6.2.3 – 6.2.5 under Table 6.2.3-1.
4. A-MPR was disabled for all SAR tests by setting NS=1 on the base station simulator. SAR tests were performed with the same number of RB and RB offsets transmitting on all TTI frames (maximum TTI).
5. Per KDB Publication 941225 D05Av01r02, SAR for LTE CA operations was not needed since the maximum average output power in LTE CA mode was not > 0.25 dB higher than the maximum output power when downlink carrier aggregation was inactive.
6. Per FCC KDB Publication 447498 D01v06, when the reported (scaled) for LTE Band 41 SAR measured at the highest output power channel in a given a test configuration was > 0.6 W/kg for 1g evaluations, testing at the other channels was required for such test configurations.
7. TDD LTE was tested per the guidance provided in FCC KDB Publication 941225 D05v02r05. Testing was performed using UL-DL configuration 0 with 6 UL sub frames and 2S sub frames using extended cyclic prefix only and special sub frame configuration 6. SAR tests were performed at maximum output power and worst-case transmission duty factor in extended cyclic prefix. Per 3GPP 36.211 Sec. 4, the duty factor using extended cyclic prefix is 0.633 (cf=1.58).
8. SAR test reduction is applied using the following criteria:
   Start with the largest channel bandwidth and measure SAR for QPSK with 1 RB, and 50% RB allocation, using the RB offset and required test channel combination with the highest maximum output power among RB offsets at the upper edge, middle and lower edge of each required test channel. When the reported SAR is > 0.8 W/kg, testing for other channels is performed at the highest output power level for 1 RB, and 50% RB configuration for that channel. Testing for 100% RB configuration is performed at the highest output power level for 100% RB configuration across the Low, Mid and High channel when the highest reported SAR for 1 RB and 50% RB are > 0.8 W/kg, Testing for the remaining required channels is not needed because the reported SAR for 100% RB Allocation < 1.45 W/kg. Testing for 16QAM modulation is not required because the reported SAR for QPSK is < 1.45 W/kg and its output power is not more than 0.5 dB higher than that a QPSK. Testing for the other channel bandwidths is not required because the reported SAR for the highest channel bandwidth is < 1.45 W/kg and its output power is not more than 0.5 dB higher than that of the highest channel bandwidth.

WLAN Notes:

1. The initial test position procedures were applied. The test position with the highest extrapolated peak SAR will be used as the initial test position. When reported SAR for the initial test position is ≤ 0.4 W/kg, no additional testing for the remaining test positions was required. Otherwise, SAR is evaluated at the subsequent highest peak SAR positions until the reported SAR result is ≤ 0.8 W/kg or all test positions are measured.
2. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 2.4 GHz WIFI single transmission chain operations, the highest measured maximum output power channel for DSSS was selected for SAR measurement. SAR for OFDM modes (2.4 GHz 802.11g/n) was not required duo to the maximum allowed powers and the highest reported DSSS SAR when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output and the adjust SAR is ≤ 1.2 W/kg.
3. Justification for test configurations for WLAN per KDB Publication 248227 D01v02r02 for 5 GHz WIFI single transmission chain operations, the initial test configuration was selected according to the transmission mode with the highest maximum allowed powers. Other transmission modes were not investigated since the highest reported SAR for initial test configuration adjusted by the ratio of maximum output powers is less than 1.2 W/kg.
4. When the maximum reported 1g averaged SAR ≤ 0.8 W/kg, SAR testing on additional channels was not required. Otherwise, SAR for the next highest output power channel was required until the reported SAR result was ≤ 1.20 W/kg or all test channels were measured**.**
5. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor to determine compliance.
6. Per KDB Publication 248227 D01v02r02, SAR for MIMO was evaluated by following the simultaneous SAR provisions from KDB Publication 447498 D01v06 by making a SAR measurement with both antennas transmitting simultaneously.

Bluetooth Notes:

1. Bluetooth SAR was measured with the device connected to a call with hopping disabled with DH5 operation and Tx test mode type. Per October 2016 TCB Workshop Notes, the reported SAR was scaled to the 100% transmission duty factor to determine compliance. Refer to section 9.5 for the time-domain plot and calculation for the duty factor of the device.
2. Head and hotspot Bluetooth SAR were evaluated for BT tethering applications.

12. FCC MULTI-TX AND ANTENNA SAR CONSIDERATIONS

12.1 Introduction

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

12.2 Simultaneous Transmission Procedures

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

12.3 Simultaneous Transmission Capabilities

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

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

Table 12.3.1 Simultaneous Transmission Scenarios

No.	Capable TX Configuration	GSM 850/1900 (Voice)	GPRS/EDGE 850/1900 (Data)	WCDMA B5/B4/B2 (Voice)	WCDMA B5/B4/B2 (Data)	LTE B12/B17/B13/B26/B5 B66/B4/B2/B7/B41	WIFI 2.4GHz 802.11b/g/n/ac	WIFI 5GHz 802.11a/n/ac	Bluetooth 2.4GHz
1	GSM 850/1900 (Voice)		No	No	No	No	Yes	Yes	Yes
2	GPRS/EDGE 850/1900 (Data)	No		No	No	No	Yes	Yes	Yes
3	WCDMA B5/B4/B2 (Voice)	No	No		No	No	Yes	Yes	Yes
4	WCDMA B5/B4/B2 (Data)	No	No	No		No	Yes	Yes	Yes
5	LTE B12/B17/B13/B26/B5 B66/B4/B2/B7/B41	No	No	No	No		Yes	Yes	Yes
6	WIFI 2.4GHz 802.11b/g/n/ac	Yes	Yes	Yes	Yes	Yes		Yes	No
7	WIFI 5GHz 802.11a/n/ac	Yes	Yes	Yes	Yes	Yes	Yes		Yes
8	Bluetooth 2.4GHz	Yes	Yes	Yes	Yes	Yes	No	Yes	

Table 12.3.2 Simultaneous SAR Cases

No.	Capable Transmit Configuration	Power conditions								Note
		Head		Body-Worn		Hotspot		Phablet		
		Licensed	Wi-Fi	Licensed	Wi-Fi	Licensed	Wi-Fi	Licensed	Wi-Fi	
1	GSM Voice + Wi-Fi 2.4 GHz	Yes		Yes		N/A		Yes		* Hotspot of UNII-1 & UNII-3 can be operated simultaneous transmission. ^ Reduced - Power reduction is applied in DBS Mode Only. - Power reduction is applied to 802.11b/g/n/ac for 2.4GHz Wi-Fi Ant.1 and 802.11a/n/ac for 5GHz Wi-Fi Ant.2. - No Power reduction for the licensed parts. - No power reduction is applied for Bluetooth, headset and speaker-phone use conditions.
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
2	GSM Voice + Wi-Fi 5 GHz	Yes		Yes		N/A		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
3	GSM Voice + Bluetooth 2.4 GHz	Yes		Yes		N/A		Yes		
		Normal	N/A	Normal	N/A	Normal	N/A	Normal	N/A	
4	GSM Voice + Wi-Fi 2.4 GHz MIMO	Yes		Yes		N/A		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
5	GSM Voice + Wi-Fi 5 GHz MIMO	Yes		Yes		N/A		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
6	GSM Voice + Wi-Fi 2.4 GHz Ant.1 + Wi-Fi 5GHz Ant.2	Yes^		Yes^		N/A		Yes^		
		Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	
7	GSM Voice + Bluetooth 2.4 GHz + Wi-Fi 5GHz	Yes		Yes		N/A		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
8	WCDMA + Wi-Fi 2.4 GHz	Yes		Yes		Yes		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
9	WCDMA + Wi-Fi 5 GHz	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
10	WCDMA + Bluetooth 2.4 GHz	Yes		Yes		Yes		Yes		
		Normal	N/A	Normal	N/A	Normal	N/A	Normal	N/A	
11	WCDMA + Wi-Fi 2.4 GHz MIMO	Yes		Yes		Yes		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
12	WCDMA + Wi-Fi 5 GHz MIMO	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
13	WCMDA + Wi-Fi 2.4 GHz Ant.1 + Wi-Fi 5GHz Ant.2	Yes^		Yes^		Yes*^		Yes^		
		Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	
14	WCMDA + Bluetooth 2.4 GHz + Wi-Fi 5GHz	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
15	LTE + Wi-Fi 2.4 GHz	Yes		Yes		Yes		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
16	LTE + Wi-Fi 5 GHz	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
17	LTE + Bluetooth 2.4 GHz	Yes		Yes		Yes		Yes		
		Normal	N/A	Normal	N/A	Normal	N/A	Normal	N/A	
18	LTE + Wi-Fi 2.4 GHz MIMO	Yes		Yes		Yes		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
19	LTE + Wi-Fi 5 GHz MIMO	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
20	LTE + Wi-Fi 2.4 GHz Ant.1 + Wi-Fi 5GHz Ant.2	Yes^		Yes^		Yes*^		Yes^		
		Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	
21	LTE + Bluetooth 2.4 GHz + Wi-Fi 5GHz	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
22	GPRS/EDGE + Wi-Fi 2.4 GHz	Yes		Yes		Yes		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
23	GPRS/EDGE + Wi-Fi 5 GHz	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
24	GPRS/EDGE + Bluetooth 2.4 GHz	Yes		Yes		Yes		Yes		
		Normal	N/A	Normal	N/A	Normal	N/A	Normal	N/A	
25	GPRS/EDGE + Wi-Fi 2.4 GHz MIMO	Yes		Yes		Yes		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
26	GPRS/EDGE + Wi-Fi 5 GHz MIMO	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
27	GPRS/EDGE + Wi-Fi 2.4 GHz Ant.1 + Wi-Fi 5GHz Ant.2	Yes^		Yes^		Yes*^		Yes^		
		Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	Normal	Reduced^	
28	GPRS/EDGE + Bluetooth 2.4 GHz + Wi-Fi 5GHz	Yes		Yes		Yes*		Yes		
		Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	

Notes:

1. WiFi 2.4GHz is supported Hotspot and WiFi-Direct(GO/GC).
2. WiFi 5GHz is supported Hotspot in UNII B1,B3 and WiFi-Direct(GO/GC) in UNII B1,B3.
3. LTE, WCDMA, GPRS/EDGE is supported Hotspot.
4. VoIP is supported in LTE, WCDMA, GSM
5. Bluetooth and WiFi can not transmit simultaneously at 2.4G band.
6. GSM, WCDMA and LTE can not transmit simultaneously since they share the same chip.
7. When the user utilizes multiple services in UMTS 3G mode it uses multi-Radio Access Bearer or multi-RAB. The power control is based on a physical control channel (Dedicated Physical Control Channel [DPCCH]) and power control will be adjusted to meet the needs of both services. Therefore, the UMTS+WLAN scenario also represents the UMTS Voice/DATA + WLAN Hotspot scenario.
8. Per the manufacturer, WIFI Direct is expected to be used in conjunction with a held-to-ear or body-worn accessory voice call. Simultaneous transmission scenarios involving WIFI direct are included in the above table.

12.4 Head SAR Simultaneous Transmission Analysis

Table 12.4.1 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 + 5.3 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.3G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.246	0.521	0.349	0.624	0.870
		Right Touch	0.092	0.456	0.543	0.548	0.635	**1.091**
		Left Tilt	0.036	0.270	0.055	0.306	0.091	0.361
		Right Tilt	0.038	0.505	0.107	0.543	0.145	0.650
	GPRS 850	Left Touch	0.145	0.246	0.521	0.391	0.666	0.912
		Right Touch	0.131	0.456	0.543	0.587	0.674	**1.130**
		Left Tilt	0.048	0.270	0.055	0.318	0.103	0.373
		Right Tilt	0.063	0.505	0.107	0.568	0.170	0.675
	GSM 1900	Left Touch	0.013	0.246	0.521	0.259	0.534	0.780
		Right Touch	0.032	0.456	0.543	0.488	0.575	**1.031**
		Left Tilt	0.006	0.270	0.055	0.276	0.061	0.331
		Right Tilt	0.003	0.505	0.107	0.508	0.110	0.615
	GPRS 1900	Left Touch	0.020	0.246	0.521	0.266	0.541	0.787
		Right Touch	0.044	0.456	0.543	0.500	0.587	**1.043**
		Left Tilt	0.008	0.270	0.055	0.278	0.063	0.333
		Right Tilt	0.004	0.505	0.107	0.509	0.111	0.616
	WCDMA 850	Left Touch	0.141	0.246	0.521	0.387	0.662	0.908
		Right Touch	0.132	0.456	0.543	0.588	0.675	**1.131**
		Left Tilt	0.055	0.270	0.055	0.325	0.110	0.380
		Right Tilt	0.069	0.505	0.107	0.574	0.176	0.681
	WCDMA 1700	Left Touch	0.036	0.246	0.521	0.282	0.557	0.803
		Right Touch	0.075	0.456	0.543	0.531	0.618	**1.074**
		Left Tilt	0.017	0.270	0.055	0.287	0.072	0.342
		Right Tilt	0.014	0.505	0.107	0.519	0.121	0.626
	WCDMA 1900	Left Touch	0.028	0.246	0.521	0.274	0.549	0.795
		Right Touch	0.070	0.456	0.543	0.526	0.613	**1.069**
		Left Tilt	0.011	0.270	0.055	0.281	0.066	0.336
		Right Tilt	0.011	0.505	0.107	0.516	0.118	0.623
	LTE Band 12	Left Touch	0.165	0.246	0.521	0.411	0.686	0.932
		Right Touch	0.208	0.456	0.543	0.664	0.751	**1.207**
		Left Tilt	0.072	0.270	0.055	0.342	0.127	0.397
		Right Tilt	0.107	0.505	0.107	0.612	0.214	0.719
	LTE Band 13	Left Touch	0.137	0.246	0.521	0.383	0.658	0.904
		Right Touch	0.156	0.456	0.543	0.612	0.699	**1.155**
		Left Tilt	0.073	0.270	0.055	0.343	0.128	0.398
		Right Tilt	0.103	0.505	0.107	0.608	0.210	0.715
	LTE Band 26	Left Touch	0.142	0.246	0.521	0.388	0.663	0.909
		Right Touch	0.163	0.456	0.543	0.619	0.706	**1.162**
		Left Tilt	0.071	0.270	0.055	0.341	0.126	0.396
		Right Tilt	0.079	0.505	0.107	0.584	0.186	0.691
	LTE Band 5	Left Touch	0.168	0.246	0.521	0.414	0.689	0.935
		Right Touch	0.132	0.456	0.543	0.588	0.675	**1.131**
		Left Tilt	0.063	0.270	0.055	0.333	0.118	0.388
		Right Tilt	0.064	0.505	0.107	0.569	0.171	0.676
	LTE Band 66	Left Touch	0.042	0.246	0.521	0.288	0.563	0.809
		Right Touch	0.081	0.456	0.543	0.537	0.624	**1.080**
		Left Tilt	0.025	0.270	0.055	0.295	0.080	0.350
		Right Tilt	0.016	0.505	0.107	0.521	0.123	0.628
	LTE Band 2	Left Touch	0.030	0.246	0.521	0.276	0.551	0.797
		Right Touch	0.071	0.456	0.543	0.527	0.614	**1.070**
		Left Tilt	0.015	0.270	0.055	0.285	0.070	0.340
		Right Tilt	0.016	0.505	0.107	0.521	0.123	0.628
	LTE Band 7	Left Touch	0.178	0.246	0.521	0.424	0.699	0.945
		Right Touch	0.115	0.456	0.543	0.571	0.658	**1.114**
		Left Tilt	0.188	0.270	0.055	0.458	0.243	0.513
		Right Tilt	0.217	0.505	0.107	0.722	0.324	0.829
	LTE Band 41	Left Touch	0.104	0.246	0.521	0.350	0.625	0.871
		Right Touch	0.074	0.456	0.543	0.530	0.617	**1.073**
		Left Tilt	0.028	0.270	0.055	0.298	0.083	0.353
		Right Tilt	0.066	0.505	0.107	0.571	0.173	0.678

Table 12.4.2 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1+ 5.6 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.6G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.246	0.294	0.349	0.397	0.643
		Right Touch	0.092	0.456	0.549	0.548	0.641	**1.097**
		Left Tilt	0.036	0.270	0.084	0.306	0.120	0.390
		Right Tilt	0.038	0.505	0.146	0.543	0.184	0.689
	GPRS 850	Left Touch	0.145	0.246	0.294	0.391	0.439	0.685
		Right Touch	0.131	0.456	0.549	0.587	0.680	**1.136**
		Left Tilt	0.048	0.270	0.084	0.318	0.132	0.402
		Right Tilt	0.063	0.505	0.146	0.568	0.209	0.714
	GSM 1900	Left Touch	0.013	0.246	0.294	0.259	0.307	0.553
		Right Touch	0.032	0.456	0.549	0.488	0.581	**1.037**
		Left Tilt	0.006	0.270	0.084	0.276	0.090	0.360
		Right Tilt	0.003	0.505	0.146	0.508	0.149	0.654
	GPRS 1900	Left Touch	0.020	0.246	0.294	0.266	0.314	0.560
		Right Touch	0.044	0.456	0.549	0.500	0.593	**1.049**
		Left Tilt	0.008	0.270	0.084	0.278	0.092	0.362
		Right Tilt	0.004	0.505	0.146	0.509	0.150	0.655
	WCDMA 850	Left Touch	0.141	0.246	0.294	0.387	0.435	0.681
		Right Touch	0.132	0.456	0.549	0.588	0.681	**1.137**
		Left Tilt	0.055	0.270	0.084	0.325	0.139	0.409
		Right Tilt	0.069	0.505	0.146	0.574	0.215	0.720
	WCDMA 1700	Left Touch	0.036	0.246	0.294	0.282	0.330	0.576
		Right Touch	0.075	0.456	0.549	0.531	0.624	**1.080**
		Left Tilt	0.017	0.270	0.084	0.287	0.101	0.371
		Right Tilt	0.014	0.505	0.146	0.519	0.160	0.665
	WCDMA 1900	Left Touch	0.028	0.246	0.294	0.274	0.322	0.568
		Right Touch	0.070	0.456	0.549	0.526	0.619	**1.075**
		Left Tilt	0.011	0.270	0.084	0.281	0.095	0.365
		Right Tilt	0.011	0.505	0.146	0.516	0.157	0.662
	LTE Band 12	Left Touch	0.165	0.246	0.294	0.411	0.459	0.705
		Right Touch	0.208	0.456	0.549	0.664	0.757	**1.213**
		Left Tilt	0.072	0.270	0.084	0.342	0.156	0.426
		Right Tilt	0.107	0.505	0.146	0.612	0.253	0.758
	LTE Band 13	Left Touch	0.137	0.246	0.294	0.383	0.431	0.677
		Right Touch	0.156	0.456	0.549	0.612	0.705	**1.161**
		Left Tilt	0.073	0.270	0.084	0.343	0.157	0.427
		Right Tilt	0.103	0.505	0.146	0.608	0.249	0.754
	LTE Band 26	Left Touch	0.142	0.246	0.294	0.388	0.436	0.682
		Right Touch	0.163	0.456	0.549	0.619	0.712	**1.168**
		Left Tilt	0.071	0.270	0.084	0.341	0.155	0.425
		Right Tilt	0.079	0.505	0.146	0.584	0.225	0.730
	LTE Band 5	Left Touch	0.168	0.246	0.294	0.414	0.462	0.708
		Right Touch	0.132	0.456	0.549	0.588	0.681	**1.137**
		Left Tilt	0.063	0.270	0.084	0.333	0.147	0.417
		Right Tilt	0.064	0.505	0.146	0.569	0.210	0.715
	LTE Band 66	Left Touch	0.042	0.246	0.294	0.288	0.336	0.582
		Right Touch	0.081	0.456	0.549	0.537	0.630	**1.086**
		Left Tilt	0.025	0.270	0.084	0.295	0.109	0.379
		Right Tilt	0.016	0.505	0.146	0.521	0.162	0.667
	LTE Band 2	Left Touch	0.030	0.246	0.294	0.276	0.324	0.570
		Right Touch	0.071	0.456	0.549	0.527	0.620	**1.076**
		Left Tilt	0.015	0.270	0.084	0.285	0.099	0.369
		Right Tilt	0.016	0.505	0.146	0.521	0.162	0.667
	LTE Band 7	Left Touch	0.178	0.246	0.294	0.424	0.472	0.718
		Right Touch	0.115	0.456	0.549	0.571	0.664	**1.120**
		Left Tilt	0.188	0.270	0.084	0.458	0.272	0.542
		Right Tilt	0.217	0.505	0.146	0.722	0.363	0.868
	LTE Band 41	Left Touch	0.104	0.246	0.294	0.350	0.398	0.644
		Right Touch	0.074	0.456	0.549	0.530	0.623	**1.079**
		Left Tilt	0.028	0.270	0.084	0.298	0.112	0.382
		Right Tilt	0.066	0.505	0.146	0.571	0.212	0.717

Table 12.4.3 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 + 5.8 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.246	0.209	0.349	0.312	0.558
		Right Touch	0.092	0.456	0.607	0.548	0.699	**1.155**
		Left Tilt	0.036	0.270	0.060	0.306	0.096	0.366
		Right Tilt	0.038	0.505	0.189	0.543	0.227	0.732
	GPRS 850	Left Touch	0.145	0.246	0.209	0.391	0.354	0.600
		Right Touch	0.131	0.456	0.607	0.587	0.738	**1.194**
		Left Tilt	0.048	0.270	0.060	0.318	0.108	0.378
		Right Tilt	0.063	0.505	0.189	0.568	0.252	0.757
	GSM 1900	Left Touch	0.013	0.246	0.209	0.259	0.222	0.468
		Right Touch	0.032	0.456	0.607	0.488	0.639	**1.095**
		Left Tilt	0.006	0.270	0.060	0.276	0.066	0.336
		Right Tilt	0.003	0.505	0.189	0.508	0.192	0.697
	GPRS 1900	Left Touch	0.020	0.246	0.209	0.266	0.229	0.475
		Right Touch	0.044	0.456	0.607	0.500	0.651	**1.107**
		Left Tilt	0.008	0.270	0.060	0.278	0.068	0.338
		Right Tilt	0.004	0.505	0.189	0.509	0.193	0.698
	WCDMA 850	Left Touch	0.141	0.246	0.209	0.387	0.350	0.596
		Right Touch	0.132	0.456	0.607	0.588	0.739	**1.195**
		Left Tilt	0.055	0.270	0.060	0.325	0.115	0.385
		Right Tilt	0.069	0.505	0.189	0.574	0.258	0.763
	WCDMA 1700	Left Touch	0.036	0.246	0.209	0.282	0.245	0.491
		Right Touch	0.075	0.456	0.607	0.531	0.682	**1.138**
		Left Tilt	0.017	0.270	0.060	0.287	0.077	0.347
		Right Tilt	0.014	0.505	0.189	0.519	0.203	0.708
	WCDMA 1900	Left Touch	0.028	0.246	0.209	0.274	0.237	0.483
		Right Touch	0.070	0.456	0.607	0.526	0.677	**1.133**
		Left Tilt	0.011	0.270	0.060	0.281	0.071	0.341
		Right Tilt	0.011	0.505	0.189	0.516	0.200	0.705
	LTE Band 12	Left Touch	0.165	0.246	0.209	0.411	0.374	0.620
		Right Touch	0.208	0.456	0.607	0.664	0.815	**1.271**
		Left Tilt	0.072	0.270	0.060	0.342	0.132	0.402
		Right Tilt	0.107	0.505	0.189	0.612	0.296	0.801
	LTE Band 13	Left Touch	0.137	0.246	0.209	0.383	0.346	0.592
		Right Touch	0.156	0.456	0.607	0.612	0.763	**1.219**
		Left Tilt	0.073	0.270	0.060	0.343	0.133	0.403
		Right Tilt	0.103	0.505	0.189	0.608	0.292	0.797
	LTE Band 26	Left Touch	0.142	0.246	0.209	0.388	0.351	0.597
		Right Touch	0.163	0.456	0.607	0.619	0.770	**1.226**
		Left Tilt	0.071	0.270	0.060	0.341	0.131	0.401
		Right Tilt	0.079	0.505	0.189	0.584	0.268	0.773
	LTE Band 5	Left Touch	0.168	0.246	0.209	0.414	0.377	0.623
		Right Touch	0.132	0.456	0.607	0.588	0.739	**1.195**
		Left Tilt	0.063	0.270	0.060	0.333	0.123	0.393
		Right Tilt	0.064	0.505	0.189	0.569	0.253	0.758
	LTE Band 66	Left Touch	0.042	0.246	0.209	0.288	0.251	0.497
		Right Touch	0.081	0.456	0.607	0.537	0.688	**1.144**
		Left Tilt	0.025	0.270	0.060	0.295	0.085	0.355
		Right Tilt	0.016	0.505	0.189	0.521	0.205	0.710
	LTE Band 2	Left Touch	0.030	0.246	0.209	0.276	0.239	0.485
		Right Touch	0.071	0.456	0.607	0.527	0.678	**1.134**
		Left Tilt	0.015	0.270	0.060	0.285	0.075	0.345
		Right Tilt	0.016	0.505	0.189	0.521	0.205	0.710
	LTE Band 7	Left Touch	0.178	0.246	0.209	0.424	0.387	0.633
		Right Touch	0.115	0.456	0.607	0.571	0.722	**1.178**
		Left Tilt	0.188	0.270	0.060	0.458	0.248	0.518
		Right Tilt	0.217	0.505	0.189	0.722	0.406	0.911
	LTE Band 41	Left Touch	0.104	0.246	0.209	0.350	0.313	0.559
		Right Touch	0.074	0.456	0.607	0.530	0.681	**1.137**
		Left Tilt	0.028	0.270	0.060	0.298	0.088	0.358
		Right Tilt	0.066	0.505	0.189	0.571	0.255	0.760

Table 12.4.4 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.3 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.3G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.350	0.180	0.453	0.530
		Right Touch	0.092	0.142	0.467	0.234	0.559	**0.701**
		Left Tilt	0.036	0.077	0.317	0.113	0.353	0.430
		Right Tilt	0.038	0.183	0.479	0.221	0.517	0.700
	GPRS 850	Left Touch	0.145	0.077	0.350	0.222	0.495	0.572
		Right Touch	0.131	0.142	0.467	0.273	0.598	**0.740**
		Left Tilt	0.048	0.077	0.317	0.125	0.365	0.442
		Right Tilt	0.063	0.183	0.479	0.246	0.542	0.725
	GSM 1900	Left Touch	0.013	0.077	0.350	0.090	0.363	0.440
		Right Touch	0.032	0.142	0.467	0.174	0.499	0.641
		Left Tilt	0.006	0.077	0.317	0.083	0.323	0.400
		Right Tilt	0.003	0.183	0.479	0.186	0.482	**0.665**
	GPRS 1900	Left Touch	0.020	0.077	0.350	0.097	0.370	0.447
		Right Touch	0.044	0.142	0.467	0.186	0.511	0.653
		Left Tilt	0.008	0.077	0.317	0.085	0.325	0.402
		Right Tilt	0.004	0.183	0.479	0.187	0.483	**0.666**
	WCDMA 850	Left Touch	0.141	0.077	0.350	0.218	0.491	0.568
		Right Touch	0.132	0.142	0.467	0.274	0.599	**0.741**
		Left Tilt	0.055	0.077	0.317	0.132	0.372	0.449
		Right Tilt	0.069	0.183	0.479	0.252	0.548	0.731
	WCDMA 1700	Left Touch	0.036	0.077	0.350	0.113	0.386	0.463
		Right Touch	0.075	0.142	0.467	0.217	0.542	**0.684**
		Left Tilt	0.017	0.077	0.317	0.094	0.334	0.411
		Right Tilt	0.014	0.183	0.479	0.197	0.493	0.676
	WCDMA 1900	Left Touch	0.028	0.077	0.350	0.105	0.378	0.455
		Right Touch	0.070	0.142	0.467	0.212	0.537	**0.679**
		Left Tilt	0.011	0.077	0.317	0.088	0.328	0.405
		Right Tilt	0.011	0.183	0.479	0.194	0.490	0.673
	LTE Band 12	Left Touch	0.165	0.077	0.350	0.242	0.515	0.592
		Right Touch	0.208	0.142	0.467	0.350	0.675	**0.817**
		Left Tilt	0.072	0.077	0.317	0.149	0.389	0.466
		Right Tilt	0.107	0.183	0.479	0.290	0.586	0.769
	LTE Band 13	Left Touch	0.137	0.077	0.350	0.214	0.487	0.564
		Right Touch	0.156	0.142	0.467	0.298	0.623	**0.765**
		Left Tilt	0.073	0.077	0.317	0.150	0.390	0.467
		Right Tilt	0.103	0.183	0.479	0.286	0.582	0.765
	LTE Band 26	Left Touch	0.142	0.077	0.350	0.219	0.492	0.569
		Right Touch	0.163	0.142	0.467	0.305	0.630	**0.772**
		Left Tilt	0.071	0.077	0.317	0.148	0.388	0.465
		Right Tilt	0.079	0.183	0.479	0.262	0.558	0.741
	LTE Band 5	Left Touch	0.168	0.077	0.350	0.245	0.518	0.595
		Right Touch	0.132	0.142	0.467	0.274	0.599	**0.741**
		Left Tilt	0.063	0.077	0.317	0.140	0.380	0.457
		Right Tilt	0.064	0.183	0.479	0.247	0.543	0.726
	LTE Band 66	Left Touch	0.042	0.077	0.350	0.119	0.392	0.469
		Right Touch	0.081	0.142	0.467	0.223	0.548	**0.690**
		Left Tilt	0.025	0.077	0.317	0.102	0.342	0.419
		Right Tilt	0.016	0.183	0.479	0.199	0.495	0.678
	LTE Band 2	Left Touch	0.030	0.077	0.350	0.107	0.380	0.457
		Right Touch	0.071	0.142	0.467	0.213	0.538	**0.680**
		Left Tilt	0.015	0.077	0.317	0.092	0.332	0.409
		Right Tilt	0.016	0.183	0.479	0.199	0.495	0.678
	LTE Band 7	Left Touch	0.178	0.077	0.350	0.255	0.528	0.605
		Right Touch	0.115	0.142	0.467	0.257	0.582	0.724
		Left Tilt	0.188	0.077	0.317	0.265	0.505	0.582
		Right Tilt	0.217	0.183	0.479	0.400	0.696	**0.879**
	LTE Band 41	Left Touch	0.104	0.077	0.350	0.181	0.454	0.531
		Right Touch	0.074	0.142	0.467	0.216	0.541	0.683
		Left Tilt	0.028	0.077	0.317	0.105	0.345	0.422
		Right Tilt	0.066	0.183	0.479	0.249	0.545	**0.728**

Table 12.4.5 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.3 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.3G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.521	0.180	0.624	0.701
		Right Touch	0.092	0.142	0.543	0.234	0.635	**0.777**
		Left Tilt	0.036	0.077	0.055	0.113	0.091	0.168
		Right Tilt	0.038	0.183	0.107	0.221	0.145	0.328
	GPRS 850	Left Touch	0.145	0.077	0.521	0.222	0.666	0.743
		Right Touch	0.131	0.142	0.543	0.273	0.674	**0.816**
		Left Tilt	0.048	0.077	0.055	0.125	0.103	0.180
		Right Tilt	0.063	0.183	0.107	0.246	0.170	0.353
	GSM 1900	Left Touch	0.013	0.077	0.521	0.090	0.534	0.611
		Right Touch	0.032	0.142	0.543	0.174	0.575	**0.717**
		Left Tilt	0.006	0.077	0.055	0.083	0.061	0.138
		Right Tilt	0.003	0.183	0.107	0.186	0.110	0.293
	GPRS 1900	Left Touch	0.020	0.077	0.521	0.097	0.541	0.618
		Right Touch	0.044	0.142	0.543	0.186	0.587	**0.729**
		Left Tilt	0.008	0.077	0.055	0.085	0.063	0.140
		Right Tilt	0.004	0.183	0.107	0.187	0.111	0.294
	WCDMA 850	Left Touch	0.141	0.077	0.521	0.218	0.662	0.739
		Right Touch	0.132	0.142	0.543	0.274	0.675	**0.817**
		Left Tilt	0.055	0.077	0.055	0.132	0.110	0.187
		Right Tilt	0.069	0.183	0.107	0.252	0.176	0.359
	WCDMA 1700	Left Touch	0.036	0.077	0.521	0.113	0.557	0.634
		Right Touch	0.075	0.142	0.543	0.217	0.618	**0.760**
		Left Tilt	0.017	0.077	0.055	0.094	0.072	0.149
		Right Tilt	0.014	0.183	0.107	0.197	0.121	0.304
	WCDMA 1900	Left Touch	0.028	0.077	0.521	0.105	0.549	0.626
		Right Touch	0.070	0.142	0.543	0.212	0.613	**0.755**
		Left Tilt	0.011	0.077	0.055	0.088	0.066	0.143
		Right Tilt	0.011	0.183	0.107	0.194	0.118	0.301
	LTE Band 12	Left Touch	0.165	0.077	0.521	0.242	0.686	0.763
		Right Touch	0.208	0.142	0.543	0.350	0.751	**0.893**
		Left Tilt	0.072	0.077	0.055	0.149	0.127	0.204
		Right Tilt	0.107	0.183	0.107	0.290	0.214	0.397
	LTE Band 13	Left Touch	0.137	0.077	0.521	0.214	0.658	0.735
		Right Touch	0.156	0.142	0.543	0.298	0.699	**0.841**
		Left Tilt	0.073	0.077	0.055	0.150	0.128	0.205
		Right Tilt	0.103	0.183	0.107	0.286	0.210	0.393
	LTE Band 26	Left Touch	0.142	0.077	0.521	0.219	0.663	0.740
		Right Touch	0.163	0.142	0.543	0.305	0.706	**0.848**
		Left Tilt	0.071	0.077	0.055	0.148	0.126	0.203
		Right Tilt	0.079	0.183	0.107	0.262	0.186	0.369
	LTE Band 5	Left Touch	0.168	0.077	0.521	0.245	0.689	0.766
		Right Touch	0.132	0.142	0.543	0.274	0.675	**0.817**
		Left Tilt	0.063	0.077	0.055	0.140	0.118	0.195
		Right Tilt	0.064	0.183	0.107	0.247	0.171	0.354
	LTE Band 66	Left Touch	0.042	0.077	0.521	0.119	0.563	0.640
		Right Touch	0.081	0.142	0.543	0.223	0.624	**0.766**
		Left Tilt	0.025	0.077	0.055	0.102	0.080	0.157
		Right Tilt	0.016	0.183	0.107	0.199	0.123	0.306
	LTE Band 2	Left Touch	0.030	0.077	0.521	0.107	0.551	0.628
		Right Touch	0.071	0.142	0.543	0.213	0.614	**0.756**
		Left Tilt	0.015	0.077	0.055	0.092	0.070	0.147
		Right Tilt	0.016	0.183	0.107	0.199	0.123	0.306
	LTE Band 7	Left Touch	0.178	0.077	0.521	0.255	0.699	0.776
		Right Touch	0.115	0.142	0.543	0.257	0.658	**0.800**
		Left Tilt	0.188	0.077	0.055	0.265	0.243	0.320
		Right Tilt	0.217	0.183	0.107	0.400	0.324	0.507
	LTE Band 41	Left Touch	0.104	0.077	0.521	0.181	0.625	0.702
		Right Touch	0.074	0.142	0.543	0.216	0.617	**0.759**
		Left Tilt	0.028	0.077	0.055	0.105	0.083	0.160
		Right Tilt	0.066	0.183	0.107	0.249	0.173	0.356

Table 12.4.6 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.3 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.3G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.613	0.180	0.716	0.793
		Right Touch	0.092	0.142	0.561	0.234	0.653	**0.795**
		Left Tilt	0.036	0.077	0.399	0.113	0.435	0.512
		Right Tilt	0.038	0.183	0.574	0.221	0.612	0.795
	GPRS 850	Left Touch	0.145	0.077	0.613	0.222	0.758	**0.835**
		Right Touch	0.131	0.142	0.561	0.273	0.692	0.834
		Left Tilt	0.048	0.077	0.399	0.125	0.447	0.524
		Right Tilt	0.063	0.183	0.574	0.246	0.637	0.820
	GSM 1900	Left Touch	0.013	0.077	0.613	0.090	0.626	0.703
		Right Touch	0.032	0.142	0.561	0.174	0.593	0.735
		Left Tilt	0.006	0.077	0.399	0.083	0.405	0.482
		Right Tilt	0.003	0.183	0.574	0.186	0.577	**0.760**
	GPRS 1900	Left Touch	0.020	0.077	0.613	0.097	0.633	0.710
		Right Touch	0.044	0.142	0.561	0.186	0.605	0.747
		Left Tilt	0.008	0.077	0.399	0.085	0.407	0.484
		Right Tilt	0.004	0.183	0.574	0.187	0.578	**0.761**
	WCDMA 850	Left Touch	0.141	0.077	0.613	0.218	0.754	0.831
		Right Touch	0.132	0.142	0.561	0.274	0.693	**0.835**
		Left Tilt	0.055	0.077	0.399	0.132	0.454	0.531
		Right Tilt	0.069	0.183	0.574	0.252	0.643	0.826
	WCDMA 1700	Left Touch	0.036	0.077	0.613	0.113	0.649	0.726
		Right Touch	0.075	0.142	0.561	0.217	0.636	**0.778**
		Left Tilt	0.017	0.077	0.399	0.094	0.416	0.493
		Right Tilt	0.014	0.183	0.574	0.197	0.588	0.771
	WCDMA 1900	Left Touch	0.028	0.077	0.613	0.105	0.641	0.718
		Right Touch	0.070	0.142	0.561	0.212	0.631	**0.773**
		Left Tilt	0.011	0.077	0.399	0.088	0.410	0.487
		Right Tilt	0.011	0.183	0.574	0.194	0.585	0.768
	LTE Band 12	Left Touch	0.165	0.077	0.613	0.242	0.778	0.855
		Right Touch	0.208	0.142	0.561	0.350	0.769	**0.911**
		Left Tilt	0.072	0.077	0.399	0.149	0.471	0.548
		Right Tilt	0.107	0.183	0.574	0.290	0.681	0.864
	LTE Band 13	Left Touch	0.137	0.077	0.613	0.214	0.750	0.827
		Right Touch	0.156	0.142	0.561	0.298	0.717	0.859
		Left Tilt	0.073	0.077	0.399	0.150	0.472	0.549
		Right Tilt	0.103	0.183	0.574	0.286	0.677	**0.860**
	LTE Band 26	Left Touch	0.142	0.077	0.613	0.219	0.755	0.832
		Right Touch	0.163	0.142	0.561	0.305	0.724	**0.866**
		Left Tilt	0.071	0.077	0.399	0.148	0.470	0.547
		Right Tilt	0.079	0.183	0.574	0.262	0.653	0.836
	LTE Band 5	Left Touch	0.168	0.077	0.613	0.245	0.781	**0.858**
		Right Touch	0.132	0.142	0.561	0.274	0.693	0.835
		Left Tilt	0.063	0.077	0.399	0.140	0.462	0.539
		Right Tilt	0.064	0.183	0.574	0.247	0.638	0.821
	LTE Band 66	Left Touch	0.042	0.077	0.613	0.119	0.655	0.732
		Right Touch	0.081	0.142	0.561	0.223	0.642	**0.784**
		Left Tilt	0.025	0.077	0.399	0.102	0.424	0.501
		Right Tilt	0.016	0.183	0.574	0.199	0.590	0.773
	LTE Band 2	Left Touch	0.030	0.077	0.613	0.107	0.643	0.720
		Right Touch	0.071	0.142	0.561	0.213	0.632	**0.774**
		Left Tilt	0.015	0.077	0.399	0.092	0.414	0.491
		Right Tilt	0.016	0.183	0.574	0.199	0.590	0.773
	LTE Band 7	Left Touch	0.178	0.077	0.613	0.255	0.791	0.868
		Right Touch	0.115	0.142	0.561	0.257	0.676	0.818
		Left Tilt	0.188	0.077	0.399	0.265	0.587	0.664
		Right Tilt	0.217	0.183	0.574	0.400	0.791	**0.974**
	LTE Band 41	Left Touch	0.104	0.077	0.613	0.181	0.717	0.794
		Right Touch	0.074	0.142	0.561	0.216	0.635	0.777
		Left Tilt	0.028	0.077	0.399	0.105	0.427	0.504
		Right Tilt	0.066	0.183	0.574	0.249	0.640	**0.823**

Table 12.4.7 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.6 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.6G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.565	0.180	0.668	**0.745**
		Right Touch	0.092	0.142	0.397	0.234	0.489	0.631
		Left Tilt	0.036	0.077	0.414	0.113	0.450	0.527
		Right Tilt	0.038	0.183	0.406	0.221	0.444	0.627
	GPRS 850	Left Touch	0.145	0.077	0.565	0.222	0.710	**0.787**
		Right Touch	0.131	0.142	0.397	0.273	0.528	0.670
		Left Tilt	0.048	0.077	0.414	0.125	0.462	0.539
		Right Tilt	0.063	0.183	0.406	0.246	0.469	0.652
	GSM 1900	Left Touch	0.013	0.077	0.565	0.090	0.578	**0.655**
		Right Touch	0.032	0.142	0.397	0.174	0.429	0.571
		Left Tilt	0.006	0.077	0.414	0.083	0.420	0.497
		Right Tilt	0.003	0.183	0.406	0.186	0.409	0.592
	GPRS 1900	Left Touch	0.020	0.077	0.565	0.097	0.585	**0.662**
		Right Touch	0.044	0.142	0.397	0.186	0.441	0.583
		Left Tilt	0.008	0.077	0.414	0.085	0.422	0.499
		Right Tilt	0.004	0.183	0.406	0.187	0.410	0.593
	WCDMA 850	Left Touch	0.141	0.077	0.565	0.218	0.706	**0.783**
		Right Touch	0.132	0.142	0.397	0.274	0.529	0.671
		Left Tilt	0.055	0.077	0.414	0.132	0.469	0.546
		Right Tilt	0.069	0.183	0.406	0.252	0.475	0.658
	WCDMA 1700	Left Touch	0.036	0.077	0.565	0.113	0.601	**0.678**
		Right Touch	0.075	0.142	0.397	0.217	0.472	0.614
		Left Tilt	0.017	0.077	0.414	0.094	0.431	0.508
		Right Tilt	0.014	0.183	0.406	0.197	0.420	0.603
	WCDMA 1900	Left Touch	0.028	0.077	0.565	0.105	0.593	**0.670**
		Right Touch	0.070	0.142	0.397	0.212	0.467	0.609
		Left Tilt	0.011	0.077	0.414	0.088	0.425	0.502
		Right Tilt	0.011	0.183	0.406	0.194	0.417	0.600
	LTE Band 12	Left Touch	0.165	0.077	0.565	0.242	0.730	**0.807**
		Right Touch	0.208	0.142	0.397	0.350	0.605	0.747
		Left Tilt	0.072	0.077	0.414	0.149	0.486	0.563
		Right Tilt	0.107	0.183	0.406	0.290	0.513	0.696
	LTE Band 13	Left Touch	0.137	0.077	0.565	0.214	0.702	**0.779**
		Right Touch	0.156	0.142	0.397	0.298	0.553	0.695
		Left Tilt	0.073	0.077	0.414	0.150	0.487	0.564
		Right Tilt	0.103	0.183	0.406	0.286	0.509	0.692
	LTE Band 26	Left Touch	0.142	0.077	0.565	0.219	0.707	**0.784**
		Right Touch	0.163	0.142	0.397	0.305	0.560	0.702
		Left Tilt	0.071	0.077	0.414	0.148	0.485	0.562
		Right Tilt	0.079	0.183	0.406	0.262	0.485	0.668
	LTE Band 5	Left Touch	0.168	0.077	0.565	0.245	0.733	**0.810**
		Right Touch	0.132	0.142	0.397	0.274	0.529	0.671
		Left Tilt	0.063	0.077	0.414	0.140	0.477	0.554
		Right Tilt	0.064	0.183	0.406	0.247	0.470	0.653
	LTE Band 66	Left Touch	0.042	0.077	0.565	0.119	0.607	**0.684**
		Right Touch	0.081	0.142	0.397	0.223	0.478	0.620
		Left Tilt	0.025	0.077	0.414	0.102	0.439	0.516
		Right Tilt	0.016	0.183	0.406	0.199	0.422	0.605
	LTE Band 2	Left Touch	0.030	0.077	0.565	0.107	0.595	**0.672**
		Right Touch	0.071	0.142	0.397	0.213	0.468	0.610
		Left Tilt	0.015	0.077	0.414	0.092	0.429	0.506
		Right Tilt	0.016	0.183	0.406	0.199	0.422	0.605
	LTE Band 7	Left Touch	0.178	0.077	0.565	0.255	0.743	**0.820**
		Right Touch	0.115	0.142	0.397	0.257	0.512	0.654
		Left Tilt	0.188	0.077	0.414	0.265	0.602	0.679
		Right Tilt	0.217	0.183	0.406	0.400	0.623	0.806
	LTE Band 41	Left Touch	0.104	0.077	0.565	0.181	0.669	**0.746**
		Right Touch	0.074	0.142	0.397	0.216	0.471	0.613
		Left Tilt	0.028	0.077	0.414	0.105	0.442	0.519
		Right Tilt	0.066	0.183	0.406	0.249	0.472	0.655

Table 12.4.8 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.6 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.6G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.294	0.180	0.397	0.474
		Right Touch	0.092	0.142	0.549	0.234	0.641	**0.783**
		Left Tilt	0.036	0.077	0.084	0.113	0.120	0.197
		Right Tilt	0.038	0.183	0.146	0.221	0.184	0.367
	GPRS 850	Left Touch	0.145	0.077	0.294	0.222	0.439	0.516
		Right Touch	0.131	0.142	0.549	0.273	0.680	**0.822**
		Left Tilt	0.048	0.077	0.084	0.125	0.132	0.209
		Right Tilt	0.063	0.183	0.146	0.246	0.209	0.392
	GSM 1900	Left Touch	0.013	0.077	0.294	0.090	0.307	0.384
		Right Touch	0.032	0.142	0.549	0.174	0.581	**0.723**
		Left Tilt	0.006	0.077	0.084	0.083	0.090	0.167
		Right Tilt	0.003	0.183	0.146	0.186	0.149	0.332
	GPRS 1900	Left Touch	0.020	0.077	0.294	0.097	0.314	0.391
		Right Touch	0.044	0.142	0.549	0.186	0.593	**0.735**
		Left Tilt	0.008	0.077	0.084	0.085	0.092	0.169
		Right Tilt	0.004	0.183	0.146	0.187	0.150	0.333
	WCDMA 850	Left Touch	0.141	0.077	0.294	0.218	0.435	0.512
		Right Touch	0.132	0.142	0.549	0.274	0.681	**0.823**
		Left Tilt	0.055	0.077	0.084	0.132	0.139	0.216
		Right Tilt	0.069	0.183	0.146	0.252	0.215	0.398
	WCDMA 1700	Left Touch	0.036	0.077	0.294	0.113	0.330	0.407
		Right Touch	0.075	0.142	0.549	0.217	0.624	**0.766**
		Left Tilt	0.017	0.077	0.084	0.094	0.101	0.178
		Right Tilt	0.014	0.183	0.146	0.197	0.160	0.343
	WCDMA 1900	Left Touch	0.028	0.077	0.294	0.105	0.322	0.399
		Right Touch	0.070	0.142	0.549	0.212	0.619	**0.761**
		Left Tilt	0.011	0.077	0.084	0.088	0.095	0.172
		Right Tilt	0.011	0.183	0.146	0.194	0.157	0.340
	LTE Band 12	Left Touch	0.165	0.077	0.294	0.242	0.459	0.536
		Right Touch	0.208	0.142	0.549	0.350	0.757	**0.899**
		Left Tilt	0.072	0.077	0.084	0.149	0.156	0.233
		Right Tilt	0.107	0.183	0.146	0.290	0.253	0.436
	LTE Band 13	Left Touch	0.137	0.077	0.294	0.214	0.431	0.508
		Right Touch	0.156	0.142	0.549	0.298	0.705	**0.847**
		Left Tilt	0.073	0.077	0.084	0.150	0.157	0.234
		Right Tilt	0.103	0.183	0.146	0.286	0.249	0.432
	LTE Band 26	Left Touch	0.142	0.077	0.294	0.219	0.436	0.513
		Right Touch	0.163	0.142	0.549	0.305	0.712	**0.854**
		Left Tilt	0.071	0.077	0.084	0.148	0.155	0.232
		Right Tilt	0.079	0.183	0.146	0.262	0.225	0.408
	LTE Band 5	Left Touch	0.168	0.077	0.294	0.245	0.462	0.539
		Right Touch	0.132	0.142	0.549	0.274	0.681	**0.823**
		Left Tilt	0.063	0.077	0.084	0.140	0.147	0.224
		Right Tilt	0.064	0.183	0.146	0.247	0.210	0.393
	LTE Band 66	Left Touch	0.042	0.077	0.294	0.119	0.336	0.413
		Right Touch	0.081	0.142	0.549	0.223	0.630	**0.772**
		Left Tilt	0.025	0.077	0.084	0.102	0.109	0.186
		Right Tilt	0.016	0.183	0.146	0.199	0.162	0.345
	LTE Band 2	Left Touch	0.030	0.077	0.294	0.107	0.324	0.401
		Right Touch	0.071	0.142	0.549	0.213	0.620	**0.762**
		Left Tilt	0.015	0.077	0.084	0.092	0.099	0.176
		Right Tilt	0.016	0.183	0.146	0.199	0.162	0.345
	LTE Band 7	Left Touch	0.178	0.077	0.294	0.255	0.472	0.549
		Right Touch	0.115	0.142	0.549	0.257	0.664	**0.806**
		Left Tilt	0.188	0.077	0.084	0.265	0.272	0.349
		Right Tilt	0.217	0.183	0.146	0.400	0.363	0.546
	LTE Band 41	Left Touch	0.104	0.077	0.294	0.181	0.398	0.475
		Right Touch	0.074	0.142	0.549	0.216	0.623	**0.765**
		Left Tilt	0.028	0.077	0.084	0.105	0.112	0.189
		Right Tilt	0.066	0.183	0.146	0.249	0.212	0.395

Table 12.4.9 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.6 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.6G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.575	0.180	0.678	0.755
		Right Touch	0.092	0.142	0.636	0.234	0.728	**0.870**
		Left Tilt	0.036	0.077	0.473	0.113	0.509	0.586
		Right Tilt	0.038	0.183	0.619	0.221	0.657	0.840
	GPRS 850	Left Touch	0.145	0.077	0.575	0.222	0.720	0.797
		Right Touch	0.131	0.142	0.636	0.273	0.767	**0.909**
		Left Tilt	0.048	0.077	0.473	0.125	0.521	0.598
		Right Tilt	0.063	0.183	0.619	0.246	0.682	0.865
	GSM 1900	Left Touch	0.013	0.077	0.575	0.090	0.588	0.665
		Right Touch	0.032	0.142	0.636	0.174	0.668	**0.810**
		Left Tilt	0.006	0.077	0.473	0.083	0.479	0.556
		Right Tilt	0.003	0.183	0.619	0.186	0.622	0.805
	GPRS 1900	Left Touch	0.020	0.077	0.575	0.097	0.595	0.672
		Right Touch	0.044	0.142	0.636	0.186	0.680	**0.822**
		Left Tilt	0.008	0.077	0.473	0.085	0.481	0.558
		Right Tilt	0.004	0.183	0.619	0.187	0.623	0.806
	WCDMA 850	Left Touch	0.141	0.077	0.575	0.218	0.716	0.793
		Right Touch	0.132	0.142	0.636	0.274	0.768	**0.910**
		Left Tilt	0.055	0.077	0.473	0.132	0.528	0.605
		Right Tilt	0.069	0.183	0.619	0.252	0.688	0.871
	WCDMA 1700	Left Touch	0.036	0.077	0.575	0.113	0.611	0.688
		Right Touch	0.075	0.142	0.636	0.217	0.711	**0.853**
		Left Tilt	0.017	0.077	0.473	0.094	0.490	0.567
		Right Tilt	0.014	0.183	0.619	0.197	0.633	0.816
	WCDMA 1900	Left Touch	0.028	0.077	0.575	0.105	0.603	0.680
		Right Touch	0.070	0.142	0.636	0.212	0.706	**0.848**
		Left Tilt	0.011	0.077	0.473	0.088	0.484	0.561
		Right Tilt	0.011	0.183	0.619	0.194	0.630	0.813
	LTE Band 12	Left Touch	0.165	0.077	0.575	0.242	0.740	0.817
		Right Touch	0.208	0.142	0.636	0.350	0.844	**0.986**
		Left Tilt	0.072	0.077	0.473	0.149	0.545	0.622
		Right Tilt	0.107	0.183	0.619	0.290	0.726	0.909
	LTE Band 13	Left Touch	0.137	0.077	0.575	0.214	0.712	0.789
		Right Touch	0.156	0.142	0.636	0.298	0.792	**0.934**
		Left Tilt	0.073	0.077	0.473	0.150	0.546	0.623
		Right Tilt	0.103	0.183	0.619	0.286	0.722	0.905
	LTE Band 26	Left Touch	0.142	0.077	0.575	0.219	0.717	0.794
		Right Touch	0.163	0.142	0.636	0.305	0.799	**0.941**
		Left Tilt	0.071	0.077	0.473	0.148	0.544	0.621
		Right Tilt	0.079	0.183	0.619	0.262	0.698	0.881
	LTE Band 5	Left Touch	0.168	0.077	0.575	0.245	0.743	0.820
		Right Touch	0.132	0.142	0.636	0.274	0.768	**0.910**
		Left Tilt	0.063	0.077	0.473	0.140	0.536	0.613
		Right Tilt	0.064	0.183	0.619	0.247	0.683	0.866
	LTE Band 66	Left Touch	0.042	0.077	0.575	0.119	0.617	0.694
		Right Touch	0.081	0.142	0.636	0.223	0.717	**0.859**
		Left Tilt	0.025	0.077	0.473	0.102	0.498	0.575
		Right Tilt	0.016	0.183	0.619	0.199	0.635	0.818
	LTE Band 2	Left Touch	0.030	0.077	0.575	0.107	0.605	0.682
		Right Touch	0.071	0.142	0.636	0.213	0.707	**0.849**
		Left Tilt	0.015	0.077	0.473	0.092	0.488	0.565
		Right Tilt	0.016	0.183	0.619	0.199	0.635	0.818
	LTE Band 7	Left Touch	0.178	0.077	0.575	0.255	0.753	0.830
		Right Touch	0.115	0.142	0.636	0.257	0.751	0.893
		Left Tilt	0.188	0.077	0.473	0.265	0.661	0.738
		Right Tilt	0.217	0.183	0.619	0.400	0.836	**1.019**
	LTE Band 41	Left Touch	0.104	0.077	0.575	0.181	0.679	0.756
		Right Touch	0.074	0.142	0.636	0.216	0.710	0.852
		Left Tilt	0.028	0.077	0.473	0.105	0.501	0.578
		Right Tilt	0.066	0.183	0.619	0.249	0.685	**0.868**

Table 12.4.10 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.6G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.551	0.180	0.654	0.731
		Right Touch	0.092	0.142	1.094	0.234	1.186	**1.328**
		Left Tilt	0.036	0.077	0.462	0.113	0.498	0.575
		Right Tilt	0.038	0.183	1.025	0.221	1.063	1.246
	GPRS 850	Left Touch	0.145	0.077	0.551	0.222	0.696	0.773
		Right Touch	0.131	0.142	1.094	0.273	1.225	**1.367**
		Left Tilt	0.048	0.077	0.462	0.125	0.510	0.587
		Right Tilt	0.063	0.183	1.025	0.246	1.088	1.271
	GSM 1900	Left Touch	0.013	0.077	0.551	0.090	0.564	0.641
		Right Touch	0.032	0.142	1.094	0.174	1.126	**1.268**
		Left Tilt	0.006	0.077	0.462	0.083	0.468	0.545
		Right Tilt	0.003	0.183	1.025	0.186	1.028	1.211
	GPRS 1900	Left Touch	0.020	0.077	0.551	0.097	0.571	0.648
		Right Touch	0.044	0.142	1.094	0.186	1.138	**1.280**
		Left Tilt	0.008	0.077	0.462	0.085	0.470	0.547
		Right Tilt	0.004	0.183	1.025	0.187	1.029	1.212
	WCDMA 850	Left Touch	0.141	0.077	0.551	0.218	0.692	0.769
		Right Touch	0.132	0.142	1.094	0.274	1.226	**1.368**
		Left Tilt	0.055	0.077	0.462	0.132	0.517	0.594
		Right Tilt	0.069	0.183	1.025	0.252	1.094	1.277
	WCDMA 1700	Left Touch	0.036	0.077	0.551	0.113	0.587	0.664
		Right Touch	0.075	0.142	1.094	0.217	1.169	**1.311**
		Left Tilt	0.017	0.077	0.462	0.094	0.479	0.556
		Right Tilt	0.014	0.183	1.025	0.197	1.039	1.222
	WCDMA 1900	Left Touch	0.028	0.077	0.551	0.105	0.579	0.656
		Right Touch	0.070	0.142	1.094	0.212	1.164	**1.306**
		Left Tilt	0.011	0.077	0.462	0.088	0.473	0.550
		Right Tilt	0.011	0.183	1.025	0.194	1.036	1.219
	LTE Band 12	Left Touch	0.165	0.077	0.551	0.242	0.716	0.793
		Right Touch	0.208	0.142	1.094	0.350	1.302	**1.444**
		Left Tilt	0.072	0.077	0.462	0.149	0.534	0.611
		Right Tilt	0.107	0.183	1.025	0.290	1.132	1.315
	LTE Band 13	Left Touch	0.137	0.077	0.551	0.214	0.688	0.765
		Right Touch	0.156	0.142	1.094	0.298	1.250	**1.392**
		Left Tilt	0.073	0.077	0.462	0.150	0.535	0.612
		Right Tilt	0.103	0.183	1.025	0.286	1.128	1.311
	LTE Band 26	Left Touch	0.142	0.077	0.551	0.219	0.693	0.770
		Right Touch	0.163	0.142	1.094	0.305	1.257	**1.399**
		Left Tilt	0.071	0.077	0.462	0.148	0.533	0.610
		Right Tilt	0.079	0.183	1.025	0.262	1.104	1.287
	LTE Band 5	Left Touch	0.168	0.077	0.551	0.245	0.719	0.796
		Right Touch	0.132	0.142	1.094	0.274	1.226	**1.368**
		Left Tilt	0.063	0.077	0.462	0.140	0.525	0.602
		Right Tilt	0.064	0.183	1.025	0.247	1.089	1.272
	LTE Band 66	Left Touch	0.042	0.077	0.551	0.119	0.593	0.670
		Right Touch	0.081	0.142	1.094	0.223	1.175	**1.317**
		Left Tilt	0.025	0.077	0.462	0.102	0.487	0.564
		Right Tilt	0.016	0.183	1.025	0.199	1.041	1.224
	LTE Band 2	Left Touch	0.030	0.077	0.551	0.107	0.581	0.658
		Right Touch	0.071	0.142	1.094	0.213	1.165	**1.307**
		Left Tilt	0.015	0.077	0.462	0.092	0.477	0.554
		Right Tilt	0.016	0.183	1.025	0.199	1.041	1.224
	LTE Band 7	Left Touch	0.178	0.077	0.551	0.255	0.729	0.806
		Right Touch	0.115	0.142	1.094	0.257	1.209	1.351
		Left Tilt	0.188	0.077	0.462	0.265	0.650	0.727
		Right Tilt	0.217	0.183	1.025	0.400	1.242	**1.425**
	LTE Band 41	Left Touch	0.104	0.077	0.551	0.181	0.655	0.732
		Right Touch	0.074	0.142	1.094	0.216	1.168	**1.310**
		Left Tilt	0.028	0.077	0.462	0.105	0.490	0.567
		Right Tilt	0.066	0.183	1.025	0.249	1.091	1.274

Table 12.4.11 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.209	0.180	0.312	0.389
		Right Touch	0.092	0.142	0.607	0.234	0.699	**0.841**
		Left Tilt	0.036	0.077	0.060	0.113	0.096	0.173
		Right Tilt	0.038	0.183	0.189	0.221	0.227	0.410
	GPRS 850	Left Touch	0.145	0.077	0.209	0.222	0.354	0.431
		Right Touch	0.131	0.142	0.607	0.273	0.738	**0.880**
		Left Tilt	0.048	0.077	0.060	0.125	0.108	0.185
		Right Tilt	0.063	0.183	0.189	0.246	0.252	0.435
	GSM 1900	Left Touch	0.013	0.077	0.209	0.090	0.222	0.299
		Right Touch	0.032	0.142	0.607	0.174	0.639	**0.781**
		Left Tilt	0.006	0.077	0.060	0.083	0.066	0.143
		Right Tilt	0.003	0.183	0.189	0.186	0.192	0.375
	GPRS 1900	Left Touch	0.020	0.077	0.209	0.097	0.229	0.306
		Right Touch	0.044	0.142	0.607	0.186	0.651	**0.793**
		Left Tilt	0.008	0.077	0.060	0.085	0.068	0.145
		Right Tilt	0.004	0.183	0.189	0.187	0.193	0.376
	WCDMA 850	Left Touch	0.141	0.077	0.209	0.218	0.350	0.427
		Right Touch	0.132	0.142	0.607	0.274	0.739	**0.881**
		Left Tilt	0.055	0.077	0.060	0.132	0.115	0.192
		Right Tilt	0.069	0.183	0.189	0.252	0.258	0.441
	WCDMA 1700	Left Touch	0.036	0.077	0.209	0.113	0.245	0.322
		Right Touch	0.075	0.142	0.607	0.217	0.682	**0.824**
		Left Tilt	0.017	0.077	0.060	0.094	0.077	0.154
		Right Tilt	0.014	0.183	0.189	0.197	0.203	0.386
	WCDMA 1900	Left Touch	0.028	0.077	0.209	0.105	0.237	0.314
		Right Touch	0.070	0.142	0.607	0.212	0.677	**0.819**
		Left Tilt	0.011	0.077	0.060	0.088	0.071	0.148
		Right Tilt	0.011	0.183	0.189	0.194	0.200	0.383
	LTE Band 12	Left Touch	0.165	0.077	0.209	0.242	0.374	0.451
		Right Touch	0.208	0.142	0.607	0.350	0.815	**0.957**
		Left Tilt	0.072	0.077	0.060	0.149	0.132	0.209
		Right Tilt	0.107	0.183	0.189	0.290	0.296	0.479
	LTE Band 13	Left Touch	0.137	0.077	0.209	0.214	0.346	0.423
		Right Touch	0.156	0.142	0.607	0.298	0.763	**0.905**
		Left Tilt	0.073	0.077	0.060	0.150	0.133	0.210
		Right Tilt	0.103	0.183	0.189	0.286	0.292	0.475
	LTE Band 26	Left Touch	0.142	0.077	0.209	0.219	0.351	0.428
		Right Touch	0.163	0.142	0.607	0.305	0.770	**0.912**
		Left Tilt	0.071	0.077	0.060	0.148	0.131	0.208
		Right Tilt	0.079	0.183	0.189	0.262	0.268	0.451
	LTE Band 5	Left Touch	0.168	0.077	0.209	0.245	0.377	0.454
		Right Touch	0.132	0.142	0.607	0.274	0.739	**0.881**
		Left Tilt	0.063	0.077	0.060	0.140	0.123	0.200
		Right Tilt	0.064	0.183	0.189	0.247	0.253	0.436
	LTE Band 66	Left Touch	0.042	0.077	0.209	0.119	0.251	0.328
		Right Touch	0.081	0.142	0.607	0.223	0.688	**0.830**
		Left Tilt	0.025	0.077	0.060	0.102	0.085	0.162
		Right Tilt	0.016	0.183	0.189	0.199	0.205	0.388
	LTE Band 2	Left Touch	0.030	0.077	0.209	0.107	0.239	0.316
		Right Touch	0.071	0.142	0.607	0.213	0.678	**0.820**
		Left Tilt	0.015	0.077	0.060	0.092	0.075	0.152
		Right Tilt	0.016	0.183	0.189	0.199	0.205	0.388
	LTE Band 7	Left Touch	0.178	0.077	0.209	0.255	0.387	0.464
		Right Touch	0.115	0.142	0.607	0.257	0.722	**0.864**
		Left Tilt	0.188	0.077	0.060	0.265	0.248	0.325
		Right Tilt	0.217	0.183	0.189	0.400	0.406	0.589
	LTE Band 41	Left Touch	0.104	0.077	0.209	0.181	0.313	0.390
		Right Touch	0.074	0.142	0.607	0.216	0.681	**0.823**
		Left Tilt	0.028	0.077	0.060	0.105	0.088	0.165
		Right Tilt	0.066	0.183	0.189	0.249	0.255	0.438

Table 12.4.12 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Head SAR	GSM 850	Left Touch	0.103	0.077	0.577	0.180	0.680	0.757
		Right Touch	0.092	0.142	1.161	0.234	1.253	1.395
		Left Tilt	0.036	0.077	0.497	0.113	0.533	0.610
		Right Tilt	0.038	0.183	1.194	0.221	1.232	**1.415**
	GPRS 850	Left Touch	0.145	0.077	0.577	0.222	0.722	0.799
		Right Touch	0.131	0.142	1.161	0.273	1.292	1.434
		Left Tilt	0.048	0.077	0.497	0.125	0.545	0.622
		Right Tilt	0.063	0.183	1.194	0.246	1.257	**1.440**
	GSM 1900	Left Touch	0.013	0.077	0.577	0.090	0.590	0.667
		Right Touch	0.032	0.142	1.161	0.174	1.193	1.335
		Left Tilt	0.006	0.077	0.497	0.083	0.503	0.580
		Right Tilt	0.003	0.183	1.194	0.186	1.197	**1.380**
	GPRS 1900	Left Touch	0.020	0.077	0.577	0.097	0.597	0.674
		Right Touch	0.044	0.142	1.161	0.186	1.205	1.347
		Left Tilt	0.008	0.077	0.497	0.085	0.505	0.582
		Right Tilt	0.004	0.183	1.194	0.187	1.198	**1.381**
	WCDMA 850	Left Touch	0.141	0.077	0.577	0.218	0.718	0.795
		Right Touch	0.132	0.142	1.161	0.274	1.293	1.435
		Left Tilt	0.055	0.077	0.497	0.132	0.552	0.629
		Right Tilt	0.069	0.183	1.194	0.252	1.263	**1.446**
	WCDMA 1700	Left Touch	0.036	0.077	0.577	0.113	0.613	0.690
		Right Touch	0.075	0.142	1.161	0.217	1.236	1.378
		Left Tilt	0.017	0.077	0.497	0.094	0.514	0.591
		Right Tilt	0.014	0.183	1.194	0.197	1.208	**1.391**
	WCDMA 1900	Left Touch	0.028	0.077	0.577	0.105	0.605	0.682
		Right Touch	0.070	0.142	1.161	0.212	1.231	1.373
		Left Tilt	0.011	0.077	0.497	0.088	0.508	0.585
		Right Tilt	0.011	0.183	1.194	0.194	1.205	**1.388**
	LTE Band 12	Left Touch	0.165	0.077	0.577	0.242	0.742	0.819
		Right Touch	0.208	0.142	1.161	0.350	1.369	**1.511**
		Left Tilt	0.072	0.077	0.497	0.149	0.569	0.646
		Right Tilt	0.107	0.183	1.194	0.290	1.301	1.484
	LTE Band 13	Left Touch	0.137	0.077	0.577	0.214	0.714	0.791
		Right Touch	0.156	0.142	1.161	0.298	1.317	1.459
		Left Tilt	0.073	0.077	0.497	0.150	0.570	0.647
		Right Tilt	0.103	0.183	1.194	0.286	1.297	**1.480**
	LTE Band 26	Left Touch	0.142	0.077	0.577	0.219	0.719	0.796
		Right Touch	0.163	0.142	1.161	0.305	1.324	**1.466**
		Left Tilt	0.071	0.077	0.497	0.148	0.568	0.645
		Right Tilt	0.079	0.183	1.194	0.262	1.273	1.456
	LTE Band 5	Left Touch	0.168	0.077	0.577	0.245	0.745	0.822
		Right Touch	0.132	0.142	1.161	0.274	1.293	1.435
		Left Tilt	0.063	0.077	0.497	0.140	0.560	0.637
		Right Tilt	0.064	0.183	1.194	0.247	1.258	**1.441**
	LTE Band 66	Left Touch	0.042	0.077	0.577	0.119	0.619	0.696
		Right Touch	0.081	0.142	1.161	0.223	1.242	1.384
		Left Tilt	0.025	0.077	0.497	0.102	0.522	0.599
		Right Tilt	0.016	0.183	1.194	0.199	1.210	**1.393**
	LTE Band 2	Left Touch	0.030	0.077	0.577	0.107	0.607	0.684
		Right Touch	0.071	0.142	1.161	0.213	1.232	1.374
		Left Tilt	0.015	0.077	0.497	0.092	0.512	0.589
		Right Tilt	0.016	0.183	1.194	0.199	1.210	**1.393**
	LTE Band 7	Left Touch	0.178	0.077	0.577	0.255	0.755	0.832
		Right Touch	0.115	0.142	1.161	0.257	1.276	1.418
		Left Tilt	0.188	0.077	0.497	0.265	0.685	0.762
		Right Tilt	**0.217**	**0.183**	**1.194**	**0.400**	**1.411**	1.594
	LTE Band 41	Left Touch	0.104	0.077	0.577	0.181	0.681	0.758
		Right Touch	0.074	0.142	1.161	0.216	1.235	1.377
		Left Tilt	0.028	0.077	0.497	0.105	0.525	0.602
		Right Tilt	0.066	0.183	1.194	0.249	1.260	**1.443**

Table 12.4.13 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.525	0.628
		Right Touch	0.092	0.970	1.062
		Left Tilt	0.036	0.627	0.663
		Right Tilt	0.038	1.073	**1.111**
	GPRS 850	Left Touch	0.145	0.525	0.670
		Right Touch	0.131	0.970	1.101
		Left Tilt	0.048	0.627	0.675
		Right Tilt	0.063	1.073	**1.136**
	GSM 1900	Left Touch	0.013	0.525	0.538
		Right Touch	0.032	0.970	1.002
		Left Tilt	0.006	0.627	0.633
		Right Tilt	0.003	1.073	**1.076**
	GPRS 1900	Left Touch	0.020	0.525	0.545
		Right Touch	0.044	0.970	1.014
		Left Tilt	0.008	0.627	0.635
		Right Tilt	0.004	1.073	**1.077**
	WCDMA 850	Left Touch	0.141	0.525	0.666
		Right Touch	0.132	0.970	1.102
		Left Tilt	0.055	0.627	0.682
		Right Tilt	0.069	1.073	**1.142**
	WCDMA 1700	Left Touch	0.036	0.525	0.561
		Right Touch	0.075	0.970	1.045
		Left Tilt	0.017	0.627	0.644
		Right Tilt	0.014	1.073	**1.087**
	WCDMA 1900	Left Touch	0.028	0.525	0.553
		Right Touch	0.070	0.970	1.040
		Left Tilt	0.011	0.627	0.638
		Right Tilt	0.011	1.073	**1.084**
	LTE Band 12	Left Touch	0.165	0.525	0.690
		Right Touch	0.208	0.970	1.178
		Left Tilt	0.072	0.627	0.699
		Right Tilt	0.107	1.073	**1.180**
	LTE Band 13	Left Touch	0.137	0.525	0.662
		Right Touch	0.156	0.970	1.126
		Left Tilt	0.073	0.627	0.700
		Right Tilt	0.103	1.073	**1.176**
	LTE Band 26	Left Touch	0.142	0.525	0.667
		Right Touch	0.163	0.970	1.133
		Left Tilt	0.071	0.627	0.698
		Right Tilt	0.079	1.073	**1.152**
	LTE Band 5	Left Touch	0.168	0.525	0.693
		Right Touch	0.132	0.970	1.102
		Left Tilt	0.063	0.627	0.690
		Right Tilt	0.064	1.073	**1.137**
	LTE Band 66	Left Touch	0.042	0.525	0.567
		Right Touch	0.081	0.970	1.051
		Left Tilt	0.025	0.627	0.652
		Right Tilt	0.016	1.073	**1.089**
	LTE Band 2	Left Touch	0.030	0.525	0.555
		Right Touch	0.071	0.970	1.041
		Left Tilt	0.015	0.627	0.642
		Right Tilt	0.016	1.073	**1.089**
	LTE Band 7	Left Touch	0.178	0.525	0.703
		Right Touch	0.115	0.970	1.085
		Left Tilt	0.188	0.627	0.815
		Right Tilt	0.217	1.073	**1.290**
	LTE Band 41	Left Touch	0.104	0.525	0.629
		Right Touch	0.074	0.970	1.044
		Left Tilt	0.028	0.627	0.655
		Right Tilt	0.066	1.073	**1.139**

Table 12.4.14 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.050	0.153
		Right Touch	0.092	0.161	**0.253**
		Left Tilt	0.036	0.021	0.057
		Right Tilt	0.038	0.056	0.094
	GPRS 850	Left Touch	0.145	0.050	0.195
		Right Touch	0.131	0.161	**0.292**
		Left Tilt	0.048	0.021	0.069
		Right Tilt	0.063	0.056	0.119
	GSM 1900	Left Touch	0.013	0.050	0.063
		Right Touch	0.032	0.161	**0.193**
		Left Tilt	0.006	0.021	0.027
		Right Tilt	0.003	0.056	0.059
	GPRS 1900	Left Touch	0.020	0.050	0.070
		Right Touch	0.044	0.161	**0.205**
		Left Tilt	0.008	0.021	0.029
		Right Tilt	0.004	0.056	0.060
	WCDMA 850	Left Touch	0.141	0.050	0.191
		Right Touch	0.132	0.161	**0.293**
		Left Tilt	0.055	0.021	0.076
		Right Tilt	0.069	0.056	0.125
	WCDMA 1700	Left Touch	0.036	0.050	0.086
		Right Touch	0.075	0.161	**0.236**
		Left Tilt	0.017	0.021	0.038
		Right Tilt	0.014	0.056	0.070
	WCDMA 1900	Left Touch	0.028	0.050	0.078
		Right Touch	0.070	0.161	**0.231**
		Left Tilt	0.011	0.021	0.032
		Right Tilt	0.011	0.056	0.067
	LTE Band 12	Left Touch	0.165	0.050	0.215
		Right Touch	0.208	0.161	**0.369**
		Left Tilt	0.072	0.021	0.093
		Right Tilt	0.107	0.056	0.163
	LTE Band 13	Left Touch	0.137	0.050	0.187
		Right Touch	0.156	0.161	**0.317**
		Left Tilt	0.073	0.021	0.094
		Right Tilt	0.103	0.056	0.159
	LTE Band 26	Left Touch	0.142	0.050	0.192
		Right Touch	0.163	0.161	**0.324**
		Left Tilt	0.071	0.021	0.092
		Right Tilt	0.079	0.056	0.135
	LTE Band 5	Left Touch	0.168	0.050	0.218
		Right Touch	0.132	0.161	**0.293**
		Left Tilt	0.063	0.021	0.084
		Right Tilt	0.064	0.056	0.120
	LTE Band 66	Left Touch	0.042	0.050	0.092
		Right Touch	0.081	0.161	**0.242**
		Left Tilt	0.025	0.021	0.046
		Right Tilt	0.016	0.056	0.072
	LTE Band 2	Left Touch	0.030	0.050	0.080
		Right Touch	0.071	0.161	**0.232**
		Left Tilt	0.015	0.021	0.036
		Right Tilt	0.016	0.056	0.072
	LTE Band 7	Left Touch	0.178	0.050	0.228
		Right Touch	0.115	0.161	**0.276**
		Left Tilt	0.188	0.021	0.209
		Right Tilt	0.217	0.056	0.273
	LTE Band 41	Left Touch	0.104	0.050	0.154
		Right Touch	0.074	0.161	**0.235**
		Left Tilt	0.028	0.021	0.049
		Right Tilt	0.066	0.056	0.122

Table 12.4.15 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.463	0.566
		Right Touch	0.092	0.939	**1.031**
		Left Tilt	0.036	0.525	0.561
		Right Tilt	0.038	0.942	0.980
	GPRS 850	Left Touch	0.145	0.463	0.608
		Right Touch	0.131	0.939	**1.070**
		Left Tilt	0.048	0.525	0.573
		Right Tilt	0.063	0.942	1.005
	GSM 1900	Left Touch	0.013	0.463	0.476
		Right Touch	0.032	0.939	**0.971**
		Left Tilt	0.006	0.525	0.531
		Right Tilt	0.003	0.942	0.945
	GPRS 1900	Left Touch	0.020	0.463	0.483
		Right Touch	0.044	0.939	**0.983**
		Left Tilt	0.008	0.525	0.533
		Right Tilt	0.004	0.942	0.946
	WCDMA 850	Left Touch	0.141	0.463	0.604
		Right Touch	0.132	0.939	**1.071**
		Left Tilt	0.055	0.525	0.580
		Right Tilt	0.069	0.942	1.011
	WCDMA 1700	Left Touch	0.036	0.463	0.499
		Right Touch	0.075	0.939	**1.014**
		Left Tilt	0.017	0.525	0.542
		Right Tilt	0.014	0.942	0.956
	WCDMA 1900	Left Touch	0.028	0.463	0.491
		Right Touch	0.070	0.939	**1.009**
		Left Tilt	0.011	0.525	0.536
		Right Tilt	0.011	0.942	0.953
	LTE Band 12	Left Touch	0.165	0.463	0.628
		Right Touch	0.208	0.939	**1.147**
		Left Tilt	0.072	0.525	0.597
		Right Tilt	0.107	0.942	1.049
	LTE Band 13	Left Touch	0.137	0.463	0.600
		Right Touch	0.156	0.939	**1.095**
		Left Tilt	0.073	0.525	0.598
		Right Tilt	0.103	0.942	1.045
	LTE Band 26	Left Touch	0.142	0.463	0.605
		Right Touch	0.163	0.939	**1.102**
		Left Tilt	0.071	0.525	0.596
		Right Tilt	0.079	0.942	1.021
	LTE Band 5	Left Touch	0.168	0.463	0.631
		Right Touch	0.132	0.939	**1.071**
		Left Tilt	0.063	0.525	0.588
		Right Tilt	0.064	0.942	1.006
	LTE Band 66	Left Touch	0.042	0.463	0.505
		Right Touch	0.081	0.939	**1.020**
		Left Tilt	0.025	0.525	0.550
		Right Tilt	0.016	0.942	0.958
	LTE Band 2	Left Touch	0.030	0.463	0.493
		Right Touch	0.071	0.939	**1.010**
		Left Tilt	0.015	0.525	0.540
		Right Tilt	0.016	0.942	0.958
	LTE Band 7	Left Touch	0.178	0.463	0.641
		Right Touch	0.115	0.939	1.054
		Left Tilt	0.188	0.525	0.713
		Right Tilt	0.217	0.942	**1.159**
	LTE Band 41	Left Touch	0.104	0.463	0.567
		Right Touch	0.074	0.939	**1.013**
		Left Tilt	0.028	0.525	0.553
		Right Tilt	0.066	0.942	1.008

Table 12.4.16 Simultaneous Transmission Scenario : 2G/3G/4G + 5.3 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.3G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.350	0.453
		Right Touch	0.092	0.467	**0.559**
		Left Tilt	0.036	0.317	0.353
		Right Tilt	0.038	0.479	0.517
	GPRS 850	Left Touch	0.145	0.350	0.495
		Right Touch	0.131	0.467	**0.598**
		Left Tilt	0.048	0.317	0.365
		Right Tilt	0.063	0.479	0.542
	GSM 1900	Left Touch	0.013	0.350	0.363
		Right Touch	0.032	0.467	**0.499**
		Left Tilt	0.006	0.317	0.323
		Right Tilt	0.003	0.479	0.482
	GPRS 1900	Left Touch	0.020	0.350	0.370
		Right Touch	0.044	0.467	**0.511**
		Left Tilt	0.008	0.317	0.325
		Right Tilt	0.004	0.479	0.483
	WCDMA 850	Left Touch	0.141	0.350	0.491
		Right Touch	0.132	0.467	**0.599**
		Left Tilt	0.055	0.317	0.372
		Right Tilt	0.069	0.479	0.548
	WCDMA 1700	Left Touch	0.036	0.350	0.386
		Right Touch	0.075	0.467	**0.542**
		Left Tilt	0.017	0.317	0.334
		Right Tilt	0.014	0.479	0.493
	WCDMA 1900	Left Touch	0.028	0.350	0.378
		Right Touch	0.070	0.467	**0.537**
		Left Tilt	0.011	0.317	0.328
		Right Tilt	0.011	0.479	0.490
	LTE Band 12	Left Touch	0.165	0.350	0.515
		Right Touch	0.208	0.467	**0.675**
		Left Tilt	0.072	0.317	0.389
		Right Tilt	0.107	0.479	0.586
	LTE Band 13	Left Touch	0.137	0.350	0.487
		Right Touch	0.156	0.467	**0.623**
		Left Tilt	0.073	0.317	0.390
		Right Tilt	0.103	0.479	0.582
	LTE Band 26	Left Touch	0.142	0.350	0.492
		Right Touch	0.163	0.467	**0.630**
		Left Tilt	0.071	0.317	0.388
		Right Tilt	0.079	0.479	0.558
	LTE Band 5	Left Touch	0.168	0.350	0.518
		Right Touch	0.132	0.467	**0.599**
		Left Tilt	0.063	0.317	0.380
		Right Tilt	0.064	0.479	0.543
	LTE Band 66	Left Touch	0.042	0.350	0.392
		Right Touch	0.081	0.467	**0.548**
		Left Tilt	0.025	0.317	0.342
		Right Tilt	0.016	0.479	0.495
	LTE Band 2	Left Touch	0.030	0.350	0.380
		Right Touch	0.071	0.467	**0.538**
		Left Tilt	0.015	0.317	0.332
		Right Tilt	0.016	0.479	0.495
	LTE Band 7	Left Touch	0.178	0.350	0.528
		Right Touch	0.115	0.467	0.582
		Left Tilt	0.188	0.317	0.505
		Right Tilt	0.217	0.479	**0.696**
	LTE Band 41	Left Touch	0.104	0.350	0.454
		Right Touch	0.074	0.467	0.541
		Left Tilt	0.028	0.317	0.345
		Right Tilt	0.066	0.479	**0.545**

Table 12.4.17 Simultaneous Transmission Scenario : 2G/3G/4G + 5.3 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.3G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.521	0.624
		Right Touch	0.092	0.543	**0.635**
		Left Tilt	0.036	0.055	0.091
		Right Tilt	0.038	0.107	0.145
	GPRS 850	Left Touch	0.145	0.521	0.666
		Right Touch	0.131	0.543	**0.674**
		Left Tilt	0.048	0.055	0.103
		Right Tilt	0.063	0.107	0.170
	GSM 1900	Left Touch	0.013	0.521	0.534
		Right Touch	0.032	0.543	**0.575**
		Left Tilt	0.006	0.055	0.061
		Right Tilt	0.003	0.107	0.110
	GPRS 1900	Left Touch	0.020	0.521	0.541
		Right Touch	0.044	0.543	**0.587**
		Left Tilt	0.008	0.055	0.063
		Right Tilt	0.004	0.107	0.111
	WCDMA 850	Left Touch	0.141	0.521	0.662
		Right Touch	0.132	0.543	**0.675**
		Left Tilt	0.055	0.055	0.110
		Right Tilt	0.069	0.107	0.176
	WCDMA 1700	Left Touch	0.036	0.521	0.557
		Right Touch	0.075	0.543	**0.618**
		Left Tilt	0.017	0.055	0.072
		Right Tilt	0.014	0.107	0.121
	WCDMA 1900	Left Touch	0.028	0.521	0.549
		Right Touch	0.070	0.543	**0.613**
		Left Tilt	0.011	0.055	0.066
		Right Tilt	0.011	0.107	0.118
	LTE Band 12	Left Touch	0.165	0.521	0.686
		Right Touch	0.208	0.543	**0.751**
		Left Tilt	0.072	0.055	0.127
		Right Tilt	0.107	0.107	0.214
	LTE Band 13	Left Touch	0.137	0.521	0.658
		Right Touch	0.156	0.543	**0.699**
		Left Tilt	0.073	0.055	0.128
		Right Tilt	0.103	0.107	0.210
	LTE Band 26	Left Touch	0.142	0.521	0.663
		Right Touch	0.163	0.543	**0.706**
		Left Tilt	0.071	0.055	0.126
		Right Tilt	0.079	0.107	0.186
	LTE Band 5	Left Touch	0.168	0.521	**0.689**
		Right Touch	0.132	0.543	0.675
		Left Tilt	0.063	0.055	0.118
		Right Tilt	0.064	0.107	0.171
	LTE Band 66	Left Touch	0.042	0.521	0.563
		Right Touch	0.081	0.543	**0.624**
		Left Tilt	0.025	0.055	0.080
		Right Tilt	0.016	0.107	0.123
	LTE Band 2	Left Touch	0.030	0.521	0.551
		Right Touch	0.071	0.543	**0.614**
		Left Tilt	0.015	0.055	0.070
		Right Tilt	0.016	0.107	0.123
	LTE Band 7	Left Touch	0.178	0.521	**0.699**
		Right Touch	0.115	0.543	0.658
		Left Tilt	0.188	0.055	0.243
		Right Tilt	0.217	0.107	0.324
	LTE Band 41	Left Touch	0.104	0.521	**0.625**
		Right Touch	0.074	0.543	0.617
		Left Tilt	0.028	0.055	0.083
		Right Tilt	0.066	0.107	0.173

Table 12.4.18 Simultaneous Transmission Scenario: 2G/3G/4G + 5.3 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.3G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.613	**0.716**
		Right Touch	0.092	0.561	0.653
		Left Tilt	0.036	0.399	0.435
		Right Tilt	0.038	0.574	0.612
	GPRS 850	Left Touch	0.145	0.613	**0.758**
		Right Touch	0.131	0.561	0.692
		Left Tilt	0.048	0.399	0.447
		Right Tilt	0.063	0.574	0.637
	GSM 1900	Left Touch	0.013	0.613	**0.626**
		Right Touch	0.032	0.561	0.593
		Left Tilt	0.006	0.399	0.405
		Right Tilt	0.003	0.574	0.577
	GPRS 1900	Left Touch	0.020	0.613	**0.633**
		Right Touch	0.044	0.561	0.605
		Left Tilt	0.008	0.399	0.407
		Right Tilt	0.004	0.574	0.578
	WCDMA 850	Left Touch	0.141	0.613	**0.754**
		Right Touch	0.132	0.561	0.693
		Left Tilt	0.055	0.399	0.454
		Right Tilt	0.069	0.574	0.643
	WCDMA 1700	Left Touch	0.036	0.613	**0.649**
		Right Touch	0.075	0.561	0.636
		Left Tilt	0.017	0.399	0.416
		Right Tilt	0.014	0.574	0.588
	WCDMA 1900	Left Touch	0.028	0.613	**0.641**
		Right Touch	0.070	0.561	0.631
		Left Tilt	0.011	0.399	0.410
		Right Tilt	0.011	0.574	0.585
	LTE Band 12	Left Touch	0.165	0.613	**0.778**
		Right Touch	0.208	0.561	0.769
		Left Tilt	0.072	0.399	0.471
		Right Tilt	0.107	0.574	0.681
	LTE Band 13	Left Touch	0.137	0.613	**0.750**
		Right Touch	0.156	0.561	0.717
		Left Tilt	0.073	0.399	0.472
		Right Tilt	0.103	0.574	0.677
	LTE Band 26	Left Touch	0.142	0.613	**0.755**
		Right Touch	0.163	0.561	0.724
		Left Tilt	0.071	0.399	0.470
		Right Tilt	0.079	0.574	0.653
	LTE Band 5	Left Touch	0.168	0.613	**0.781**
		Right Touch	0.132	0.561	0.693
		Left Tilt	0.063	0.399	0.462
		Right Tilt	0.064	0.574	0.638
	LTE Band 66	Left Touch	0.042	0.613	**0.655**
		Right Touch	0.081	0.561	0.642
		Left Tilt	0.025	0.399	0.424
		Right Tilt	0.016	0.574	0.590
	LTE Band 2	Left Touch	0.030	0.613	**0.643**
		Right Touch	0.071	0.561	0.632
		Left Tilt	0.015	0.399	0.414
		Right Tilt	0.016	0.574	0.590
	LTE Band 7	Left Touch	0.178	0.613	**0.791**
		Right Touch	0.115	0.561	0.676
		Left Tilt	0.188	0.399	0.587
		Right Tilt	0.217	0.574	**0.791**
	LTE Band 41	Left Touch	0.104	0.613	**0.717**
		Right Touch	0.074	0.561	0.635
		Left Tilt	0.028	0.399	0.427
		Right Tilt	0.066	0.574	0.640

Table 12.4.19 Simultaneous Transmission Scenario : 2G/3G/4G + 5.6 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.6G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.565	**0.668**
		Right Touch	0.092	0.397	0.489
		Left Tilt	0.036	0.414	0.450
		Right Tilt	0.038	0.406	0.444
	GPRS 850	Left Touch	0.145	0.565	**0.710**
		Right Touch	0.131	0.397	0.528
		Left Tilt	0.048	0.414	0.462
		Right Tilt	0.063	0.406	0.469
	GSM 1900	Left Touch	0.013	0.565	**0.578**
		Right Touch	0.032	0.397	0.429
		Left Tilt	0.006	0.414	0.420
		Right Tilt	0.003	0.406	0.409
	GPRS 1900	Left Touch	0.020	0.565	**0.585**
		Right Touch	0.044	0.397	0.441
		Left Tilt	0.008	0.414	0.422
		Right Tilt	0.004	0.406	0.410
	WCDMA 850	Left Touch	0.141	0.565	**0.706**
		Right Touch	0.132	0.397	0.529
		Left Tilt	0.055	0.414	0.469
		Right Tilt	0.069	0.406	0.475
	WCDMA 1700	Left Touch	0.036	0.565	**0.601**
		Right Touch	0.075	0.397	0.472
		Left Tilt	0.017	0.414	0.431
		Right Tilt	0.014	0.406	0.420
	WCDMA 1900	Left Touch	0.028	0.565	**0.593**
		Right Touch	0.070	0.397	0.467
		Left Tilt	0.011	0.414	0.425
		Right Tilt	0.011	0.406	0.417
	LTE Band 12	Left Touch	0.165	0.565	**0.730**
		Right Touch	0.208	0.397	0.605
		Left Tilt	0.072	0.414	0.486
		Right Tilt	0.107	0.406	0.513
	LTE Band 13	Left Touch	0.137	0.565	**0.702**
		Right Touch	0.156	0.397	0.553
		Left Tilt	0.073	0.414	0.487
		Right Tilt	0.103	0.406	0.509
	LTE Band 26	Left Touch	0.142	0.565	**0.707**
		Right Touch	0.163	0.397	0.560
		Left Tilt	0.071	0.414	0.485
		Right Tilt	0.079	0.406	0.485
	LTE Band 5	Left Touch	0.168	0.565	**0.733**
		Right Touch	0.132	0.397	0.529
		Left Tilt	0.063	0.414	0.477
		Right Tilt	0.064	0.406	0.470
	LTE Band 66	Left Touch	0.042	0.565	**0.607**
		Right Touch	0.081	0.397	0.478
		Left Tilt	0.025	0.414	0.439
		Right Tilt	0.016	0.406	0.422
	LTE Band 2	Left Touch	0.030	0.565	**0.595**
		Right Touch	0.071	0.397	0.468
		Left Tilt	0.015	0.414	0.429
		Right Tilt	0.016	0.406	0.422
	LTE Band 7	Left Touch	0.178	0.565	**0.743**
		Right Touch	0.115	0.397	0.512
		Left Tilt	0.188	0.414	0.602
		Right Tilt	0.217	0.406	0.623
	LTE Band 41	Left Touch	0.104	0.565	**0.669**
		Right Touch	0.074	0.397	0.471
		Left Tilt	0.028	0.414	0.442
		Right Tilt	0.066	0.406	0.472

Table 12.4.20 Simultaneous Transmission Scenario : 2G/3G/4G + 5.6 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.6G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.294	0.397
		Right Touch	0.092	0.549	**0.641**
		Left Tilt	0.036	0.084	0.120
		Right Tilt	0.038	0.146	0.184
	GPRS 850	Left Touch	0.145	0.294	0.439
		Right Touch	0.131	0.549	**0.680**
		Left Tilt	0.048	0.084	0.132
		Right Tilt	0.063	0.146	0.209
	GSM 1900	Left Touch	0.013	0.294	0.307
		Right Touch	0.032	0.549	**0.581**
		Left Tilt	0.006	0.084	0.090
		Right Tilt	0.003	0.146	0.149
	GPRS 1900	Left Touch	0.020	0.294	0.314
		Right Touch	0.044	0.549	**0.593**
		Left Tilt	0.008	0.084	0.092
		Right Tilt	0.004	0.146	0.150
	WCDMA 850	Left Touch	0.141	0.294	0.435
		Right Touch	0.132	0.549	**0.681**
		Left Tilt	0.055	0.084	0.139
		Right Tilt	0.069	0.146	0.215
	WCDMA 1700	Left Touch	0.036	0.294	0.330
		Right Touch	0.075	0.549	**0.624**
		Left Tilt	0.017	0.084	0.101
		Right Tilt	0.014	0.146	0.160
	WCDMA 1900	Left Touch	0.028	0.294	0.322
		Right Touch	0.070	0.549	**0.619**
		Left Tilt	0.011	0.084	0.095
		Right Tilt	0.011	0.146	0.157
	LTE Band 12	Left Touch	0.165	0.294	0.459
		Right Touch	0.208	0.549	**0.757**
		Left Tilt	0.072	0.084	0.156
		Right Tilt	0.107	0.146	0.253
	LTE Band 13	Left Touch	0.137	0.294	0.431
		Right Touch	0.156	0.549	**0.705**
		Left Tilt	0.073	0.084	0.157
		Right Tilt	0.103	0.146	0.249
	LTE Band 26	Left Touch	0.142	0.294	0.436
		Right Touch	0.163	0.549	**0.712**
		Left Tilt	0.071	0.084	0.155
		Right Tilt	0.079	0.146	0.225
	LTE Band 5	Left Touch	0.168	0.294	0.462
		Right Touch	0.132	0.549	**0.681**
		Left Tilt	0.063	0.084	0.147
		Right Tilt	0.064	0.146	0.210
	LTE Band 66	Left Touch	0.042	0.294	0.336
		Right Touch	0.081	0.549	**0.630**
		Left Tilt	0.025	0.084	0.109
		Right Tilt	0.016	0.146	0.162
	LTE Band 2	Left Touch	0.030	0.294	0.324
		Right Touch	0.071	0.549	**0.620**
		Left Tilt	0.015	0.084	0.099
		Right Tilt	0.016	0.146	0.162
	LTE Band 7	Left Touch	0.178	0.294	0.472
		Right Touch	0.115	0.549	**0.664**
		Left Tilt	0.188	0.084	0.272
		Right Tilt	0.217	0.146	0.363
	LTE Band 41	Left Touch	0.104	0.294	0.398
		Right Touch	0.074	0.549	**0.623**
		Left Tilt	0.028	0.084	0.112
		Right Tilt	0.066	0.146	0.212

Table 12.4.21 Simultaneous Transmission Scenario : 2G/3G/4G + 5.6 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.6G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.575	0.678
		Right Touch	0.092	0.636	**0.728**
		Left Tilt	0.036	0.473	0.509
		Right Tilt	0.038	0.619	0.657
	GPRS 850	Left Touch	0.145	0.575	0.720
		Right Touch	0.131	0.636	**0.767**
		Left Tilt	0.048	0.473	0.521
		Right Tilt	0.063	0.619	0.682
	GSM 1900	Left Touch	0.013	0.575	0.588
		Right Touch	0.032	0.636	**0.668**
		Left Tilt	0.006	0.473	0.479
		Right Tilt	0.003	0.619	0.622
	GPRS 1900	Left Touch	0.020	0.575	0.595
		Right Touch	0.044	0.636	**0.680**
		Left Tilt	0.008	0.473	0.481
		Right Tilt	0.004	0.619	0.623
	WCDMA 850	Left Touch	0.141	0.575	0.716
		Right Touch	0.132	0.636	**0.768**
		Left Tilt	0.055	0.473	0.528
		Right Tilt	0.069	0.619	0.688
	WCDMA 1700	Left Touch	0.036	0.575	0.611
		Right Touch	0.075	0.636	**0.711**
		Left Tilt	0.017	0.473	0.490
		Right Tilt	0.014	0.619	0.633
	WCDMA 1900	Left Touch	0.028	0.575	0.603
		Right Touch	0.070	0.636	**0.706**
		Left Tilt	0.011	0.473	0.484
		Right Tilt	0.011	0.619	0.630
	LTE Band 12	Left Touch	0.165	0.575	0.740
		Right Touch	0.208	0.636	**0.844**
		Left Tilt	0.072	0.473	0.545
		Right Tilt	0.107	0.619	0.726
	LTE Band 13	Left Touch	0.137	0.575	0.712
		Right Touch	0.156	0.636	**0.792**
		Left Tilt	0.073	0.473	0.546
		Right Tilt	0.103	0.619	0.722
	LTE Band 26	Left Touch	0.142	0.575	0.717
		Right Touch	0.163	0.636	**0.799**
		Left Tilt	0.071	0.473	0.544
		Right Tilt	0.079	0.619	0.698
	LTE Band 5	Left Touch	0.168	0.575	0.743
		Right Touch	0.132	0.636	**0.768**
		Left Tilt	0.063	0.473	0.536
		Right Tilt	0.064	0.619	0.683
	LTE Band 66	Left Touch	0.042	0.575	0.617
		Right Touch	0.081	0.636	**0.717**
		Left Tilt	0.025	0.473	0.498
		Right Tilt	0.016	0.619	0.635
	LTE Band 2	Left Touch	0.030	0.575	0.605
		Right Touch	0.071	0.636	**0.707**
		Left Tilt	0.015	0.473	0.488
		Right Tilt	0.016	0.619	0.635
	LTE Band 7	Left Touch	0.178	0.575	0.753
		Right Touch	0.115	0.636	0.751
		Left Tilt	0.188	0.473	0.661
		Right Tilt	0.217	0.619	**0.836**
	LTE Band 41	Left Touch	0.104	0.575	0.679
		Right Touch	0.074	0.636	**0.710**
		Left Tilt	0.028	0.473	0.501
		Right Tilt	0.066	0.619	0.685

Table 12.4.22 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.551	0.654
		Right Touch	0.092	1.094	**1.186**
		Left Tilt	0.036	0.462	0.498
		Right Tilt	0.038	1.025	1.063
	GPRS 850	Left Touch	0.145	0.551	0.696
		Right Touch	0.131	1.094	**1.225**
		Left Tilt	0.048	0.462	0.510
		Right Tilt	0.063	1.025	1.088
	GSM 1900	Left Touch	0.013	0.551	0.564
		Right Touch	0.032	1.094	**1.126**
		Left Tilt	0.006	0.462	0.468
		Right Tilt	0.003	1.025	1.028
	GPRS 1900	Left Touch	0.020	0.551	0.571
		Right Touch	0.044	1.094	**1.138**
		Left Tilt	0.008	0.462	0.470
		Right Tilt	0.004	1.025	1.029
	WCDMA 850	Left Touch	0.141	0.551	0.692
		Right Touch	0.132	1.094	**1.226**
		Left Tilt	0.055	0.462	0.517
		Right Tilt	0.069	1.025	1.094
	WCDMA 1700	Left Touch	0.036	0.551	0.587
		Right Touch	0.075	1.094	**1.169**
		Left Tilt	0.017	0.462	0.479
		Right Tilt	0.014	1.025	1.039
	WCDMA 1900	Left Touch	0.028	0.551	0.579
		Right Touch	0.070	1.094	**1.164**
		Left Tilt	0.011	0.462	0.473
		Right Tilt	0.011	1.025	1.036
	LTE Band 12	Left Touch	0.165	0.551	0.716
		Right Touch	0.208	1.094	**1.302**
		Left Tilt	0.072	0.462	0.534
		Right Tilt	0.107	1.025	1.132
	LTE Band 13	Left Touch	0.137	0.551	0.688
		Right Touch	0.156	1.094	**1.250**
		Left Tilt	0.073	0.462	0.535
		Right Tilt	0.103	1.025	1.128
	LTE Band 26	Left Touch	0.142	0.551	0.693
		Right Touch	0.163	1.094	**1.257**
		Left Tilt	0.071	0.462	0.533
		Right Tilt	0.079	1.025	1.104
	LTE Band 5	Left Touch	0.168	0.551	0.719
		Right Touch	0.132	1.094	**1.226**
		Left Tilt	0.063	0.462	0.525
		Right Tilt	0.064	1.025	1.089
	LTE Band 66	Left Touch	0.042	0.551	0.593
		Right Touch	0.081	1.094	**1.175**
		Left Tilt	0.025	0.462	0.487
		Right Tilt	0.016	1.025	1.041
	LTE Band 2	Left Touch	0.030	0.551	0.581
		Right Touch	0.071	1.094	**1.165**
		Left Tilt	0.015	0.462	0.477
		Right Tilt	0.016	1.025	1.041
	LTE Band 7	Left Touch	0.178	0.551	0.729
		Right Touch	0.115	1.094	1.209
		Left Tilt	0.188	0.462	0.650
		Right Tilt	0.217	1.025	**1.242**
	LTE Band 41	Left Touch	0.104	0.551	0.655
		Right Touch	0.074	1.094	**1.168**
		Left Tilt	0.028	0.462	0.490
		Right Tilt	0.066	1.025	1.091

Table 12.4.23 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.209	0.312
		Right Touch	0.092	0.607	**0.699**
		Left Tilt	0.036	0.060	0.096
		Right Tilt	0.038	0.189	0.227
	GPRS 850	Left Touch	0.145	0.209	0.354
		Right Touch	0.131	0.607	**0.738**
		Left Tilt	0.048	0.060	0.108
		Right Tilt	0.063	0.189	0.252
	GSM 1900	Left Touch	0.013	0.209	0.222
		Right Touch	0.032	0.607	**0.639**
		Left Tilt	0.006	0.060	0.066
		Right Tilt	0.003	0.189	0.192
	GPRS 1900	Left Touch	0.020	0.209	0.229
		Right Touch	0.044	0.607	**0.651**
		Left Tilt	0.008	0.060	0.068
		Right Tilt	0.004	0.189	0.193
	WCDMA 850	Left Touch	0.141	0.209	0.350
		Right Touch	0.132	0.607	**0.739**
		Left Tilt	0.055	0.060	0.115
		Right Tilt	0.069	0.189	0.258
	WCDMA 1700	Left Touch	0.036	0.209	0.245
		Right Touch	0.075	0.607	**0.682**
		Left Tilt	0.017	0.060	0.077
		Right Tilt	0.014	0.189	0.203
	WCDMA 1900	Left Touch	0.028	0.209	0.237
		Right Touch	0.070	0.607	**0.677**
		Left Tilt	0.011	0.060	0.071
		Right Tilt	0.011	0.189	0.200
	LTE Band 12	Left Touch	0.165	0.209	0.374
		Right Touch	0.208	0.607	**0.815**
		Left Tilt	0.072	0.060	0.132
		Right Tilt	0.107	0.189	0.296
	LTE Band 13	Left Touch	0.137	0.209	0.346
		Right Touch	0.156	0.607	**0.763**
		Left Tilt	0.073	0.060	0.133
		Right Tilt	0.103	0.189	0.292
	LTE Band 26	Left Touch	0.142	0.209	0.351
		Right Touch	0.163	0.607	**0.770**
		Left Tilt	0.071	0.060	0.131
		Right Tilt	0.079	0.189	0.268
	LTE Band 5	Left Touch	0.168	0.209	0.377
		Right Touch	0.132	0.607	**0.739**
		Left Tilt	0.063	0.060	0.123
		Right Tilt	0.064	0.189	0.253
	LTE Band 66	Left Touch	0.042	0.209	0.251
		Right Touch	0.081	0.607	**0.688**
		Left Tilt	0.025	0.060	0.085
		Right Tilt	0.016	0.189	0.205
	LTE Band 2	Left Touch	0.030	0.209	0.239
		Right Touch	0.071	0.607	**0.678**
		Left Tilt	0.015	0.060	0.075
		Right Tilt	0.016	0.189	0.205
	LTE Band 7	Left Touch	0.178	0.209	0.387
		Right Touch	0.115	0.607	**0.722**
		Left Tilt	0.188	0.060	0.248
		Right Tilt	0.217	0.189	0.406
	LTE Band 41	Left Touch	0.104	0.209	0.313
		Right Touch	0.074	0.607	**0.681**
		Left Tilt	0.028	0.060	0.088
		Right Tilt	0.066	0.189	0.255

Table 12.4.24 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.577	0.680
		Right Touch	0.092	1.161	**1.253**
		Left Tilt	0.036	0.497	0.533
		Right Tilt	0.038	1.194	1.232
	GPRS 850	Left Touch	0.145	0.577	0.722
		Right Touch	0.131	1.161	**1.292**
		Left Tilt	0.048	0.497	0.545
		Right Tilt	0.063	1.194	1.257
	GSM 1900	Left Touch	0.013	0.577	0.590
		Right Touch	0.032	1.161	1.193
		Left Tilt	0.006	0.497	0.503
		Right Tilt	0.003	1.194	**1.197**
	GPRS 1900	Left Touch	0.020	0.577	0.597
		Right Touch	0.044	1.161	**1.205**
		Left Tilt	0.008	0.497	0.505
		Right Tilt	0.004	1.194	1.198
	WCDMA 850	Left Touch	0.141	0.577	0.718
		Right Touch	0.132	1.161	**1.293**
		Left Tilt	0.055	0.497	0.552
		Right Tilt	0.069	1.194	1.263
	WCDMA 1700	Left Touch	0.036	0.577	0.613
		Right Touch	0.075	1.161	**1.236**
		Left Tilt	0.017	0.497	0.514
		Right Tilt	0.014	1.194	1.208
	WCDMA 1900	Left Touch	0.028	0.577	0.605
		Right Touch	0.070	1.161	**1.231**
		Left Tilt	0.011	0.497	0.508
		Right Tilt	0.011	1.194	1.205
	LTE Band 12	Left Touch	0.165	0.577	0.742
		Right Touch	0.208	1.161	**1.369**
		Left Tilt	0.072	0.497	0.569
		Right Tilt	0.107	1.194	1.301
	LTE Band 13	Left Touch	0.137	0.577	0.714
		Right Touch	0.156	1.161	**1.317**
		Left Tilt	0.073	0.497	0.570
		Right Tilt	0.103	1.194	1.297
	LTE Band 26	Left Touch	0.142	0.577	0.719
		Right Touch	0.163	1.161	**1.324**
		Left Tilt	0.071	0.497	0.568
		Right Tilt	0.079	1.194	1.273
	LTE Band 5	Left Touch	0.168	0.577	0.745
		Right Touch	0.132	1.161	**1.293**
		Left Tilt	0.063	0.497	0.560
		Right Tilt	0.064	1.194	1.258
	LTE Band 66	Left Touch	0.042	0.577	0.619
		Right Touch	0.081	1.161	**1.242**
		Left Tilt	0.025	0.497	0.522
		Right Tilt	0.016	1.194	1.210
	LTE Band 2	Left Touch	0.030	0.577	0.607
		Right Touch	0.071	1.161	**1.232**
		Left Tilt	0.015	0.497	0.512
		Right Tilt	0.016	1.194	1.210
	LTE Band 7	Left Touch	0.178	0.577	0.755
		Right Touch	0.115	1.161	1.276
		Left Tilt	0.188	0.497	0.685
		Right Tilt	0.217	1.194	**1.411**
	LTE Band 41	Left Touch	0.104	0.577	0.681
		Right Touch	0.074	1.161	1.235
		Left Tilt	0.028	0.497	0.525
		Right Tilt	0.066	1.194	**1.260**

Table 12.4.25 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth (Held to Ear)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	GSM 850	Left Touch	0.103	0.077	0.180
		Right Touch	0.092	0.142	**0.234**
		Left Tilt	0.036	0.077	0.113
		Right Tilt	0.038	0.183	0.221
	GPRS 850	Left Touch	0.145	0.077	0.222
		Right Touch	0.131	0.142	**0.273**
		Left Tilt	0.048	0.077	0.125
		Right Tilt	0.063	0.183	0.246
	GSM 1900	Left Touch	0.013	0.077	0.090
		Right Touch	0.032	0.142	0.174
		Left Tilt	0.006	0.077	0.083
		Right Tilt	0.003	0.183	**0.186**
	GPRS 1900	Left Touch	0.020	0.077	0.097
		Right Touch	0.044	0.142	0.186
		Left Tilt	0.008	0.077	0.085
		Right Tilt	0.004	0.183	**0.187**
	WCDMA 850	Left Touch	0.141	0.077	0.218
		Right Touch	0.132	0.142	**0.274**
		Left Tilt	0.055	0.077	0.132
		Right Tilt	0.069	0.183	0.252
	WCDMA 1700	Left Touch	0.036	0.077	0.113
		Right Touch	0.075	0.142	**0.217**
		Left Tilt	0.017	0.077	0.094
		Right Tilt	0.014	0.183	0.197
	WCDMA 1900	Left Touch	0.028	0.077	0.105
		Right Touch	0.070	0.142	**0.212**
		Left Tilt	0.011	0.077	0.088
		Right Tilt	0.011	0.183	0.194
	LTE Band 12	Left Touch	0.165	0.077	0.242
		Right Touch	0.208	0.142	**0.350**
		Left Tilt	0.072	0.077	0.149
		Right Tilt	0.107	0.183	0.290
	LTE Band 13	Left Touch	0.137	0.077	0.214
		Right Touch	0.156	0.142	**0.298**
		Left Tilt	0.073	0.077	0.150
		Right Tilt	0.103	0.183	0.286
	LTE Band 26	Left Touch	0.142	0.077	0.219
		Right Touch	0.163	0.142	**0.305**
		Left Tilt	0.071	0.077	0.148
		Right Tilt	0.079	0.183	0.262
	LTE Band 5	Left Touch	0.168	0.077	0.245
		Right Touch	0.132	0.142	**0.274**
		Left Tilt	0.063	0.077	0.140
		Right Tilt	0.064	0.183	0.247
	LTE Band 66	Left Touch	0.042	0.077	0.119
		Right Touch	0.081	0.142	**0.223**
		Left Tilt	0.025	0.077	0.102
		Right Tilt	0.016	0.183	0.199
	LTE Band 2	Left Touch	0.030	0.077	0.107
		Right Touch	0.071	0.142	**0.213**
		Left Tilt	0.015	0.077	0.092
		Right Tilt	0.016	0.183	0.199
	LTE Band 7	Left Touch	0.178	0.077	0.255
		Right Touch	0.115	0.142	0.257
		Left Tilt	0.188	0.077	0.265
		Right Tilt	0.217	0.183	**0.400**
	LTE Band 41	Left Touch	0.104	0.077	0.181
		Right Touch	0.074	0.142	0.216
		Left Tilt	0.028	0.077	0.105
		Right Tilt	0.066	0.183	**0.249**

Table 12.4.26 Simultaneous Transmission Scenario : 2.4 GHz W-LAN Ant.1 + 5 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	2.4G W-LAN Ant.1 SAR (W/kg)	5G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	5.2G W-LAN Ant.2	Left Touch	0.246	0.521	0.767
		Right Touch	0.456	0.543	**0.999**
		Left Tilt	0.270	0.055	0.325
		Right Tilt	0.505	0.107	0.612
	5.6G W-LAN Ant.2	Left Touch	0.246	0.294	0.540
		Right Touch	0.456	0.549	**1.005**
		Left Tilt	0.270	0.084	0.354
		Right Tilt	0.505	0.146	0.651
	5.8G W-LAN Ant.2	Left Touch	0.246	0.209	0.455
		Right Touch	0.456	0.607	**1.063**
		Left Tilt	0.270	0.060	0.330
		Right Tilt	0.505	0.189	0.694

Table 12.4.27 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN Ant.1 (Held to Ear)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	5.2G W-LAN Ant.1	Left Touch	0.077	0.350	0.427
		Right Touch	0.142	0.467	0.609
		Left Tilt	0.077	0.317	0.394
		Right Tilt	0.183	0.479	**0.662**
	5.6G W-LAN Ant.1	Left Touch	0.077	0.565	**0.642**
		Right Touch	0.142	0.397	0.539
		Left Tilt	0.077	0.414	0.491
		Right Tilt	0.183	0.406	0.589
	5.8G W-LAN Ant.1	Left Touch	0.077	0.551	0.628
		Right Touch	0.142	1.094	**1.236**
		Left Tilt	0.077	0.462	0.539
		Right Tilt	0.183	1.025	1.208

Table 12.4.28 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN Ant.2 (Held to Ear)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	5.2G W-LAN Ant.2	Left Touch	0.077	0.521	0.598
		Right Touch	0.142	0.543	**0.685**
		Left Tilt	0.077	0.055	0.132
		Right Tilt	0.183	0.107	0.290
	5.6G W-LAN Ant.2	Left Touch	0.077	0.294	0.371
		Right Touch	0.142	0.549	**0.691**
		Left Tilt	0.077	0.084	0.161
		Right Tilt	0.183	0.146	0.329
	5.8G W-LAN Ant.2	Left Touch	0.077	0.209	0.286
		Right Touch	0.142	0.607	**0.749**
		Left Tilt	0.077	0.060	0.137
		Right Tilt	0.183	0.189	0.372

Table 12.4.29 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN MIMO (Held to Ear)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Head SAR	5.2G W-LAN MIMO	Left Touch	0.077	0.613	0.690
		Right Touch	0.142	0.561	0.703
		Left Tilt	0.077	0.399	0.476
		Right Tilt	0.183	0.574	**0.757**
	5.6G W-LAN MIMO	Left Touch	0.077	0.575	0.652
		Right Touch	0.142	0.636	0.778
		Left Tilt	0.077	0.473	0.550
		Right Tilt	0.183	0.619	**0.802**
	5.8G W-LAN MIMO	Left Touch	0.077	0.577	0.654
		Right Touch	0.142	1.161	1.303
		Left Tilt	0.077	0.497	0.574
		Right Tilt	0.183	1.194	**1.377**

12.5 Body-Worn Simultaneous Transmission Analysis

Table 12.5.1 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 + 5.3 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.3G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	**Front**	0.283	0.060	0.159	0.343	0.442	0.502
		Rear	0.331	0.110	0.264	0.441	0.595	**0.705**
	GPRS 850	Front	0.352	0.060	0.159	0.412	0.511	0.571
		Rear	0.448	0.110	0.264	0.558	0.712	**0.822**
	GSM 1900	Front	0.114	0.060	0.159	0.174	0.273	0.333
		Rear	0.193	0.110	0.264	0.303	0.457	**0.567**
	GPRS 1900	Front	0.165	0.060	0.159	0.225	0.324	0.384
		Rear	0.278	0.110	0.264	0.388	0.542	**0.652**
	WCDMA 850	Front	0.408	0.060	0.159	0.468	0.567	0.627
		Rear	0.441	0.110	0.264	0.551	0.705	**0.815**
	WCDMA 1700	Front	0.345	0.060	0.159	0.405	0.504	0.564
		Rear	0.559	0.110	0.264	0.669	0.823	**0.933**
	WCDMA 1900	Front	0.313	0.060	0.159	0.373	0.472	0.532
		Rear	0.507	0.110	0.264	0.617	0.771	**0.881**
	LTE Band 12	Front	0.396	0.060	0.159	0.456	0.555	0.615
		Rear	0.417	0.110	0.264	0.527	0.681	**0.791**
	LTE Band 13	Front	0.304	0.060	0.159	0.364	0.463	0.523
		Rear	0.429	0.110	0.264	0.539	0.693	**0.803**
	LTE Band 26	Front	0.402	0.060	0.159	0.462	0.561	0.621
		Rear	0.449	0.110	0.264	0.559	0.713	**0.823**
	LTE Band 5	Front	0.398	0.060	0.159	0.458	0.557	0.617
		Rear	0.450	0.110	0.264	0.56	0.714	**0.824**
	LTE Band 66	Front	0.301	0.060	0.159	0.361	0.46	0.52
		Rear	0.514	0.110	0.264	0.624	0.778	**0.888**
	LTE Band 2	Front	0.338	0.060	0.159	0.398	0.497	0.557
		Rear	0.591	0.110	0.264	0.701	0.855	**0.965**
	LTE Band 7	Front	0.402	0.060	0.159	0.462	0.561	0.621
		Rear	0.853	0.110	0.264	0.963	1.117	**1.227**
	LTE Band 41	Front	0.180	0.060	0.159	0.24	0.339	0.399
		Rear	0.317	0.110	0.264	0.427	0.581	**0.691**

Table 12.5.2 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1+ 5.6 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.6G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.060	0.152	0.343	0.435	0.495
		Rear	0.331	0.110	0.328	0.441	0.659	**0.769**
	GPRS 850	Front	0.352	0.060	0.152	0.412	0.504	0.564
		Rear	0.448	0.110	0.328	0.558	0.776	**0.886**
	GSM 1900	Front	0.114	0.060	0.152	0.174	0.266	0.326
		Rear	0.193	0.110	0.328	0.303	0.521	**0.631**
	GPRS 1900	Front	0.165	0.060	0.152	0.225	0.317	0.377
		Rear	0.278	0.110	0.328	0.388	0.606	**0.716**
	WCDMA 850	Front	0.408	0.060	0.152	0.468	0.560	0.620
		Rear	0.441	0.110	0.328	0.551	0.769	**0.879**
	WCDMA 1700	Front	0.345	0.060	0.152	0.405	0.497	0.557
		Rear	0.559	0.110	0.328	0.669	0.887	**0.997**
	WCDMA 1900	Front	0.313	0.060	0.152	0.373	0.465	0.525
		Rear	0.507	0.110	0.328	0.617	0.835	**0.945**
	LTE Band 12	Front	0.396	0.060	0.152	0.456	0.548	0.608
		Rear	0.417	0.110	0.328	0.527	0.745	**0.855**
	LTE Band 13	Front	0.304	0.060	0.152	0.364	0.456	0.516
		Rear	0.429	0.110	0.328	0.539	0.757	**0.867**
	LTE Band 26	Front	0.402	0.060	0.152	0.462	0.554	0.614
		Rear	0.449	0.110	0.328	0.559	0.777	**0.887**
	LTE Band 5	Front	0.398	0.060	0.152	0.458	0.550	0.610
		Rear	0.450	0.110	0.328	0.560	0.778	**0.888**
	LTE Band 66	Front	0.301	0.060	0.152	0.361	0.453	0.513
		Rear	0.514	0.110	0.328	0.624	0.842	**0.952**
	LTE Band 2	Front	0.338	0.060	0.152	0.398	0.490	0.550
		Rear	0.591	0.110	0.328	0.701	0.919	**1.029**
	LTE Band 7	Front	0.402	0.060	0.152	0.462	0.554	0.614
		Rear	0.853	0.110	0.328	0.963	1.181	**1.291**
	LTE Band 41	Front	0.180	0.060	0.152	0.240	0.332	0.392
		Rear	0.317	0.110	0.328	0.427	0.645	**0.755**

Table 12.5.3 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 + 5.8 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.060	0.096	0.343	0.379	0.439
		Rear	0.331	0.110	0.285	0.441	0.616	**0.726**
	GPRS 850	Front	0.352	0.060	0.096	0.412	0.448	0.508
		Rear	0.448	0.110	0.285	0.558	0.733	**0.843**
	GSM 1900	Front	0.114	0.060	0.096	0.174	0.210	0.270
		Rear	0.193	0.110	0.285	0.303	0.478	**0.588**
	GPRS 1900	Front	0.165	0.060	0.096	0.225	0.261	0.321
		Rear	0.278	0.110	0.285	0.388	0.563	**0.673**
	WCDMA 850	Front	0.408	0.060	0.096	0.468	0.504	0.564
		Rear	0.441	0.110	0.285	0.551	0.726	**0.836**
	WCDMA 1700	Front	0.345	0.060	0.096	0.405	0.441	0.501
		Rear	0.559	0.110	0.285	0.669	0.844	**0.954**
	WCDMA 1900	Front	0.313	0.060	0.096	0.373	0.409	0.469
		Rear	0.507	0.110	0.285	0.617	0.792	**0.902**
	LTE Band 12	Front	0.396	0.060	0.096	0.456	0.492	0.552
		Rear	0.417	0.110	0.285	0.527	0.702	**0.812**
	LTE Band 13	Front	0.304	0.060	0.096	0.364	0.400	0.460
		Rear	0.429	0.110	0.285	0.539	0.714	**0.824**
	LTE Band 26	Front	0.402	0.060	0.096	0.462	0.498	0.558
		Rear	0.449	0.110	0.285	0.559	0.734	**0.844**
	LTE Band 5	Front	0.398	0.060	0.096	0.458	0.494	0.554
		Rear	0.450	0.110	0.285	0.560	0.735	**0.845**
	LTE Band 66	Front	0.301	0.060	0.096	0.361	0.397	0.457
		Rear	0.514	0.110	0.285	0.624	0.799	**0.909**
	LTE Band 2	Front	0.338	0.060	0.096	0.398	0.434	0.494
		Rear	0.591	0.110	0.285	0.701	0.876	**0.986**
	LTE Band 7	Front	0.402	0.060	0.096	0.462	0.498	0.558
		Rear	0.853	0.110	0.285	0.963	1.138	**1.248**
	LTE Band 41	Front	0.180	0.060	0.096	0.240	0.276	0.336
		Rear	0.317	0.110	0.285	0.427	0.602	**0.712**

Table 12.5.4 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.3 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.3G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.084	0.314	0.367	0.398
		Rear	0.331	0.048	0.300	0.379	0.631	**0.679**
	GPRS 850	Front	0.352	0.031	0.084	0.383	0.436	0.467
		Rear	0.448	0.048	0.300	0.496	0.748	**0.796**
	GSM 1900	Front	0.114	0.031	0.084	0.145	0.198	0.229
		Rear	0.193	0.048	0.300	0.241	0.493	**0.541**
	GPRS 1900	Front	0.165	0.031	0.084	0.196	0.249	0.280
		Rear	0.278	0.048	0.300	0.326	0.578	**0.626**
	WCDMA 850	Front	0.408	0.031	0.084	0.439	0.492	0.523
		Rear	0.441	0.048	0.300	0.489	0.741	**0.789**
	WCDMA 1700	Front	0.345	0.031	0.084	0.376	0.429	0.460
		Rear	0.559	0.048	0.300	0.607	0.859	**0.907**
	WCDMA 1900	Front	0.313	0.031	0.084	0.344	0.397	0.428
		Rear	0.507	0.048	0.300	0.555	0.807	**0.855**
	LTE Band 12	Front	0.396	0.031	0.084	0.427	0.480	0.511
		Rear	0.417	0.048	0.300	0.465	0.717	**0.765**
	LTE Band 13	Front	0.304	0.031	0.084	0.335	0.388	0.419
		Rear	0.429	0.048	0.300	0.477	0.729	**0.777**
	LTE Band 26	Front	0.402	0.031	0.084	0.433	0.486	0.517
		Rear	0.449	0.048	0.300	0.497	0.749	**0.797**
	LTE Band 5	Front	0.398	0.031	0.084	0.429	0.482	0.513
		Rear	0.450	0.048	0.300	0.498	0.750	**0.798**
	LTE Band 66	Front	0.301	0.031	0.084	0.332	0.385	0.416
		Rear	0.514	0.048	0.300	0.562	0.814	**0.862**
	LTE Band 2	Front	0.338	0.031	0.084	0.369	0.422	0.453
		Rear	0.591	0.048	0.300	0.639	0.891	**0.939**
	LTE Band 7	Front	0.402	0.031	0.084	0.433	0.486	0.517
		Rear	0.853	0.048	0.300	0.901	1.153	**1.201**
	LTE Band 41	Front	0.180	0.031	0.084	0.211	0.264	0.295
		Rear	0.317	0.048	0.300	0.365	0.617	**0.665**

Table 12.5.5 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.3 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.3G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.159	0.313	0.442	0.473
		Rear	0.331	0.048	0.264	0.379	0.595	**0.643**
	GPRS 850	Front	0.352	0.031	0.159	0.383	0.511	0.542
		Rear	0.448	0.048	0.264	0.496	0.712	**0.760**
	GSM 1900	Front	0.114	0.031	0.159	0.145	0.273	0.304
		Rear	0.193	0.048	0.264	0.241	0.457	**0.505**
	GPRS 1900	Front	0.165	0.031	0.159	0.196	0.324	0.355
		Rear	0.278	0.048	0.264	0.326	0.542	**0.590**
	WCDMA 850	Front	0.408	0.031	0.159	0.439	0.567	0.598
		Rear	0.441	0.048	0.264	0.489	0.705	**0.753**
	WCDMA 1700	Front	0.345	0.031	0.159	0.375	0.504	0.535
		Rear	0.559	0.048	0.264	0.607	0.823	**0.871**
	WCDMA 1900	Front	0.313	0.031	0.159	0.344	0.472	0.503
		Rear	0.507	0.048	0.264	0.555	0.771	**0.819**
	LTE Band 12	Front	0.396	0.031	0.159	0.427	0.555	0.586
		Rear	0.417	0.048	0.264	0.465	0.681	**0.729**
	LTE Band 13	Front	0.304	0.031	0.159	0.335	0.463	0.494
		Rear	0.429	0.048	0.264	0.477	0.693	**0.741**
	LTE Band 26	Front	0.402	0.031	0.159	0.433	0.561	0.592
		Rear	0.449	0.048	0.264	0.497	0.713	**0.761**
	LTE Band 5	Front	0.398	0.031	0.159	0.428	0.557	0.588
		Rear	0.450	0.048	0.264	0.498	0.714	**0.762**
	LTE Band 66	Front	0.301	0.031	0.159	0.332	0.460	0.491
		Rear	0.514	0.048	0.264	0.562	0.778	**0.826**
	LTE Band 2	Front	0.338	0.031	0.159	0.369	0.497	0.528
		Rear	0.591	0.048	0.264	0.639	0.855	**0.903**
	LTE Band 7	Front	0.402	0.031	0.159	0.433	0.561	0.592
		Rear	0.853	0.048	0.264	0.901	1.117	**1.165**
	LTE Band 41	Front	0.180	0.031	0.159	0.211	0.339	0.370
		Rear	0.317	0.048	0.264	0.365	0.581	**0.629**

Table 12.5.6 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.3 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.3G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.172	0.313	0.454	0.486
		Rear	0.331	0.048	0.322	0.379	0.653	**0.701**
	GPRS 850	Front	0.352	0.031	0.172	0.383	0.524	0.555
		Rear	0.448	0.048	0.322	0.496	0.770	**0.818**
	GSM 1900	Front	0.114	0.031	0.172	0.145	0.286	0.317
		Rear	0.193	0.048	0.322	0.241	0.515	**0.563**
	GPRS 1900	Front	0.165	0.031	0.172	0.196	0.337	0.368
		Rear	0.278	0.048	0.322	0.326	0.600	**0.648**
	WCDMA 850	Front	0.408	0.031	0.172	0.439	0.580	0.611
		Rear	0.441	0.048	0.322	0.489	0.763	**0.811**
	WCDMA 1700	Front	0.345	0.031	0.172	0.375	0.516	0.548
		Rear	0.559	0.048	0.322	0.607	0.880	**0.929**
	WCDMA 1900	Front	0.313	0.031	0.172	0.344	0.485	0.516
		Rear	0.507	0.048	0.322	0.555	0.828	**0.877**
	LTE Band 12	Front	0.396	0.031	0.172	0.427	0.568	0.599
		Rear	0.417	0.048	0.322	0.465	0.738	**0.787**
	LTE Band 13	Front	0.304	0.031	0.172	0.335	0.476	0.507
		Rear	0.429	0.048	0.322	0.477	0.750	**0.799**
	LTE Band 26	Front	0.402	0.031	0.172	0.433	0.574	0.605
		Rear	0.449	0.048	0.322	0.497	0.771	**0.819**
	LTE Band 5	Front	0.398	0.031	0.172	0.428	0.569	0.601
		Rear	0.450	0.048	0.322	0.498	0.771	**0.820**
	LTE Band 66	Front	0.301	0.031	0.172	0.332	0.473	0.504
		Rear	0.514	0.048	0.322	0.562	0.836	**0.884**
	LTE Band 2	Front	0.338	0.031	0.172	0.369	0.510	0.541
		Rear	0.591	0.048	0.322	0.639	0.912	**0.961**
	LTE Band 7	Front	0.402	0.031	0.172	0.433	0.574	0.605
		Rear	0.853	0.048	0.322	0.901	1.174	**1.223**
	LTE Band 41	Front	0.180	0.031	0.172	0.211	0.352	0.383
		Rear	0.317	0.048	0.322	0.365	0.638	**0.687**

Table 12.5.7 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.6 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.6G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.156	0.314	0.439	0.470
		Rear	0.331	0.048	0.336	0.379	0.667	**0.715**
	GPRS 850	Front	0.352	0.031	0.156	0.383	0.508	0.539
		Rear	0.448	0.048	0.336	0.496	0.784	**0.832**
	GSM 1900	Front	0.114	0.031	0.156	0.145	0.270	0.301
		Rear	0.193	0.048	0.336	0.241	0.529	**0.577**
	GPRS 1900	Front	0.165	0.031	0.156	0.196	0.321	0.352
		Rear	0.278	0.048	0.336	0.326	0.614	**0.662**
	WCDMA 850	Front	0.408	0.031	0.156	0.439	0.564	0.595
		Rear	0.441	0.048	0.336	0.489	0.777	**0.825**
	WCDMA 1700	Front	0.345	0.031	0.156	0.376	0.501	0.532
		Rear	0.559	0.048	0.336	0.607	0.895	**0.943**
	WCDMA 1900	Front	0.313	0.031	0.156	0.344	0.469	0.500
		Rear	0.507	0.048	0.336	0.555	0.843	**0.891**
	LTE Band 12	Front	0.396	0.031	0.156	0.427	0.552	0.583
		Rear	0.417	0.048	0.336	0.465	0.753	**0.801**
	LTE Band 13	Front	0.304	0.031	0.156	0.335	0.460	0.491
		Rear	0.429	0.048	0.336	0.477	0.765	**0.813**
	LTE Band 26	Front	0.402	0.031	0.156	0.433	0.558	0.589
		Rear	0.449	0.048	0.336	0.497	0.785	**0.833**
	LTE Band 5	Front	0.398	0.031	0.156	0.429	0.554	0.585
		Rear	0.450	0.048	0.336	0.498	0.786	**0.834**
	LTE Band 66	Front	0.301	0.031	0.156	0.332	0.457	0.488
		Rear	0.514	0.048	0.336	0.562	0.850	**0.898**
	LTE Band 2	Front	0.338	0.031	0.156	0.369	0.494	0.525
		Rear	0.591	0.048	0.336	0.639	0.927	**0.975**
	LTE Band 7	Front	0.402	0.031	0.156	0.433	0.558	0.589
		Rear	0.853	0.048	0.336	0.901	1.189	**1.237**
	LTE Band 41	Front	0.180	0.031	0.156	0.211	0.336	0.367
		Rear	0.317	0.048	0.336	0.365	0.653	**0.701**

Table 12.5.8 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.6 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.6G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.152	0.314	0.435	0.466
		Rear	0.331	0.048	0.328	0.379	0.659	**0.707**
	GPRS 850	Front	0.352	0.031	0.152	0.383	0.504	0.535
		Rear	0.448	0.048	0.328	0.496	0.776	**0.824**
	GSM 1900	Front	0.114	0.031	0.152	0.145	0.266	0.297
		Rear	0.193	0.048	0.328	0.241	0.521	**0.569**
	GPRS 1900	Front	0.165	0.031	0.152	0.196	0.317	0.348
		Rear	0.278	0.048	0.328	0.326	0.606	**0.654**
	WCDMA 850	Front	0.408	0.031	0.152	0.439	0.560	0.591
		Rear	0.441	0.048	0.328	0.489	0.769	**0.817**
	WCDMA 1700	Front	0.345	0.031	0.152	0.376	0.497	0.528
		Rear	0.559	0.048	0.328	0.607	0.887	**0.935**
	WCDMA 1900	Front	0.313	0.031	0.152	0.344	0.465	0.496
		Rear	0.507	0.048	0.328	0.555	0.835	**0.883**
	LTE Band 12	Front	0.396	0.031	0.152	0.427	0.548	0.579
		Rear	0.417	0.048	0.328	0.465	0.745	**0.793**
	LTE Band 13	Front	0.304	0.031	0.152	0.335	0.456	0.487
		Rear	0.429	0.048	0.328	0.477	0.757	**0.805**
	LTE Band 26	Front	0.402	0.031	0.152	0.433	0.554	0.585
		Rear	0.449	0.048	0.328	0.497	0.777	**0.825**
	LTE Band 5	Front	0.398	0.031	0.152	0.429	0.550	0.581
		Rear	0.450	0.048	0.328	0.498	0.778	**0.826**
	LTE Band 66	Front	0.301	0.031	0.152	0.332	0.453	0.484
		Rear	0.514	0.048	0.328	0.562	0.842	**0.890**
	LTE Band 2	Front	0.338	0.031	0.152	0.369	0.490	0.521
		Rear	0.591	0.048	0.328	0.639	0.919	**0.967**
	LTE Band 7	Front	0.402	0.031	0.152	0.433	0.554	0.585
		Rear	0.853	0.048	0.328	0.901	1.181	**1.229**
	LTE Band 41	Front	0.180	0.031	0.152	0.211	0.332	0.363
		Rear	0.317	0.048	0.328	0.365	0.645	**0.693**

Table 12.5.9 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.6 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.6G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.313	0.314	0.596	0.627
		Rear	0.331	0.048	0.434	0.379	0.765	**0.813**
	GPRS 850	Front	0.352	0.031	0.313	0.383	0.665	0.696
		Rear	0.448	0.048	0.434	0.496	0.882	**0.930**
	GSM 1900	Front	0.114	0.031	0.313	0.145	0.427	0.458
		Rear	0.193	0.048	0.434	0.241	0.627	**0.675**
	GPRS 1900	Front	0.165	0.031	0.313	0.196	0.478	0.509
		Rear	0.278	0.048	0.434	0.326	0.712	**0.760**
	WCDMA 850	Front	0.408	0.031	0.313	0.439	0.721	0.752
		Rear	0.441	0.048	0.434	0.489	0.875	**0.923**
	WCDMA 1700	Front	0.345	0.031	0.313	0.376	0.658	0.689
		Rear	0.559	0.048	0.434	0.607	0.993	**1.041**
	WCDMA 1900	Front	0.313	0.031	0.313	0.344	0.626	0.657
		Rear	0.507	0.048	0.434	0.555	0.941	**0.989**
	LTE Band 12	Front	0.396	0.031	0.313	0.427	0.709	0.740
		Rear	0.417	0.048	0.434	0.465	0.851	**0.899**
	LTE Band 13	Front	0.304	0.031	0.313	0.335	0.617	0.648
		Rear	0.429	0.048	0.434	0.477	0.863	**0.911**
	LTE Band 26	Front	0.402	0.031	0.313	0.433	0.715	0.746
		Rear	0.449	0.048	0.434	0.497	0.883	**0.931**
	LTE Band 5	Front	0.398	0.031	0.313	0.429	0.711	0.742
		Rear	0.450	0.048	0.434	0.498	0.884	**0.932**
	LTE Band 66	Front	0.301	0.031	0.313	0.332	0.614	0.645
		Rear	0.514	0.048	0.434	0.562	0.948	**0.996**
	LTE Band 2	Front	0.338	0.031	0.313	0.369	0.651	0.682
		Rear	0.591	0.048	0.434	0.639	1.025	**1.073**
	LTE Band 7	Front	0.402	0.031	0.313	0.433	0.715	0.746
		Rear	**0.853**	**0.048**	**0.434**	**0.901**	**1.287**	1.335
	LTE Band 41	Front	0.180	0.031	0.313	0.211	0.493	0.524
		Rear	0.317	0.048	0.434	0.365	0.751	**0.799**

Table 12.5.10 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.172	0.314	0.455	0.486
		Rear	0.331	0.048	0.336	0.379	0.667	**0.715**
	GPRS 850	Front	0.352	0.031	0.172	0.383	0.524	0.555
		Rear	0.448	0.048	0.336	0.496	0.784	**0.832**
	GSM 1900	Front	0.114	0.031	0.172	0.145	0.286	0.317
		Rear	0.193	0.048	0.336	0.241	0.529	**0.577**
	GPRS 1900	Front	0.165	0.031	0.172	0.196	0.337	0.368
		Rear	0.278	0.048	0.336	0.326	0.614	**0.662**
	WCDMA 850	Front	0.408	0.031	0.172	0.439	0.580	0.611
		Rear	0.441	0.048	0.336	0.489	0.777	**0.825**
	WCDMA 1700	Front	0.345	0.031	0.172	0.376	0.517	0.548
		Rear	0.559	0.048	0.336	0.607	0.895	**0.943**
	WCDMA 1900	Front	0.313	0.031	0.172	0.344	0.485	0.516
		Rear	0.507	0.048	0.336	0.555	0.843	**0.891**
	LTE Band 12	Front	0.396	0.031	0.172	0.427	0.568	0.599
		Rear	0.417	0.048	0.336	0.465	0.753	**0.801**
	LTE Band 13	Front	0.304	0.031	0.172	0.335	0.476	0.507
		Rear	0.429	0.048	0.336	0.477	0.765	**0.813**
	LTE Band 26	Front	0.402	0.031	0.172	0.433	0.574	0.605
		Rear	0.449	0.048	0.336	0.497	0.785	**0.833**
	LTE Band 5	Front	0.398	0.031	0.172	0.429	0.570	0.601
		Rear	0.450	0.048	0.336	0.498	0.786	**0.834**
	LTE Band 66	Front	0.301	0.031	0.172	0.332	0.473	0.504
		Rear	0.514	0.048	0.336	0.562	0.850	**0.898**
	LTE Band 2	Front	0.338	0.031	0.172	0.369	0.510	0.541
		Rear	0.591	0.048	0.336	0.639	0.927	**0.975**
	LTE Band 7	Front	0.402	0.031	0.172	0.433	0.574	0.605
		Rear	0.853	0.048	0.336	0.901	1.189	**1.237**
	LTE Band 41	Front	0.180	0.031	0.172	0.211	0.352	0.383
		Rear	0.317	0.048	0.336	0.365	0.653	**0.701**

Table 12.5.11 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.096	0.314	0.379	0.410
		Rear	0.331	0.048	0.285	0.379	0.616	**0.664**
	GPRS 850	Front	0.352	0.031	0.096	0.383	0.448	0.479
		Rear	0.448	0.048	0.285	0.496	0.733	**0.781**
	GSM 1900	Front	0.114	0.031	0.096	0.145	0.210	0.241
		Rear	0.193	0.048	0.285	0.241	0.478	**0.526**
	GPRS 1900	Front	0.165	0.031	0.096	0.196	0.261	0.292
		Rear	0.278	0.048	0.285	0.326	0.563	**0.611**
	WCDMA 850	Front	0.408	0.031	0.096	0.439	0.504	0.535
		Rear	0.441	0.048	0.285	0.489	0.726	**0.774**
	WCDMA 1700	Front	0.345	0.031	0.096	0.376	0.441	0.472
		Rear	0.559	0.048	0.285	0.607	0.844	**0.892**
	WCDMA 1900	Front	0.313	0.031	0.096	0.344	0.409	0.440
		Rear	0.507	0.048	0.285	0.555	0.792	**0.840**
	LTE Band 12	Front	0.396	0.031	0.096	0.427	0.492	0.523
		Rear	0.417	0.048	0.285	0.465	0.702	**0.750**
	LTE Band 13	Front	0.304	0.031	0.096	0.335	0.400	0.431
		Rear	0.429	0.048	0.285	0.477	0.714	**0.762**
	LTE Band 26	Front	0.402	0.031	0.096	0.433	0.498	0.529
		Rear	0.449	0.048	0.285	0.497	0.734	**0.782**
	LTE Band 5	Front	0.398	0.031	0.096	0.429	0.494	0.525
		Rear	0.450	0.048	0.285	0.498	0.735	**0.783**
	LTE Band 66	Front	0.301	0.031	0.096	0.332	0.397	0.428
		Rear	0.514	0.048	0.285	0.562	0.799	**0.847**
	LTE Band 2	Front	0.338	0.031	0.096	0.369	0.434	0.465
		Rear	0.591	0.048	0.285	0.639	0.876	**0.924**
	LTE Band 7	Front	0.402	0.031	0.096	0.433	0.498	0.529
		Rear	0.853	0.048	0.285	0.901	1.138	**1.186**
	LTE Band 41	Front	0.180	0.031	0.096	0.211	0.276	0.307
		Rear	0.317	0.048	0.285	0.365	0.602	**0.650**

Table 12.5.12 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.268	0.314	0.551	0.582
		Rear	0.331	0.048	0.360	0.379	0.691	**0.739**
	GPRS 850	Front	0.352	0.031	0.268	0.383	0.620	0.651
		Rear	0.448	0.048	0.360	0.496	0.808	**0.856**
	GSM 1900	Front	0.114	0.031	0.268	0.145	0.382	0.413
		Rear	0.193	0.048	0.360	0.241	0.553	**0.601**
	GPRS 1900	Front	0.165	0.031	0.268	0.196	0.433	0.464
		Rear	0.278	0.048	0.360	0.326	0.638	**0.686**
	WCDMA 850	Front	0.408	0.031	0.268	0.439	0.676	0.707
		Rear	0.441	0.048	0.360	0.489	0.801	**0.849**
	WCDMA 1700	Front	0.345	0.031	0.268	0.376	0.613	0.644
		Rear	0.559	0.048	0.360	0.607	0.919	**0.967**
	WCDMA 1900	Front	0.313	0.031	0.268	0.344	0.581	0.612
		Rear	0.507	0.048	0.360	0.555	0.867	**0.915**
	LTE Band 12	Front	0.396	0.031	0.268	0.427	0.664	0.695
		Rear	0.417	0.048	0.360	0.465	0.777	**0.825**
	LTE Band 13	Front	0.304	0.031	0.268	0.335	0.572	0.603
		Rear	0.429	0.048	0.360	0.477	0.789	**0.837**
	LTE Band 26	Front	0.402	0.031	0.268	0.433	0.670	0.701
		Rear	0.449	0.048	0.360	0.497	0.809	**0.857**
	LTE Band 5	Front	0.398	0.031	0.268	0.429	0.666	0.697
		Rear	0.450	0.048	0.360	0.498	0.810	**0.858**
	LTE Band 66	Front	0.301	0.031	0.268	0.332	0.569	0.600
		Rear	0.514	0.048	0.360	0.562	0.874	**0.922**
	LTE Band 2	Front	0.338	0.031	0.268	0.369	0.606	0.637
		Rear	0.591	0.048	0.360	0.639	0.951	**0.999**
	LTE Band 7	Front	0.402	0.031	0.268	0.433	0.670	0.701
		Rear	0.853	0.048	0.360	0.901	1.213	**1.261**
	LTE Band 41	Front	0.180	0.031	0.268	0.211	0.448	0.479
		Rear	0.317	0.048	0.360	0.365	0.677	**0.725**

Table 12.5.13 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.112	0.395
		Rear	0.331	0.279	**0.610**
	GPRS 850	Front	0.352	0.112	0.464
		Rear	0.448	0.279	**0.727**
	GSM 1900	Front	0.114	0.112	0.226
		Rear	0.193	0.279	**0.472**
	GPRS 1900	Front	0.165	0.112	0.277
		Rear	0.278	0.279	**0.557**
	WCDMA 850	Front	0.408	0.112	0.520
		Rear	0.441	0.279	**0.720**
	WCDMA 1700	Front	0.345	0.112	0.457
		Rear	0.559	0.279	**0.838**
	WCDMA 1900	Front	0.313	0.112	0.425
		Rear	0.507	0.279	**0.786**
	LTE Band 12	Front	0.396	0.112	0.508
		Rear	0.417	0.279	**0.696**
	LTE Band 13	Front	0.304	0.112	0.416
		Rear	0.429	0.279	**0.708**
	LTE Band 26	Front	0.402	0.112	0.514
		Rear	0.449	0.279	**0.728**
	LTE Band 5	Front	0.398	0.112	0.510
		Rear	0.450	0.279	**0.729**
	LTE Band 66	Front	0.301	0.112	0.413
		Rear	0.514	0.279	**0.793**
	LTE Band 2	Front	0.338	0.112	0.450
		Rear	0.591	0.279	**0.870**
	LTE Band 7	Front	0.402	0.112	0.514
		Rear	0.853	0.279	**1.132**
	LTE Band 41	Front	0.180	0.112	0.292
		Rear	0.317	0.279	**0.596**

Table 12.5.14 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.011	0.294
		Rear	0.331	0.111	**0.442**
	GPRS 850	Front	0.352	0.011	0.363
		Rear	0.448	0.111	**0.559**
	GSM 1900	Front	0.114	0.011	0.125
		Rear	0.193	0.111	**0.304**
	GPRS 1900	Front	0.165	0.011	0.176
		Rear	0.278	0.111	**0.389**
	WCDMA 850	Front	0.408	0.011	0.419
		Rear	0.441	0.111	**0.552**
	WCDMA 1700	Front	0.345	0.011	0.356
		Rear	0.559	0.111	**0.670**
	WCDMA 1900	Front	0.313	0.011	0.324
		Rear	0.507	0.111	**0.618**
	LTE Band 12	Front	0.396	0.011	0.407
		Rear	0.417	0.111	**0.528**
	LTE Band 13	Front	0.304	0.011	0.315
		Rear	0.429	0.111	**0.540**
	LTE Band 26	Front	0.402	0.011	0.413
		Rear	0.449	0.111	**0.560**
	LTE Band 5	Front	0.398	0.011	0.409
		Rear	0.450	0.111	**0.561**
	LTE Band 66	Front	0.301	0.011	0.312
		Rear	0.514	0.111	**0.625**
	LTE Band 2	Front	0.338	0.011	0.349
		Rear	0.591	0.111	**0.702**
	LTE Band 7	Front	0.402	0.011	0.413
		Rear	0.853	0.111	**0.964**
	LTE Band 41	Front	0.180	0.011	0.191
		Rear	0.317	0.111	**0.428**

Table 12.5.15 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.119	0.402
		Rear	0.331	0.371	**0.702**
	GPRS 850	Front	0.352	0.119	0.471
		Rear	0.448	0.371	**0.819**
	GSM 1900	Front	0.114	0.119	0.233
		Rear	0.193	0.371	**0.564**
	GPRS 1900	Front	0.165	0.119	0.284
		Rear	0.278	0.371	**0.649**
	WCDMA 850	Front	0.408	0.119	0.527
		Rear	0.441	0.371	**0.812**
	WCDMA 1700	Front	0.345	0.119	0.464
		Rear	0.559	0.371	**0.930**
	WCDMA 1900	Front	0.313	0.119	0.432
		Rear	0.507	0.371	**0.878**
	LTE Band 12	Front	0.396	0.119	0.515
		Rear	0.417	0.371	**0.788**
	LTE Band 13	Front	0.304	0.119	0.423
		Rear	0.429	0.371	**0.800**
	LTE Band 26	Front	0.402	0.119	0.521
		Rear	0.449	0.371	**0.820**
	LTE Band 5	Front	0.398	0.119	0.517
		Rear	0.450	0.371	**0.821**
	LTE Band 66	Front	0.301	0.119	0.420
		Rear	0.514	0.371	**0.885**
	LTE Band 2	Front	0.338	0.119	0.457
		Rear	0.591	0.371	**0.962**
	LTE Band 7	Front	0.402	0.119	0.521
		Rear	0.853	0.371	**1.224**
	LTE Band 41	Front	0.180	0.119	0.299
		Rear	0.317	0.371	**0.688**

Table 12.5.16 Simultaneous Transmission Scenario : 2G/3G/4G + 5.3 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.3G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.084	0.367
		Rear	0.331	0.300	**0.631**
	GPRS 850	Front	0.352	0.084	0.436
		Rear	0.448	0.300	**0.748**
	GSM 1900	Front	0.114	0.084	0.198
		Rear	0.193	0.300	**0.493**
	GPRS 1900	Front	0.165	0.084	0.249
		Rear	0.278	0.300	**0.578**
	WCDMA 850	Front	0.408	0.084	0.492
		Rear	0.441	0.300	**0.741**
	WCDMA 1700	Front	0.345	0.084	0.429
		Rear	0.559	0.300	**0.859**
	WCDMA 1900	Front	0.313	0.084	0.397
		Rear	0.507	0.300	**0.807**
	LTE Band 12	Front	0.396	0.084	0.480
		Rear	0.417	0.300	**0.717**
	LTE Band 13	Front	0.304	0.084	0.388
		Rear	0.429	0.300	**0.729**
	LTE Band 26	Front	0.402	0.084	0.486
		Rear	0.449	0.300	**0.749**
	LTE Band 5	Front	0.398	0.084	0.482
		Rear	0.450	0.300	**0.750**
	LTE Band 66	Front	0.301	0.084	0.385
		Rear	0.514	0.300	**0.814**
	LTE Band 2	Front	0.338	0.084	0.422
		Rear	0.591	0.300	**0.891**
	LTE Band 7	Front	0.402	0.084	0.486
		Rear	0.853	0.300	**1.153**
	LTE Band 41	Front	0.180	0.084	0.264
		Rear	0.317	0.300	**0.617**

Table 12.5.17 Simultaneous Transmission Scenario : 2G/3G/4G + 5.3 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.3G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.159	0.442
		Rear	0.331	0.264	**0.595**
	GPRS 850	Front	0.352	0.159	0.511
		Rear	0.448	0.264	**0.712**
	GSM 1900	Front	0.114	0.159	0.273
		Rear	0.193	0.264	**0.457**
	GPRS 1900	Front	0.165	0.159	0.324
		Rear	0.278	0.264	**0.542**
	WCDMA 850	Front	0.408	0.159	0.567
		Rear	0.441	0.264	**0.705**
	WCDMA 1700	Front	0.345	0.159	0.504
		Rear	0.559	0.264	**0.823**
	WCDMA 1900	Front	0.313	0.159	0.472
		Rear	0.507	0.264	**0.771**
	LTE Band 12	Front	0.396	0.159	0.555
		Rear	0.417	0.264	**0.681**
	LTE Band 13	Front	0.304	0.159	0.463
		Rear	0.429	0.264	**0.693**
	LTE Band 26	Front	0.402	0.159	0.561
		Rear	0.449	0.264	**0.713**
	LTE Band 5	Front	0.398	0.159	0.557
		Rear	0.450	0.264	**0.714**
	LTE Band 66	Front	0.301	0.159	0.460
		Rear	0.514	0.264	**0.778**
	LTE Band 2	Front	0.338	0.159	0.497
		Rear	0.591	0.264	**0.855**
	LTE Band 7	Front	0.402	0.159	0.561
		Rear	0.853	0.264	**1.117**
	LTE Band 41	Front	0.180	0.159	0.339
		Rear	0.317	0.264	**0.581**

Table 12.5.18 Simultaneous Transmission Scenario : 2G/3G/4G + 5.3 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.3G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.172	0.455
		Rear	0.331	0.322	**0.653**
	GPRS 850	Front	0.352	0.172	0.524
		Rear	0.448	0.322	**0.770**
	GSM 1900	Front	0.114	0.172	0.286
		Rear	0.193	0.322	**0.515**
	GPRS 1900	Front	0.165	0.172	0.337
		Rear	0.278	0.322	**0.600**
	WCDMA 850	Front	0.408	0.172	0.580
		Rear	0.441	0.322	**0.763**
	WCDMA 1700	Front	0.345	0.172	0.517
		Rear	0.559	0.322	**0.881**
	WCDMA 1900	Front	0.313	0.172	0.485
		Rear	0.507	0.322	**0.829**
	LTE Band 12	Front	0.396	0.172	0.568
		Rear	0.417	0.322	**0.739**
	LTE Band 13	Front	0.304	0.172	0.476
		Rear	0.429	0.322	**0.751**
	LTE Band 26	Front	0.402	0.172	0.574
		Rear	0.449	0.322	**0.771**
	LTE Band 5	Front	0.398	0.172	0.570
		Rear	0.450	0.322	**0.772**
	LTE Band 66	Front	0.301	0.172	0.473
		Rear	0.514	0.322	**0.836**
	LTE Band 2	Front	0.338	0.172	0.510
		Rear	0.591	0.322	**0.913**
	LTE Band 7	Front	0.402	0.172	0.574
		Rear	0.853	0.322	**1.175**
	LTE Band 41	Front	0.180	0.172	0.352
		Rear	0.317	0.322	**0.639**

Table 12.5.19 Simultaneous Transmission Scenario : 2G/3G/4G + 5.6 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.6G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.156	0.439
		Rear	0.331	0.336	**0.667**
	GPRS 850	Front	0.352	0.156	0.508
		Rear	0.448	0.336	**0.784**
	GSM 1900	Front	0.114	0.156	0.270
		Rear	0.193	0.336	**0.529**
	GPRS 1900	Front	0.165	0.156	0.321
		Rear	0.278	0.336	**0.614**
	WCDMA 850	Front	0.408	0.156	0.564
		Rear	0.441	0.336	**0.777**
	WCDMA 1700	Front	0.345	0.156	0.501
		Rear	0.559	0.336	**0.895**
	WCDMA 1900	Front	0.313	0.156	0.469
		Rear	0.507	0.336	**0.843**
	LTE Band 12	Front	0.396	0.156	0.552
		Rear	0.417	0.336	**0.753**
	LTE Band 13	Front	0.304	0.156	0.460
		Rear	0.429	0.336	**0.765**
	LTE Band 26	Front	0.402	0.156	0.558
		Rear	0.449	0.336	**0.785**
	LTE Band 5	Front	0.398	0.156	0.554
		Rear	0.450	0.336	**0.786**
	LTE Band 66	Front	0.301	0.156	0.457
		Rear	0.514	0.336	**0.850**
	LTE Band 2	Front	0.338	0.156	0.494
		Rear	0.591	0.336	**0.927**
	LTE Band 7	Front	0.402	0.156	0.558
		Rear	0.853	0.336	**1.189**
	LTE Band 41	Front	0.180	0.156	0.336
		Rear	0.317	0.336	**0.653**

Table 12.5.20 Simultaneous Transmission Scenario : 2G/3G/4G + 5.6 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.6G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.152	0.435
		Rear	0.331	0.328	**0.659**
	GPRS 850	Front	0.352	0.152	0.504
		Rear	0.448	0.328	**0.776**
	GSM 1900	Front	0.114	0.152	0.266
		Rear	0.193	0.328	**0.521**
	GPRS 1900	Front	0.165	0.152	0.317
		Rear	0.278	0.328	**0.606**
	WCDMA 850	Front	0.408	0.152	0.560
		Rear	0.441	0.328	**0.769**
	WCDMA 1700	Front	0.345	0.152	0.497
		Rear	0.559	0.328	**0.887**
	WCDMA 1900	Front	0.313	0.152	0.465
		Rear	0.507	0.328	**0.835**
	LTE Band 12	Front	0.396	0.152	0.548
		Rear	0.417	0.328	**0.745**
	LTE Band 13	Front	0.304	0.152	0.456
		Rear	0.429	0.328	**0.757**
	LTE Band 26	Front	0.402	0.152	0.554
		Rear	0.449	0.328	**0.777**
	LTE Band 5	Front	0.398	0.152	0.550
		Rear	0.450	0.328	**0.778**
	LTE Band 66	Front	0.301	0.152	0.453
		Rear	0.514	0.328	**0.842**
	LTE Band 2	Front	0.338	0.152	0.490
		Rear	0.591	0.328	**0.919**
	LTE Band 7	Front	0.402	0.152	0.554
		Rear	0.853	0.328	**1.181**
	LTE Band 41	Front	0.180	0.152	0.332
		Rear	0.317	0.328	**0.645**

Table 12.5.21 Simultaneous Transmission Scenario : 2G/3G/4G + 5.6 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.6G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.313	0.596
		Rear	0.331	0.434	**0.765**
	GPRS 850	Front	0.352	0.313	0.665
		Rear	0.448	0.434	**0.882**
	GSM 1900	Front	0.114	0.313	0.427
		Rear	0.193	0.434	**0.627**
	GPRS 1900	Front	0.165	0.313	0.478
		Rear	0.278	0.434	**0.712**
	WCDMA 850	Front	0.408	0.313	0.721
		Rear	0.441	0.434	**0.875**
	WCDMA 1700	Front	0.345	0.313	0.658
		Rear	0.559	0.434	**0.993**
	WCDMA 1900	Front	0.313	0.313	0.626
		Rear	0.507	0.434	**0.941**
	LTE Band 12	Front	0.396	0.313	0.709
		Rear	0.417	0.434	**0.851**
	LTE Band 13	Front	0.304	0.313	0.617
		Rear	0.429	0.434	**0.863**
	LTE Band 26	Front	0.402	0.313	0.715
		Rear	0.449	0.434	**0.883**
	LTE Band 5	Front	0.398	0.313	0.711
		Rear	0.450	0.434	**0.884**
	LTE Band 66	Front	0.301	0.313	0.614
		Rear	0.514	0.434	**0.948**
	LTE Band 2	Front	0.338	0.313	0.651
		Rear	0.591	0.434	**1.025**
	LTE Band 7	Front	0.402	0.313	0.715
		Rear	0.853	0.434	**1.287**
	LTE Band 41	Front	0.180	0.313	0.493
		Rear	0.317	0.434	**0.751**

Table 12.5.22 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.172	0.455
		Rear	0.331	0.336	**0.667**
	GPRS 850	Front	0.352	0.172	0.524
		Rear	0.448	0.336	**0.784**
	GSM 1900	Front	0.114	0.172	0.286
		Rear	0.193	0.336	**0.529**
	GPRS 1900	Front	0.165	0.172	0.337
		Rear	0.278	0.336	**0.614**
	WCDMA 850	Front	0.408	0.172	0.580
		Rear	0.441	0.336	**0.777**
	WCDMA 1700	Front	0.345	0.172	0.517
		Rear	0.559	0.336	**0.895**
	WCDMA 1900	Front	0.313	0.172	0.485
		Rear	0.507	0.336	**0.843**
	LTE Band 12	Front	0.396	0.172	0.568
		Rear	0.417	0.336	**0.753**
	LTE Band 13	Front	0.304	0.172	0.476
		Rear	0.429	0.336	**0.765**
	LTE Band 26	Front	0.402	0.172	0.574
		Rear	0.449	0.336	**0.785**
	LTE Band 5	Front	0.398	0.172	0.570
		Rear	0.450	0.336	**0.786**
	LTE Band 66	Front	0.301	0.172	0.473
		Rear	0.514	0.336	**0.850**
	LTE Band 2	Front	0.338	0.172	0.510
		Rear	0.591	0.336	**0.927**
	LTE Band 7	Front	0.402	0.172	0.574
		Rear	0.853	0.336	**1.189**
	LTE Band 41	Front	0.180	0.172	0.352
		Rear	0.317	0.336	**0.653**

Table 12.5.23 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.096	0.379
		Rear	0.331	0.285	**0.616**
	GPRS 850	Front	0.352	0.096	0.448
		Rear	0.448	0.285	**0.733**
	GSM 1900	Front	0.114	0.096	0.210
		Rear	0.193	0.285	**0.478**
	GPRS 1900	Front	0.165	0.096	0.261
		Rear	0.278	0.285	**0.563**
	WCDMA 850	Front	0.408	0.096	0.504
		Rear	0.441	0.285	**0.726**
	WCDMA 1700	Front	0.345	0.096	0.441
		Rear	0.559	0.285	**0.844**
	WCDMA 1900	Front	0.313	0.096	0.409
		Rear	0.507	0.285	**0.792**
	LTE Band 12	Front	0.396	0.096	0.492
		Rear	0.417	0.285	**0.702**
	LTE Band 13	Front	0.304	0.096	0.400
		Rear	0.429	0.285	**0.714**
	LTE Band 26	Front	0.402	0.096	0.498
		Rear	0.449	0.285	**0.734**
	LTE Band 5	Front	0.398	0.096	0.494
		Rear	0.450	0.285	**0.735**
	LTE Band 66	Front	0.301	0.096	0.397
		Rear	0.514	0.285	**0.799**
	LTE Band 2	Front	0.338	0.096	0.434
		Rear	0.591	0.285	**0.876**
	LTE Band 7	Front	0.402	0.096	0.498
		Rear	0.853	0.285	**1.138**
	LTE Band 41	Front	0.180	0.096	0.276
		Rear	0.317	0.285	**0.602**

Table 12.5.24 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.268	0.551
		Rear	0.331	0.360	**0.691**
	GPRS 850	Front	0.352	0.268	0.620
		Rear	0.448	0.360	**0.808**
	GSM 1900	Front	0.114	0.268	0.382
		Rear	0.193	0.360	**0.553**
	GPRS 1900	Front	0.165	0.268	0.433
		Rear	0.278	0.360	**0.638**
	WCDMA 850	Front	0.408	0.268	0.676
		Rear	0.441	0.360	**0.801**
	WCDMA 1700	Front	0.345	0.268	0.613
		Rear	0.559	0.360	**0.919**
	WCDMA 1900	Front	0.313	0.268	0.581
		Rear	0.507	0.360	**0.867**
	LTE Band 12	Front	0.396	0.268	0.664
		Rear	0.417	0.360	**0.777**
	LTE Band 13	Front	0.304	0.268	0.572
		Rear	0.429	0.360	**0.789**
	LTE Band 26	Front	0.402	0.268	0.670
		Rear	0.449	0.360	**0.809**
	LTE Band 5	Front	0.398	0.268	0.666
		Rear	0.450	0.360	**0.810**
	LTE Band 66	Front	0.301	0.268	0.569
		Rear	0.514	0.360	**0.874**
	LTE Band 2	Front	0.338	0.268	0.606
		Rear	0.591	0.360	**0.951**
	LTE Band 7	Front	0.402	0.268	0.670
		Rear	0.853	0.360	**1.213**
	LTE Band 41	Front	0.180	0.268	0.448
		Rear	0.317	0.360	**0.677**

Table 12.5.25 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	GSM 850	Front	0.283	0.031	0.314
		Rear	0.331	0.048	**0.379**
	GPRS 850	Front	0.352	0.031	0.383
		Rear	0.448	0.048	**0.496**
	GSM 1900	Front	0.114	0.031	0.145
		Rear	0.193	0.048	**0.241**
	GPRS 1900	Front	0.165	0.031	0.196
		Rear	0.278	0.048	**0.326**
	WCDMA 850	Front	0.408	0.031	0.439
		Rear	0.441	0.048	**0.489**
	WCDMA 1700	Front	0.345	0.031	0.376
		Rear	0.559	0.048	**0.607**
	WCDMA 1900	Front	0.313	0.031	0.344
		Rear	0.507	0.048	**0.555**
	LTE Band 12	Front	0.396	0.031	0.427
		Rear	0.417	0.048	**0.465**
	LTE Band 13	Front	0.304	0.031	0.335
		Rear	0.429	0.048	**0.477**
	LTE Band 26	Front	0.402	0.031	0.433
		Rear	0.449	0.048	**0.497**
	LTE Band 5	Front	0.398	0.031	0.429
		Rear	0.450	0.048	**0.498**
	LTE Band 66	Front	0.301	0.031	0.332
		Rear	0.514	0.048	**0.562**
	LTE Band 2	Front	0.338	0.031	0.369
		Rear	0.591	0.048	**0.639**
	LTE Band 7	Front	0.402	0.031	0.433
		Rear	0.853	0.048	**0.901**
	LTE Band 41	Front	0.180	0.031	0.211
		Rear	0.317	0.048	**0.365**

Table 12.5.26 Simultaneous Transmission Scenario : 2.4 GHz W-LAN Ant.1 + 5 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	2.4G W-LAN Ant.1 SAR (W/kg)	5G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	5.2G W-LAN Ant.2	Front	0.060	0.159	0.219
		Rear	0.110	0.264	**0.374**
	5.6G W-LAN Ant.2	Front	0.060	0.152	0.212
		Rear	0.110	0.328	**0.438**
	5.8G W-LAN Ant.2	Front	0.060	0.096	0.156
		Rear	0.110	0.285	**0.395**

Table 12.5.27 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN Ant.1 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	5.3G W-LAN Ant.1	Front	0.031	0.084	0.115
		Rear	0.048	0.300	**0.348**
	5.6G W-LAN Ant.1	Front	0.031	0.156	0.187
		Rear	0.048	0.336	**0.384**
	5.8G W-LAN Ant.1	Front	0.031	0.172	0.203
		Rear	0.048	0.336	**0.384**

Table 12.5.28 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN Ant.2 (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	5.3G W-LAN Ant.2	Front	0.031	0.159	0.190
		Rear	0.048	0.264	**0.312**
	5.6G W-LAN Ant.2	Front	0.031	0.152	0.183
		Rear	0.048	0.328	**0.376**
	5.8G W-LAN Ant.2	Front	0.031	0.096	0.127
		Rear	0.048	0.285	**0.333**

Table 12.5.29 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN MIMO (Body-Worn at 10 mm)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Body-Worn SAR	5.3G W-LAN MIMO	Front	0.031	0.172	0.203
		Rear	0.048	0.322	**0.370**
	5.6G W-LAN MIMO	Front	0.031	0.313	0.344
		Rear	0.048	0.434	**0.482**
	5.8G W-LAN MIMO	Front	0.031	0.268	0.299
		Rear	0.048	0.360	**0.408**

12.6 Hotspot SAR Simultaneous Transmission Analysis

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

Table 12.6.1 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1+ 5.2 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.2G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.060	0.147	0.412	0.499	0.559
		Rear	0.448	0.110	0.252	0.558	0.700	**0.810**
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.039	0.053	0.039	0.053	0.092
	GPRS 1900	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.060	0.147	0.225	0.312	0.372
		Rear	0.278	0.110	0.252	0.388	0.530	**0.640**
		Right	-	-	-	-	-	-
		Left	0.107	0.039	0.053	0.146	0.160	0.199
	WCDMA 850	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.060	0.147	0.468	0.555	0.615
		Rear	0.441	0.110	0.252	0.551	0.693	**0.803**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.039	0.053	0.039	0.053	0.092
	WCDMA 1700	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.060	0.147	0.405	0.492	0.552
		Rear	0.559	0.110	0.252	0.669	0.811	**0.921**
		Right	-	-	-	-	-	-
		Left	0.314	0.039	0.053	0.353	0.367	0.406
	WCDMA 1900	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.060	0.147	0.373	0.460	0.520
		Rear	0.507	0.110	0.252	0.617	0.759	**0.869**
		Right	-	-	-	-	-	-
		Left	0.190	0.039	0.053	0.229	0.243	0.282
	LTE Band 12	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.060	0.147	0.456	0.543	0.603
		Rear	0.417	0.110	0.252	0.527	0.669	**0.779**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.039	0.053	0.039	0.053	0.092
	LTE Band 13	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.060	0.147	0.364	0.451	0.511
		Rear	0.429	0.110	0.252	0.539	0.681	**0.791**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.039	0.053	0.039	0.053	0.092
	LTE Band 26	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.060	0.147	0.462	0.549	0.609
		Rear	0.449	0.110	0.252	0.559	0.701	**0.811**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.039	0.053	0.039	0.053	0.092
	LTE Band 5	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.060	0.147	0.458	0.545	0.605
		Rear	0.450	0.110	0.252	0.560	0.702	**0.812**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.039	0.053	0.039	0.053	0.092
	LTE Band 66	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.060	0.147	0.361	0.448	0.508
		Rear	0.514	0.110	0.252	0.624	0.766	**0.876**
		Right	-	-	-	-	-	-
		Left	0.227	0.039	0.053	0.266	0.280	0.319
	LTE Band 2	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.060	0.147	0.398	0.485	0.545
		Rear	0.591	0.110	0.252	0.701	0.843	**0.953**
		Right	-	-	-	-	-	-
		Left	0.196	0.039	0.053	0.235	0.249	0.288
	LTE Band 7	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.060	0.147	0.462	0.549	0.609
		Rear	0.853	0.110	0.252	0.963	1.105	**1.215**
		Right	-	-	-	-	-	-
		Left	0.097	0.039	0.053	0.136	0.150	0.189
	LTE Band 41	Top	-	0.097	0.009	0.097	0.009	0.106
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.060	0.147	0.240	0.327	0.387
		Rear	0.317	0.110	0.252	0.427	0.569	**0.679**
		Right	-	-	-	-	-	-
		Left	0.297	0.039	0.053	0.336	0.350	0.389

Table 12.6.2 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 + 5.8 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.060	0.096	0.412	0.448	0.508
		Rear	0.448	0.110	0.285	0.558	0.733	**0.843**
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.039	0.090	0.039	0.090	0.129
	GPRS 1900	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.060	0.096	0.225	0.261	0.321
		Rear	0.278	0.110	0.285	0.388	0.563	**0.673**
		Right	-	-	-	-	-	-
		Left	0.107	0.039	0.090	0.146	0.197	0.236
	WCDMA 850	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.060	0.096	0.468	0.504	0.564
		Rear	0.441	0.110	0.285	0.551	0.726	**0.836**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.039	0.090	0.039	0.090	0.129
	WCDMA 1700	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.060	0.096	0.405	0.441	0.501
		Rear	0.559	0.110	0.285	0.669	0.844	**0.954**
		Right	-	-	-	-	-	-
		Left	0.314	0.039	0.090	0.353	0.404	0.443
	WCDMA 1900	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.060	0.096	0.373	0.409	0.469
		Rear	0.507	0.110	0.285	0.617	0.792	**0.902**
		Right	-	-	-	-	-	-
		Left	0.190	0.039	0.090	0.229	0.280	0.319
	LTE Band 12	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.060	0.096	0.456	0.492	0.552
		Rear	0.417	0.110	0.285	0.527	0.702	**0.812**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.039	0.090	0.039	0.090	0.129
	LTE Band 13	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.060	0.096	0.364	0.400	0.460
		Rear	0.429	0.110	0.285	0.539	0.714	**0.824**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.039	0.090	0.039	0.090	0.129
	LTE Band 26	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.060	0.096	0.462	0.498	0.558
		Rear	0.449	0.110	0.285	0.559	0.734	**0.844**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.039	0.090	0.039	0.090	0.129
	LTE Band 5	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.060	0.096	0.458	0.494	0.554
		Rear	0.450	0.110	0.285	0.560	0.735	**0.845**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.039	0.090	0.039	0.090	0.129
	LTE Band 66	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.060	0.096	0.361	0.397	0.457
		Rear	0.514	0.110	0.285	0.624	0.799	**0.909**
		Right	-	-	-	-	-	-
		Left	0.227	0.039	0.090	0.266	0.317	0.356
	LTE Band 2	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.060	0.096	0.398	0.434	0.494
		Rear	0.591	0.110	0.285	0.701	0.876	**0.986**
		Right	-	-	-	-	-	-
		Left	0.196	0.039	0.090	0.235	0.286	0.325
	LTE Band 7	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.060	0.096	0.462	0.498	0.558
		Rear	0.853	0.110	0.285	0.963	1.138	**1.248**
		Right	-	-	-	-	-	-
		Left	0.097	0.039	0.090	0.136	0.187	0.226
	LTE Band 41	Top	-	0.097	0.011	0.097	0.011	0.108
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.060	0.096	0.240	0.276	0.336
		Rear	0.317	0.110	0.285	0.427	0.602	**0.712**
		Right	-	-	-	-	-	-
		Left	0.297	0.039	0.090	0.336	0.387	0.426

Table 12.6.3 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.2 GHz W-LAN Ant.1 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.2G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.031	0.087	0.383	0.439	0.470
		Rear	0.448	0.048	0.264	0.496	0.712	**0.760**
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.009	0.043	0.009	0.043	0.052
	GPRS 1900	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.031	0.087	0.196	0.252	0.283
		Rear	0.278	0.048	0.264	0.326	0.542	**0.590**
		Right	-	-	-	-	-	-
		Left	0.107	0.009	0.043	0.116	0.150	0.159
	WCDMA 850	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.031	0.087	0.439	0.495	0.526
		Rear	0.441	0.048	0.264	0.489	0.705	**0.753**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.009	0.043	0.009	0.043	0.052
	WCDMA 1700	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.031	0.087	0.376	0.432	0.463
		Rear	0.559	0.048	0.264	0.607	0.823	**0.871**
		Right	-	-	-	-	-	-
		Left	0.314	0.009	0.043	0.323	0.357	0.366
	WCDMA 1900	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.031	0.087	0.344	0.400	0.431
		Rear	0.507	0.048	0.264	0.555	0.771	**0.819**
		Right	-	-	-	-	-	-
		Left	0.190	0.009	0.043	0.199	0.233	0.242
	LTE Band 12	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.031	0.087	0.427	0.483	0.514
		Rear	0.417	0.048	0.264	0.465	0.681	**0.729**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.009	0.043	0.009	0.043	0.052
	LTE Band 13	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.031	0.087	0.335	0.391	0.422
		Rear	0.429	0.048	0.264	0.477	0.693	**0.741**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.009	0.043	0.009	0.043	0.052
	LTE Band 26	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.031	0.087	0.433	0.489	0.520
		Rear	0.449	0.048	0.264	0.497	0.713	**0.761**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.009	0.043	0.009	0.043	0.052
	LTE Band 5	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.031	0.087	0.429	0.485	0.516
		Rear	0.450	0.048	0.264	0.498	0.714	**0.762**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.009	0.043	0.009	0.043	0.052
	LTE Band 66	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.031	0.087	0.332	0.388	0.419
		Rear	0.514	0.048	0.264	0.562	0.778	**0.826**
		Right	-	-	-	-	-	-
		Left	0.227	0.009	0.043	0.236	0.270	0.279
	LTE Band 2	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.031	0.087	0.369	0.425	0.456
		Rear	0.591	0.048	0.264	0.639	0.855	**0.903**
		Right	-	-	-	-	-	-
		Left	0.196	0.009	0.043	0.205	0.239	0.248
	LTE Band 7	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.031	0.087	0.433	0.489	0.520
		Rear	0.853	0.048	0.264	0.901	1.117	**1.165**
		Right	-	-	-	-	-	-
		Left	0.097	0.009	0.043	0.106	0.140	0.149
	LTE Band 41	Top	-	0.031	0.102	0.031	0.102	0.133
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.031	0.087	0.211	0.267	0.298
		Rear	0.317	0.048	0.264	0.365	0.581	**0.629**
		Right	-	-	-	-	-	-
		Left	0.297	0.009	0.043	0.306	0.340	0.349

Table 12.6.4 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.2 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.2G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.031	0.147	0.383	0.499	0.530
		Rear	0.448	0.048	0.252	0.496	0.700	**0.748**
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.009	0.053	0.009	0.053	0.062
	GPRS 1900	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.031	0.147	0.196	0.312	0.343
		Rear	0.278	0.048	0.252	0.326	0.530	**0.578**
		Right	-	-	-	-	-	-
		Left	0.107	0.009	0.053	0.116	0.160	0.169
	WCDMA 850	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.031	0.147	0.439	0.555	0.586
		Rear	0.441	0.048	0.252	0.489	0.693	**0.741**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.009	0.053	0.009	0.053	0.062
	WCDMA 1700	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.031	0.147	0.376	0.492	0.523
		Rear	0.559	0.048	0.252	0.607	0.811	**0.859**
		Right	-	-	-	-	-	-
		Left	0.314	0.009	0.053	0.323	0.367	0.376
	WCDMA 1900	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.031	0.147	0.344	0.460	0.491
		Rear	0.507	0.048	0.252	0.555	0.759	**0.807**
		Right	-	-	-	-	-	-
		Left	0.190	0.009	0.053	0.199	0.243	0.252
	LTE Band 12	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.031	0.147	0.427	0.543	0.574
		Rear	0.417	0.048	0.252	0.465	0.669	**0.717**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.009	0.053	0.009	0.053	0.062
	LTE Band 13	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.031	0.147	0.335	0.451	0.482
		Rear	0.429	0.048	0.252	0.477	0.681	**0.729**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.009	0.053	0.009	0.053	0.062
	LTE Band 26	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.031	0.147	0.433	0.549	0.580
		Rear	0.449	0.048	0.252	0.497	0.701	**0.749**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.009	0.053	0.009	0.053	0.062
	LTE Band 5	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.031	0.147	0.429	0.545	0.576
		Rear	0.450	0.048	0.252	0.498	0.702	**0.750**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.009	0.053	0.009	0.053	0.062
	LTE Band 66	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.031	0.147	0.332	0.448	0.479
		Rear	0.514	0.048	0.252	0.562	0.766	**0.814**
		Right	-	-	-	-	-	-
		Left	0.227	0.009	0.053	0.236	0.280	0.289
	LTE Band 2	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.031	0.147	0.369	0.485	0.516
		Rear	0.591	0.048	0.252	0.639	0.843	**0.891**
		Right	-	-	-	-	-	-
		Left	0.196	0.009	0.053	0.205	0.249	0.258
	LTE Band 7	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.031	0.147	0.433	0.549	0.580
		Rear	0.853	0.048	0.252	0.901	1.105	**1.153**
		Right	-	-	-	-	-	-
		Left	0.097	0.009	0.053	0.106	0.150	0.159
	LTE Band 41	Top	-	0.031	0.010	0.031	0.010	0.041
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.031	0.147	0.211	0.327	0.358
		Rear	0.317	0.048	0.252	0.365	0.569	**0.617**
		Right	-	-	-	-	-	-
		Left	0.297	0.009	0.053	0.306	0.350	0.359

Table 12.6.5 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.2 GHz W-LAN MIMO (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.2G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.031	0.146	0.383	0.498	0.529
		Rear	0.448	0.048	0.283	0.496	0.731	**0.779**
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.009	0.040	0.009	0.040	0.049
	GPRS 1900	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.031	0.146	0.196	0.311	0.342
		Rear	0.278	0.048	0.283	0.326	0.561	**0.609**
		Right	-	-	-	-	-	-
		Left	0.107	0.009	0.040	0.116	0.147	0.156
	WCDMA 850	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.031	0.146	0.439	0.554	0.585
		Rear	0.441	0.048	0.283	0.489	0.724	**0.772**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.009	0.040	0.009	0.040	0.049
	WCDMA 1700	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.031	0.146	0.376	0.491	0.522
		Rear	0.559	0.048	0.283	0.607	0.842	**0.890**
		Right	-	-	-	-	-	-
		Left	0.314	0.009	0.040	0.323	0.354	0.363
	WCDMA 1900	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.031	0.146	0.344	0.459	0.490
		Rear	0.507	0.048	0.283	0.555	0.790	**0.838**
		Right	-	-	-	-	-	-
		Left	0.190	0.009	0.040	0.199	0.230	0.239
	LTE Band 12	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.031	0.146	0.427	0.542	0.573
		Rear	0.417	0.048	0.283	0.465	0.700	**0.748**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.009	0.040	0.009	0.040	0.049
	LTE Band 13	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.031	0.146	0.335	0.450	0.481
		Rear	0.429	0.048	0.283	0.477	0.712	**0.760**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.009	0.040	0.009	0.040	0.049
	LTE Band 26	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.031	0.146	0.433	0.548	0.579
		Rear	0.449	0.048	0.283	0.497	0.732	**0.780**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.009	0.040	0.009	0.040	0.049
	LTE Band 5	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.031	0.146	0.429	0.544	0.575
		Rear	0.450	0.048	0.283	0.498	0.733	**0.781**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.009	0.040	0.009	0.040	0.049
	LTE Band 66	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.031	0.146	0.332	0.447	0.478
		Rear	0.514	0.048	0.283	0.562	0.797	**0.845**
		Right	-	-	-	-	-	-
		Left	0.227	0.009	0.040	0.236	0.267	0.276
	LTE Band 2	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.031	0.146	0.369	0.484	0.515
		Rear	0.591	0.048	0.283	0.639	0.874	**0.922**
		Right	-	-	-	-	-	-
		Left	0.196	0.009	0.040	0.205	0.236	0.245
	LTE Band 7	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.031	0.146	0.433	0.548	0.579
		Rear	0.853	0.048	0.283	0.901	1.136	**1.184**
		Right	-	-	-	-	-	-
		Left	0.097	0.009	0.040	0.106	0.137	0.146
	LTE Band 41	Top	-	0.031	0.134	0.031	0.134	0.165
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.031	0.146	0.211	0.326	0.357
		Rear	0.317	0.048	0.283	0.365	0.600	**0.648**
		Right	-	-	-	-	-	-
		Left	0.297	0.009	0.040	0.306	0.337	0.346

Table 12.6.6 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN Ant.1 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.031	0.172	0.383	0.524	0.555
		Rear	0.448	0.048	0.336	0.496	0.784	**0.832**
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.009	0.083	0.009	0.083	0.092
	GPRS 1900	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.031	0.172	0.196	0.337	0.368
		Rear	0.278	0.048	0.336	0.326	0.614	**0.662**
		Right	-	-	-	-	-	-
		Left	0.107	0.009	0.083	0.116	0.190	0.199
	WCDMA 850	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.031	0.172	0.439	0.580	0.611
		Rear	0.441	0.048	0.336	0.489	0.777	**0.825**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.009	0.083	0.009	0.083	0.092
	WCDMA 1700	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.031	0.172	0.376	0.517	0.548
		Rear	0.559	0.048	0.336	0.607	0.895	**0.943**
		Right	-	-	-	-	-	-
		Left	0.314	0.009	0.083	0.323	0.397	0.406
	WCDMA 1900	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.031	0.172	0.344	0.485	0.516
		Rear	0.507	0.048	0.336	0.555	0.843	**0.891**
		Right	-	-	-	-	-	-
		Left	0.190	0.009	0.083	0.199	0.273	0.282
	LTE Band 12	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.031	0.172	0.427	0.568	0.599
		Rear	0.417	0.048	0.336	0.465	0.753	**0.801**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.009	0.083	0.009	0.083	0.092
	LTE Band 13	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.031	0.172	0.335	0.476	0.507
		Rear	0.429	0.048	0.336	0.477	0.765	**0.813**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.009	0.083	0.009	0.083	0.092
	LTE Band 26	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.031	0.172	0.433	0.574	0.605
		Rear	0.449	0.048	0.336	0.497	0.785	**0.833**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.009	0.083	0.009	0.083	0.092
	LTE Band 5	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.031	0.172	0.429	0.570	0.601
		Rear	0.450	0.048	0.336	0.498	0.786	**0.834**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.009	0.083	0.009	0.083	0.092
	LTE Band 66	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.031	0.172	0.332	0.473	0.504
		Rear	0.514	0.048	0.336	0.562	0.850	**0.898**
		Right	-	-	-	-	-	-
		Left	0.227	0.009	0.083	0.236	0.310	0.319
	LTE Band 2	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.031	0.172	0.369	0.510	0.541
		Rear	0.591	0.048	0.336	0.639	0.927	**0.975**
		Right	-	-	-	-	-	-
		Left	0.196	0.009	0.083	0.205	0.279	0.288
	LTE Band 7	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.031	0.172	0.433	0.574	0.605
		Rear	0.853	0.048	0.336	0.901	1.189	**1.237**
		Right	-	-	-	-	-	-
		Left	0.097	0.009	0.083	0.106	0.180	0.189
	LTE Band 41	Top	-	0.031	0.131	0.031	0.131	0.162
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.031	0.172	0.211	0.352	0.383
		Rear	0.317	0.048	0.336	0.365	0.653	**0.701**
		Right	-	-	-	-	-	-
		Left	0.297	0.009	0.083	0.306	0.380	0.389

Table 12.6.7 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.031	0.096	0.383	0.448	0.479
		Rear	0.448	0.048	0.285	0.496	0.733	**0.781**
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.009	0.090	0.009	0.090	0.099
	GPRS 1900	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.031	0.096	0.196	0.261	0.292
		Rear	0.278	0.048	0.285	0.326	0.563	**0.611**
		Right	-	-	-	-	-	-
		Left	0.107	0.009	0.090	0.116	0.197	0.206
	WCDMA 850	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.031	0.096	0.439	0.504	0.535
		Rear	0.441	0.048	0.285	0.489	0.726	**0.774**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.009	0.090	0.009	0.090	0.099
	WCDMA 1700	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.031	0.096	0.376	0.441	0.472
		Rear	0.559	0.048	0.285	0.607	0.844	**0.892**
		Right	-	-	-	-	-	-
		Left	0.314	0.009	0.090	0.323	0.404	0.413
	WCDMA 1900	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.031	0.096	0.344	0.409	0.440
		Rear	0.507	0.048	0.285	0.555	0.792	**0.840**
		Right	-	-	-	-	-	-
		Left	0.190	0.009	0.090	0.199	0.280	0.289
	LTE Band 12	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.031	0.096	0.427	0.492	0.523
		Rear	0.417	0.048	0.285	0.465	0.702	**0.750**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.009	0.090	0.009	0.090	0.099
	LTE Band 13	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.031	0.096	0.335	0.400	0.431
		Rear	0.429	0.048	0.285	0.477	0.714	**0.762**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.009	0.090	0.009	0.090	0.099
	LTE Band 26	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.031	0.096	0.433	0.498	0.529
		Rear	0.449	0.048	0.285	0.497	0.734	**0.782**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.009	0.090	0.009	0.090	0.099
	LTE Band 5	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.031	0.096	0.429	0.494	0.525
		Rear	0.450	0.048	0.285	0.498	0.735	**0.783**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.009	0.090	0.009	0.090	0.099
	LTE Band 66	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.031	0.096	0.332	0.397	0.428
		Rear	0.514	0.048	0.285	0.562	0.799	**0.847**
		Right	-	-	-	-	-	-
		Left	0.227	0.009	0.090	0.236	0.317	0.326
	LTE Band 2	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.031	0.096	0.369	0.434	0.465
		Rear	0.591	0.048	0.285	0.639	0.876	**0.924**
		Right	-	-	-	-	-	-
		Left	0.196	0.009	0.090	0.205	0.286	0.295
	LTE Band 7	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.031	0.096	0.433	0.498	0.529
		Rear	0.853	0.048	0.285	0.901	1.138	**1.186**
		Right	-	-	-	-	-	-
		Left	0.097	0.009	0.090	0.106	0.187	0.196
	LTE Band 41	Top	-	0.031	0.011	0.031	0.011	0.042
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.031	0.096	0.211	0.276	0.307
		Rear	0.317	0.048	0.285	0.365	0.602	**0.650**
		Right	-	-	-	-	-	-
		Left	0.297	0.009	0.090	0.306	0.387	0.396

Table 12.6.8 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth Ant.1 + 5.8 GHz W-LAN MIMO (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth Ant.1 SAR (W/kg)	5.8G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)		
			1	2	3	1+2	1+3	1+2+3
Hotspot SAR	GPRS 850	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.230	-	-	0.230	0.230	0.230
		Front	0.352	0.031	0.268	0.383	0.620	0.651
		Rear	0.448	0.048	0.360	0.496	0.808	0.856
		Right	0.181	-	-	0.181	0.181	0.181
		Left	-	0.009	0.058	0.009	0.058	0.067
	GPRS 1900	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.315	-	-	0.315	0.315	0.315
		Front	0.165	0.031	0.268	0.196	0.433	0.464
		Rear	0.278	0.048	0.360	0.326	0.638	**0.686**
		Right	-	-	-	-	-	-
		Left	0.107	0.009	0.058	0.116	0.165	0.174
	WCDMA 850	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.232	-	-	0.232	0.232	0.232
		Front	0.408	0.031	0.268	0.439	0.676	0.707
		Rear	0.441	0.048	0.360	0.489	0.801	**0.849**
		Right	0.150	-	-	0.150	0.150	0.150
		Left	-	0.009	0.058	0.009	0.058	0.067
	WCDMA 1700	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.345	0.031	0.268	0.376	0.613	0.644
		Rear	0.559	0.048	0.360	0.607	0.919	**0.967**
		Right	-	-	-	-	-	-
		Left	0.314	0.009	0.058	0.323	0.372	0.381
	WCDMA 1900	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.643	-	-	0.643	0.643	0.643
		Front	0.313	0.031	0.268	0.344	0.581	0.612
		Rear	0.507	0.048	0.360	0.555	0.867	**0.915**
		Right	-	-	-	-	-	-
		Left	0.190	0.009	0.058	0.199	0.248	0.257
	LTE Band 12	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.120	-	-	0.120	0.120	0.120
		Front	0.396	0.031	0.268	0.427	0.664	0.695
		Rear	0.417	0.048	0.360	0.465	0.777	**0.825**
		Right	0.395	-	-	0.395	0.395	0.395
		Left	-	0.009	0.058	0.009	0.058	0.067
	LTE Band 13	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.163	-	-	0.163	0.163	0.163
		Front	0.304	0.031	0.268	0.335	0.572	0.603
		Rear	0.429	0.048	0.360	0.477	0.789	**0.837**
		Right	0.388	-	-	0.388	0.388	0.388
		Left	-	0.009	0.058	0.009	0.058	0.067
	LTE Band 26	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.240	-	-	0.240	0.240	0.240
		Front	0.402	0.031	0.268	0.433	0.670	0.701
		Rear	0.449	0.048	0.360	0.497	0.809	**0.857**
		Right	0.161	-	-	0.161	0.161	0.161
		Left	-	0.009	0.058	0.009	0.058	0.067
	LTE Band 5	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.218	-	-	0.218	0.218	0.218
		Front	0.398	0.031	0.268	0.429	0.666	0.697
		Rear	0.450	0.048	0.360	0.498	0.810	**0.858**
		Right	0.138	-	-	0.138	0.138	0.138
		Left	-	0.009	0.058	0.009	0.058	0.067
	LTE Band 66	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.671	-	-	0.671	0.671	0.671
		Front	0.301	0.031	0.268	0.332	0.569	0.600
		Rear	0.514	0.048	0.360	0.562	0.874	**0.922**
		Right	-	-	-	-	-	-
		Left	0.227	0.009	0.058	0.236	0.285	0.294
	LTE Band 2	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.699	-	-	0.699	0.699	0.699
		Front	0.338	0.031	0.268	0.369	0.606	0.637
		Rear	0.591	0.048	0.360	0.639	0.951	**0.999**
		Right	-	-	-	-	-	-
		Left	0.196	0.009	0.058	0.205	0.254	0.263
	LTE Band 7	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.862	-	-	0.862	0.862	0.862
		Front	0.402	0.031	0.268	0.433	0.670	0.701
		Rear	**0.853**	**0.048**	**0.360**	**0.901**	**1.213**	1.261
		Right	-	-	-	-	-	-
		Left	0.097	0.009	0.058	0.106	0.155	0.164
	LTE Band 41	Top	-	0.031	0.085	0.031	0.085	0.116
		Bottom	0.396	-	-	0.396	0.396	0.396
		Front	0.180	0.031	0.268	0.211	0.448	0.479
		Rear	0.317	0.048	0.360	0.365	0.677	**0.725**
		Right	-	-	-	-	-	-
		Left	0.297	0.009	0.058	0.306	0.355	0.364

Table 12.6.9 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.1 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.189	0.189
		Bottom	0.230	-	0.230
		Front	0.352	0.112	0.464
		Rear	0.448	0.279	**0.727**
		Right	0.181	-	0.181
		Left	-	0.079	0.079
	GPRS 1900	Top	-	0.189	0.189
		Bottom	0.315	-	0.315
		Front	0.165	0.112	0.277
		Rear	0.278	0.279	**0.557**
		Right	-	-	-
		Left	0.107	0.079	0.186
	WCDMA 850	Top	-	0.189	0.189
		Bottom	0.232	-	0.232
		Front	0.408	0.112	0.520
		Rear	0.441	0.279	**0.720**
		Right	0.150	-	0.150
		Left	-	0.079	0.079
	WCDMA 1700	Top	-	0.189	0.189
		Bottom	0.699	-	0.699
		Front	0.345	0.112	0.457
		Rear	0.559	0.279	**0.838**
		Right	-	-	-
		Left	0.314	0.079	0.393
	WCDMA 1900	Top	-	0.189	0.189
		Bottom	0.643	-	0.643
		Front	0.313	0.112	0.425
		Rear	0.507	0.279	**0.786**
		Right	-	-	-
		Left	0.190	0.079	0.269
	LTE Band 12	Top	-	0.189	0.189
		Bottom	0.120	-	0.120
		Front	0.396	0.112	0.508
		Rear	0.417	0.279	**0.696**
		Right	0.395	-	0.395
		Left	-	0.079	0.079
	LTE Band 13	Top	-	0.189	0.189
		Bottom	0.163	-	0.163
		Front	0.304	0.112	0.416
		Rear	0.429	0.279	**0.708**
		Right	0.388	-	0.388
		Left	-	0.079	0.079
	LTE Band 26	Top	-	0.189	0.189
		Bottom	0.240	-	0.240
		Front	0.402	0.112	0.514
		Rear	0.449	0.279	**0.728**
		Right	0.161	-	0.161
		Left	-	0.079	0.079
	LTE Band 5	Top	-	0.189	0.189
		Bottom	0.218	-	0.218
		Front	0.398	0.112	0.510
		Rear	0.450	0.279	**0.729**
		Right	0.138	-	0.138
		Left	-	0.079	0.079
	LTE Band 66	Top	-	0.189	0.189
		Bottom	0.671	-	0.671
		Front	0.301	0.112	0.413
		Rear	0.514	0.279	**0.793**
		Right	-	-	-
		Left	0.227	0.079	0.306
	LTE Band 2	Top	-	0.189	0.189
		Bottom	0.699	-	0.699
		Front	0.338	0.112	0.450
		Rear	0.591	0.279	**0.870**
		Right	-	-	-
		Left	0.196	0.079	0.275
	LTE Band 7	Top	-	0.189	0.189
		Bottom	0.862	-	0.862
		Front	0.402	0.112	0.514
		Rear	0.853	0.279	**1.132**
		Right	-	-	-
		Left	0.097	0.079	0.176
	LTE Band 41	Top	-	0.189	0.189
		Bottom	0.396	-	0.396
		Front	0.180	0.112	0.292
		Rear	0.317	0.279	**0.596**
		Right	-	-	-
		Left	0.297	0.079	0.376

Table 12.6.10 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.005	0.005
		Bottom	0.230	-	0.230
		Front	0.352	0.011	0.363
		Rear	0.448	0.111	**0.559**
		Right	0.181	-	0.181
		Left	-	0.016	0.016
	GPRS 1900	Top	-	0.005	0.005
		Bottom	0.315	-	0.315
		Front	0.165	0.011	0.176
		Rear	0.278	0.111	**0.389**
		Right	-	-	-
		Left	0.107	0.016	0.123
	WCDMA 850	Top	-	0.005	0.005
		Bottom	0.232	-	0.232
		Front	0.408	0.011	0.419
		Rear	0.441	0.111	**0.552**
		Right	0.150	-	0.150
		Left	-	0.016	0.016
	WCDMA 1700	Top	-	0.005	0.005
		Bottom	0.699	-	**0.699**
		Front	0.345	0.011	0.356
		Rear	0.559	0.111	0.670
		Right	-	-	-
		Left	0.314	0.016	0.330
	WCDMA 1900	Top	-	0.005	0.005
		Bottom	0.643	-	**0.643**
		Front	0.313	0.011	0.324
		Rear	0.507	0.111	0.618
		Right	-	-	-
		Left	0.190	0.016	0.206
	LTE Band 12	Top	-	0.005	0.005
		Bottom	0.120	-	0.120
		Front	0.396	0.011	0.407
		Rear	0.417	0.111	**0.528**
		Right	0.395	-	0.395
		Left	-	0.016	0.016
	LTE Band 13	Top	-	0.005	0.005
		Bottom	0.163	-	0.163
		Front	0.304	0.011	0.315
		Rear	0.429	0.111	**0.540**
		Right	0.388	-	0.388
		Left	-	0.016	0.016
	LTE Band 26	Top	-	0.005	0.005
		Bottom	0.240	-	0.240
		Front	0.402	0.011	0.413
		Rear	0.449	0.111	**0.560**
		Right	0.161	-	0.161
		Left	-	0.016	0.016
	LTE Band 5	Top	-	0.005	0.005
		Bottom	0.218	-	0.218
		Front	0.398	0.011	0.409
		Rear	0.450	0.111	**0.561**
		Right	0.138	-	0.138
		Left	-	0.016	0.016
	LTE Band 66	Top	-	0.005	0.005
		Bottom	0.671	-	**0.671**
		Front	0.301	0.011	0.312
		Rear	0.514	0.111	0.625
		Right	0.062	-	0.062
		Left	0.227	0.016	0.243
	LTE Band 2	Top	-	0.005	0.005
		Bottom	0.699	-	0.699
		Front	0.338	0.011	0.349
		Rear	0.591	0.111	**0.702**
		Right	-	-	-
		Left	0.196	0.016	0.212
	LTE Band 7	Top	-	0.005	0.005
		Bottom	0.862	-	0.862
		Front	0.402	0.011	0.413
		Rear	0.853	0.111	**0.964**
		Right	-	-	-
		Left	0.097	0.016	0.113
	LTE Band 41	Top	-	0.005	0.005
		Bottom	0.396	-	0.396
		Front	0.180	0.011	0.191
		Rear	0.317	0.111	**0.428**
		Right	-	-	-
		Left	0.297	0.016	0.313

Table 12.6.11 Simultaneous Transmission Scenario : 2G/3G/4G + 2.4 GHz W-LAN MIMO (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	2.4G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.180	0.180
		Bottom	0.230	-	0.230
		Front	0.352	0.119	0.471
		Rear	0.448	0.371	**0.819**
		Right	0.181	-	0.181
		Left	-	0.093	0.093
	GPRS 1900	Top	-	0.180	0.180
		Bottom	0.315	-	0.315
		Front	0.165	0.119	0.284
		Rear	0.278	0.371	**0.649**
		Right	-	-	-
		Left	0.107	0.093	0.200
	WCDMA 850	Top	-	0.180	0.180
		Bottom	0.232	-	0.232
		Front	0.408	0.119	0.527
		Rear	0.441	0.371	**0.812**
		Right	0.150	-	0.150
		Left	-	0.093	0.093
	WCDMA 1700	Top	-	0.180	0.180
		Bottom	0.699	-	0.699
		Front	0.345	0.119	0.464
		Rear	0.559	0.371	**0.930**
		Right	-	-	-
		Left	0.314	0.093	0.407
	WCDMA 1900	Top	-	0.180	0.180
		Bottom	0.643	-	0.643
		Front	0.313	0.119	0.432
		Rear	0.507	0.371	**0.878**
		Right	-	-	-
		Left	0.190	0.093	0.283
	LTE Band 12	Top	-	0.180	0.180
		Bottom	0.120	-	0.120
		Front	0.396	0.119	0.515
		Rear	0.417	0.371	**0.788**
		Right	0.395	-	0.395
		Left	-	0.093	0.093
	LTE Band 13	Top	-	0.180	0.180
		Bottom	0.163	-	0.163
		Front	0.304	0.119	0.423
		Rear	0.429	0.371	**0.800**
		Right	0.388	-	0.388
		Left	-	0.093	0.093
	LTE Band 26	Top	-	0.180	0.180
		Bottom	0.240	-	0.240
		Front	0.402	0.119	0.521
		Rear	0.449	0.371	**0.820**
		Right	0.161	-	0.161
		Left	-	0.093	0.093
	LTE Band 5	Top	-	0.180	0.180
		Bottom	0.218	-	0.218
		Front	0.398	0.119	0.517
		Rear	0.450	0.371	**0.821**
		Right	0.138	-	0.138
		Left	-	0.093	0.093
	LTE Band 66	Top	-	0.180	0.180
		Bottom	0.671	-	0.671
		Front	0.301	0.119	0.420
		Rear	0.514	0.371	**0.885**
		Right	-	-	-
		Left	0.227	0.093	0.320
	LTE Band 2	Top	-	0.180	0.180
		Bottom	0.699	-	0.699
		Front	0.338	0.119	0.457
		Rear	0.591	0.371	**0.962**
		Right	-	-	-
		Left	0.196	0.093	0.289
	LTE Band 7	Top	-	0.180	0.180
		Bottom	0.862	-	0.862
		Front	0.402	0.119	0.521
		Rear	0.853	0.371	**1.224**
		Right	-	-	-
		Left	0.097	0.093	0.190
	LTE Band 41	Top	-	0.180	0.180
		Bottom	0.396	-	0.396
		Front	0.180	0.119	0.299
		Rear	0.317	0.371	**0.688**
		Right	-	-	-
		Left	0.297	0.093	0.390

Table 12.6.12 Simultaneous Transmission Scenario : 2G/3G/4G + 5.2 GHz W-LAN Ant.1 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.2G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.102	0.102
		Bottom	0.230	-	0.230
		Front	0.352	0.087	0.439
		Rear	0.448	0.264	**0.712**
		Right	0.181	-	0.181
		Left	-	0.043	0.043
	GPRS 1900	Top	-	0.102	0.102
		Bottom	0.315	-	0.315
		Front	0.165	0.087	0.252
		Rear	0.278	0.264	**0.542**
		Right	-	-	-
		Left	0.107	0.043	0.150
	WCDMA 850	Top	-	0.102	0.102
		Bottom	0.232	-	0.232
		Front	0.408	0.087	0.495
		Rear	0.441	0.264	**0.705**
		Right	0.150	-	0.150
		Left	-	0.043	0.043
	WCDMA 1700	Top	-	0.102	0.102
		Bottom	0.699	-	0.699
		Front	0.345	0.087	0.432
		Rear	0.559	0.264	**0.823**
		Right	-	-	-
		Left	0.314	0.043	0.357
	WCDMA 1900	Top	-	0.102	0.102
		Bottom	0.643	-	0.643
		Front	0.313	0.087	0.400
		Rear	0.507	0.264	**0.771**
		Right	-	-	-
		Left	0.190	0.043	0.233
	LTE Band 12	Top	-	0.102	0.102
		Bottom	0.120	-	0.120
		Front	0.396	0.087	0.483
		Rear	0.417	0.264	**0.681**
		Right	0.395	-	0.395
		Left	-	0.043	0.043
	LTE Band 13	Top	-	0.102	0.102
		Bottom	0.163	-	0.163
		Front	0.304	0.087	0.391
		Rear	0.429	0.264	**0.693**
		Right	0.388	-	0.388
		Left	-	0.043	0.043
	LTE Band 26	Top	-	0.102	0.102
		Bottom	0.240	-	0.240
		Front	0.402	0.087	0.489
		Rear	0.449	0.264	**0.713**
		Right	0.161	-	0.161
		Left	-	0.043	0.043
	LTE Band 5	Top	-	0.102	0.102
		Bottom	0.218	-	0.218
		Front	0.398	0.087	0.485
		Rear	0.450	0.264	**0.714**
		Right	0.138	-	0.138
		Left	-	0.043	0.043
	LTE Band 66	Top	-	0.102	0.102
		Bottom	0.671	-	0.671
		Front	0.301	0.087	0.388
		Rear	0.514	0.264	**0.778**
		Right	-	-	-
		Left	0.227	0.043	0.270
	LTE Band 2	Top	-	0.102	0.102
		Bottom	0.699	-	0.699
		Front	0.338	0.087	0.425
		Rear	0.591	0.264	**0.855**
		Right	-	-	-
		Left	0.196	0.043	0.239
	LTE Band 7	Top	-	0.102	0.102
		Bottom	0.862	-	0.862
		Front	0.402	0.087	0.489
		Rear	0.853	0.264	**1.117**
		Right	-	-	-
		Left	0.097	0.043	0.140
	LTE Band 41	Top	-	0.102	0.102
		Bottom	0.396	-	0.396
		Front	0.180	0.087	0.267
		Rear	0.317	0.264	**0.581**
		Right	-	-	-
		Left	0.297	0.043	0.340

Table 12.6.13 Simultaneous Transmission Scenario : 2G/3G/4G + 5.2 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.2G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.009	0.009
		Bottom	0.230	-	0.230
		Front	0.352	0.147	0.499
		Rear	0.448	0.252	**0.700**
		Right	0.181	-	0.181
		Left	-	0.053	0.053
	GPRS 1900	Top	-	0.009	0.009
		Bottom	0.315	-	0.315
		Front	0.165	0.147	0.312
		Rear	0.278	0.252	**0.530**
		Right	-	-	-
		Left	0.107	0.053	0.160
	WCDMA 850	Top	-	0.009	0.009
		Bottom	0.232	-	0.232
		Front	0.408	0.147	0.555
		Rear	0.441	0.252	**0.693**
		Right	0.150	-	0.150
		Left	-	0.053	0.053
	WCDMA 1700	Top	-	0.009	0.009
		Bottom	0.699	-	0.699
		Front	0.345	0.147	0.492
		Rear	0.559	0.252	**0.811**
		Right	-	-	-
		Left	0.314	0.053	0.367
	WCDMA 1900	Top	-	0.009	0.009
		Bottom	0.643	-	0.643
		Front	0.313	0.147	0.460
		Rear	0.507	0.252	**0.759**
		Right	-	-	-
		Left	0.190	0.053	0.243
	LTE Band 12	Top	-	0.009	0.009
		Bottom	0.120	-	0.120
		Front	0.396	0.147	0.543
		Rear	0.417	0.252	**0.669**
		Right	0.395	-	0.395
		Left	-	0.053	0.053
	LTE Band 13	Top	-	0.009	0.009
		Bottom	0.163	-	0.163
		Front	0.304	0.147	0.451
		Rear	0.429	0.252	**0.681**
		Right	0.388	-	0.388
		Left	-	0.053	0.053
	LTE Band 26	Top	-	0.009	0.009
		Bottom	0.240	-	0.240
		Front	0.402	0.147	0.549
		Rear	0.449	0.252	**0.701**
		Right	0.161	-	0.161
		Left	-	0.053	0.053
	LTE Band 5	Top	-	0.009	0.009
		Bottom	0.218	-	0.218
		Front	0.398	0.147	0.545
		Rear	0.450	0.252	**0.702**
		Right	0.138	-	0.138
		Left	-	0.053	0.053
	LTE Band 66	Top	-	0.009	0.009
		Bottom	0.671	-	0.671
		Front	0.301	0.147	0.448
		Rear	0.514	0.252	**0.766**
		Right	-	-	-
		Left	0.227	0.053	0.280
	LTE Band 2	Top	-	0.009	0.009
		Bottom	0.699	-	0.699
		Front	0.338	0.147	0.485
		Rear	0.591	0.252	**0.843**
		Right	-	-	-
		Left	0.196	0.053	0.249
	LTE Band 7	Top	-	0.009	0.009
		Bottom	0.862	-	0.862
		Front	0.402	0.147	0.549
		Rear	0.853	0.252	**1.105**
		Right	-	-	-
		Left	0.097	0.053	0.150
	LTE Band 41	Top	-	0.009	0.009
		Bottom	0.396	-	0.396
		Front	0.180	0.147	0.327
		Rear	0.317	0.252	**0.569**
		Right	-	-	-
		Left	0.297	0.053	0.350

Table 12.6.14 Simultaneous Transmission Scenario : 2G/3G/4G + 5.2 GHz W-LAN MIMO (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.2G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.134	0.134
		Bottom	0.230	-	0.230
		Front	0.352	0.146	0.498
		Rear	0.448	0.283	**0.731**
		Right	0.181	-	0.181
		Left	-	0.040	0.040
	GPRS 1900	Top	-	0.134	0.134
		Bottom	0.315	-	0.315
		Front	0.165	0.146	0.311
		Rear	0.278	0.283	**0.561**
		Right	-	-	-
		Left	0.107	0.040	0.147
	WCDMA 850	Top	-	0.134	0.134
		Bottom	0.232	-	0.232
		Front	0.408	0.146	0.554
		Rear	0.441	0.283	**0.724**
		Right	0.150	-	0.150
		Left	-	0.040	0.040
	WCDMA 1700	Top	-	0.134	0.134
		Bottom	0.699	-	0.699
		Front	0.345	0.146	0.491
		Rear	0.559	0.283	**0.842**
		Right	-	-	-
		Left	0.314	0.040	0.354
	WCDMA 1900	Top	-	0.134	0.134
		Bottom	0.643	-	0.643
		Front	0.313	0.146	0.459
		Rear	0.507	0.283	**0.790**
		Right	-	-	-
		Left	0.190	0.040	0.230
	LTE Band 12	Top	-	0.134	0.134
		Bottom	0.120	-	0.120
		Front	0.396	0.146	0.542
		Rear	0.417	0.283	**0.700**
		Right	0.395	-	0.395
		Left	-	0.040	0.040
	LTE Band 13	Top	-	0.134	0.134
		Bottom	0.163	-	0.163
		Front	0.304	0.146	0.450
		Rear	0.429	0.283	**0.712**
		Right	0.388	-	0.388
		Left	-	0.040	0.040
	LTE Band 26	Top	-	0.134	0.134
		Bottom	0.240	-	0.240
		Front	0.402	0.146	0.548
		Rear	0.449	0.283	**0.732**
		Right	0.161	-	0.161
		Left	-	0.040	0.040
	LTE Band 5	Top	-	0.134	0.134
		Bottom	0.218	-	0.218
		Front	0.398	0.146	0.544
		Rear	0.450	0.283	**0.733**
		Right	0.138	-	0.138
		Left	-	0.040	0.040
	LTE Band 66	Top	-	0.134	0.134
		Bottom	0.671	-	0.671
		Front	0.301	0.146	0.447
		Rear	0.514	0.283	**0.797**
		Right	-	-	-
		Left	0.227	0.040	0.267
	LTE Band 2	Top	-	0.134	0.134
		Bottom	0.699	-	0.699
		Front	0.338	0.146	0.484
		Rear	0.591	0.283	**0.874**
		Right	-	-	-
		Left	0.196	0.040	0.236
	LTE Band 7	Top	-	0.134	0.134
		Bottom	0.862	-	0.862
		Front	0.402	0.146	0.548
		Rear	0.853	0.283	**1.136**
		Right	-	-	-
		Left	0.097	0.040	0.137
	LTE Band 41	Top	-	0.134	0.134
		Bottom	0.396	-	0.396
		Front	0.180	0.146	0.326
		Rear	0.317	0.283	**0.600**
		Right	-	-	-
		Left	0.297	0.040	0.337

Table 12.6.15 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN Ant.1 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.131	0.131
		Bottom	0.230	-	0.230
		Front	0.352	0.172	0.524
		Rear	0.448	0.336	**0.784**
		Right	0.181	-	0.181
		Left	-	0.083	0.083
	GPRS 1900	Top	-	0.131	0.131
		Bottom	0.315	-	0.315
		Front	0.165	0.172	0.337
		Rear	0.278	0.336	**0.614**
		Right	-	-	-
		Left	0.107	0.083	0.190
	WCDMA 850	Top	-	0.131	0.131
		Bottom	0.232	-	0.232
		Front	0.408	0.172	0.580
		Rear	0.441	0.336	**0.777**
		Right	0.150	-	0.150
		Left	-	0.083	0.083
	WCDMA 1700	Top	-	0.131	0.131
		Bottom	0.699	-	0.699
		Front	0.345	0.172	0.517
		Rear	0.559	0.336	**0.895**
		Right	-	-	-
		Left	0.314	0.083	0.397
	WCDMA 1900	Top	-	0.131	0.131
		Bottom	0.643	-	0.643
		Front	0.313	0.172	0.485
		Rear	0.507	0.336	**0.843**
		Right	-	-	-
		Left	0.190	0.083	0.273
	LTE Band 12	Top	-	0.131	0.131
		Bottom	0.120	-	0.120
		Front	0.396	0.172	0.568
		Rear	0.417	0.336	**0.753**
		Right	0.395	-	0.395
		Left	-	0.083	0.083
	LTE Band 13	Top	-	0.131	0.131
		Bottom	0.163	-	0.163
		Front	0.304	0.172	0.476
		Rear	0.429	0.336	**0.765**
		Right	0.388	-	0.388
		Left	-	0.083	0.083
	LTE Band 26	Top	-	0.131	0.131
		Bottom	0.240	-	0.240
		Front	0.402	0.172	0.574
		Rear	0.449	0.336	**0.785**
		Right	0.161	-	0.161
		Left	-	0.083	0.083
	LTE Band 5	Top	-	0.131	0.131
		Bottom	0.218	-	0.218
		Front	0.398	0.172	0.570
		Rear	0.450	0.336	**0.786**
		Right	0.138	-	0.138
		Left	-	0.083	0.083
	LTE Band 66	Top	-	0.131	0.131
		Bottom	0.671	-	0.671
		Front	0.301	0.172	0.473
		Rear	0.514	0.336	**0.850**
		Right	-	-	-
		Left	0.227	0.083	0.310
	LTE Band 2	Top	-	0.131	0.131
		Bottom	0.699	-	0.699
		Front	0.338	0.172	0.510
		Rear	0.591	0.336	**0.927**
		Right	-	-	-
		Left	0.196	0.083	0.279
	LTE Band 7	Top	-	0.131	0.131
		Bottom	0.862	-	0.862
		Front	0.402	0.172	0.574
		Rear	0.853	0.336	**1.189**
		Right	-	-	-
		Left	0.097	0.083	0.180
	LTE Band 41	Top	-	0.131	0.131
		Bottom	0.396	-	0.396
		Front	0.180	0.172	0.352
		Rear	0.317	0.336	**0.653**
		Right	-	-	-
		Left	0.297	0.083	0.380

Table 12.6.16 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.011	0.011
		Bottom	0.230	-	0.230
		Front	0.352	0.096	0.448
		Rear	0.448	0.285	**0.733**
		Right	0.181	-	0.181
		Left	-	0.090	0.090
	GPRS 1900	Top	-	0.011	0.011
		Bottom	0.315	-	0.315
		Front	0.165	0.096	0.261
		Rear	0.278	0.285	**0.563**
		Right	-	-	-
		Left	0.107	0.090	0.197
	WCDMA 850	Top	-	0.011	0.011
		Bottom	0.232	-	0.232
		Front	0.408	0.096	0.504
		Rear	0.441	0.285	**0.726**
		Right	0.150	-	0.150
		Left	-	0.090	0.090
	WCDMA 1700	Top	-	0.011	0.011
		Bottom	0.699	-	0.699
		Front	0.345	0.096	0.441
		Rear	0.559	0.285	**0.844**
		Right	-	-	-
		Left	0.314	0.090	0.404
	WCDMA 1900	Top	-	0.011	0.011
		Bottom	0.643	-	0.643
		Front	0.313	0.096	0.409
		Rear	0.507	0.285	**0.792**
		Right	-	-	-
		Left	0.190	0.090	0.280
	LTE Band 12	Top	-	0.011	0.011
		Bottom	0.120	-	0.120
		Front	0.396	0.096	0.492
		Rear	0.417	0.285	**0.702**
		Right	0.395	-	0.395
		Left	-	0.090	0.090
	LTE Band 13	Top	-	0.011	0.011
		Bottom	0.163	-	0.163
		Front	0.304	0.096	0.400
		Rear	0.429	0.285	**0.714**
		Right	0.388	-	0.388
		Left	-	0.090	0.090
	LTE Band 26	Top	-	0.011	0.011
		Bottom	0.240	-	0.240
		Front	0.402	0.096	0.498
		Rear	0.449	0.285	**0.734**
		Right	0.161	-	0.161
		Left	-	0.090	0.090
	LTE Band 5	Top	-	0.011	0.011
		Bottom	0.218	-	0.218
		Front	0.398	0.096	0.494
		Rear	0.450	0.285	**0.735**
		Right	0.138	-	0.138
		Left	-	0.090	0.090
	LTE Band 66	Top	-	0.011	0.011
		Bottom	0.671	-	0.671
		Front	0.301	0.096	0.397
		Rear	0.514	0.285	**0.799**
		Right	-	-	-
		Left	0.227	0.090	0.317
	LTE Band 2	Top	-	0.011	0.011
		Bottom	0.699	-	0.699
		Front	0.338	0.096	0.434
		Rear	0.591	0.285	**0.876**
		Right	-	-	-
		Left	0.196	0.090	0.286
	LTE Band 7	Top	-	0.011	0.011
		Bottom	0.862	-	0.862
		Front	0.402	0.096	0.498
		Rear	0.853	0.285	**1.138**
		Right	-	-	-
		Left	0.097	0.090	0.187
	LTE Band 41	Top	-	0.011	0.011
		Bottom	0.396	-	0.396
		Front	0.180	0.096	0.276
		Rear	0.317	0.285	**0.602**
		Right	-	-	-
		Left	0.297	0.090	0.387

Table 12.6.17 Simultaneous Transmission Scenario : 2G/3G/4G + 5.8 GHz W-LAN MIMO (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	5.8G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.085	0.085
		Bottom	0.230	-	0.230
		Front	0.352	0.268	0.620
		Rear	0.448	0.360	**0.808**
		Right	0.181	-	0.181
		Left	-	0.058	0.058
	GPRS 1900	Top	-	0.085	0.085
		Bottom	0.315	-	0.315
		Front	0.165	0.268	0.433
		Rear	0.278	0.360	**0.638**
		Right	-	-	-
		Left	0.107	0.058	0.165
	WCDMA 850	Top	-	0.085	0.085
		Bottom	0.232	-	0.232
		Front	0.408	0.268	0.676
		Rear	0.441	0.360	**0.801**
		Right	0.150	-	0.150
		Left	-	0.058	0.058
	WCDMA 1700	Top	-	0.085	0.085
		Bottom	0.699	-	0.699
		Front	0.345	0.268	0.613
		Rear	0.559	0.360	**0.919**
		Right	-	-	-
		Left	0.314	0.058	0.372
	WCDMA 1900	Top	-	0.085	0.085
		Bottom	0.643	-	0.643
		Front	0.313	0.268	0.581
		Rear	0.507	0.360	**0.867**
		Right	-	-	-
		Left	0.190	0.058	0.248
	LTE Band 12	Top	-	0.085	0.085
		Bottom	0.120	-	0.120
		Front	0.396	0.268	0.664
		Rear	0.417	0.360	**0.777**
		Right	0.395	-	0.395
		Left	-	0.058	0.058
	LTE Band 13	Top	-	0.085	0.085
		Bottom	0.163	-	0.163
		Front	0.304	0.268	0.572
		Rear	0.429	0.360	**0.789**
		Right	0.388	-	0.388
		Left	-	0.058	0.058
	LTE Band 26	Top	-	0.085	0.085
		Bottom	0.240	-	0.240
		Front	0.402	0.268	0.670
		Rear	0.449	0.360	**0.809**
		Right	0.161	-	0.161
		Left	-	0.058	0.058
	LTE Band 5	Top	-	0.085	0.085
		Bottom	0.218	-	0.218
		Front	0.398	0.268	0.666
		Rear	0.450	0.360	**0.810**
		Right	0.138	-	0.138
		Left	-	0.058	0.058
	LTE Band 66	Top	-	0.085	0.085
		Bottom	0.671	-	0.671
		Front	0.301	0.268	0.569
		Rear	0.514	0.360	**0.874**
		Right	-	-	-
		Left	0.227	0.058	0.285
	LTE Band 2	Top	-	0.085	0.085
		Bottom	0.699	-	0.699
		Front	0.338	0.268	0.606
		Rear	0.591	0.360	**0.951**
		Right	-	-	-
		Left	0.196	0.058	0.254
	LTE Band 7	Top	-	0.085	0.085
		Bottom	0.862	-	0.862
		Front	0.402	0.268	0.670
		Rear	0.853	0.360	**1.213**
		Right	-	-	-
		Left	0.097	0.058	0.155
	LTE Band 41	Top	-	0.085	0.085
		Bottom	0.396	-	0.396
		Front	0.180	0.268	0.448
		Rear	0.317	0.360	**0.677**
		Right	-	-	-
		Left	0.297	0.058	0.355

Table 12.6.18 Simultaneous Transmission Scenario : 2G/3G/4G + Bluetooth (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2G/3G/4G SAR (W/kg)	Bluetooth SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	GPRS 850	Top	-	0.031	0.031
		Bottom	0.230	-	0.230
		Front	0.352	0.031	0.383
		Rear	0.448	0.048	**0.496**
		Right	0.181	-	0.181
		Left	-	0.009	0.009
	GPRS 1900	Top	-	0.031	0.031
		Bottom	0.315	-	0.315
		Front	0.165	0.031	0.196
		Rear	0.278	0.048	**0.326**
		Right	-	-	-
		Left	0.107	0.009	0.116
	WCDMA 850	Top	-	0.031	0.031
		Bottom	0.232	-	0.232
		Front	0.408	0.031	0.439
		Rear	0.441	0.048	**0.489**
		Right	0.150	-	0.150
		Left	-	0.009	0.009
	WCDMA 1700	Top	-	0.031	0.031
		Bottom	0.699	-	0.699
		Front	0.345	0.031	0.376
		Rear	0.559	0.048	**0.607**
		Right	-	-	-
		Left	0.314	0.009	0.323
	WCDMA 1900	Top	-	0.031	0.031
		Bottom	0.643	-	**0.643**
		Front	0.313	0.031	0.344
		Rear	0.507	0.048	0.555
		Right	-	-	-
		Left	0.190	0.009	0.199
	LTE Band 12	Top	-	0.031	0.031
		Bottom	0.120	-	0.120
		Front	0.396	0.031	0.427
		Rear	0.417	0.048	**0.465**
		Right	0.395	-	0.395
		Left	-	0.009	0.009
	LTE Band 13	Top	-	0.031	0.031
		Bottom	0.163	-	0.163
		Front	0.304	0.031	0.335
		Rear	0.429	0.048	**0.477**
		Right	0.388	-	0.388
		Left	-	0.009	0.009
	LTE Band 26	Top	-	0.031	0.031
		Bottom	0.240	-	0.240
		Front	0.402	0.031	0.433
		Rear	0.449	0.048	**0.497**
		Right	0.161	-	0.161
		Left	-	0.009	0.009
	LTE Band 5	Top	-	0.031	0.031
		Bottom	0.218	-	0.218
		Front	0.398	0.031	0.429
		Rear	0.450	0.048	**0.498**
		Right	0.138	-	0.138
		Left	-	0.009	0.009
	LTE Band 66	Top	-	0.031	0.031
		Bottom	0.671	-	**0.671**
		Front	0.301	0.031	0.332
		Rear	0.514	0.048	0.562
		Right	-	-	-
		Left	0.227	0.009	0.236
	LTE Band 2	Top	-	0.031	0.031
		Bottom	0.699	-	**0.699**
		Front	0.338	0.031	0.369
		Rear	0.591	0.048	0.639
		Right	-	-	-
		Left	0.196	0.009	0.205
	LTE Band 7	Top	-	0.031	0.031
		Bottom	0.862	-	0.862
		Front	0.402	0.031	0.433
		Rear	0.853	0.048	**0.901**
		Right	-	-	-
		Left	0.097	0.009	0.106
	LTE Band 41	Top	-	0.031	0.031
		Bottom	0.396	-	**0.396**
		Front	0.180	0.031	0.211
		Rear	0.317	0.048	0.365
		Right	-	-	-
		Left	0.297	0.009	0.306

Table 12.6.19 Simultaneous Transmission Scenario : 2.4 GHz W-LAN Ant.1+ 5 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	2.4G W-LAN Ant.1 SAR (W/kg)	5G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	5.2G W-LAN Ant.2	Top	0.097	0.009	0.106
		Bottom	-	-	-
		Front	0.060	0.147	0.207
		Rear	0.110	0.252	**0.362**
		Right	-	-	-
		Left	0.039	0.053	0.092
	5.8G W-LAN Ant.2	Top	0.097	0.011	0.108
		Bottom	-	-	-
		Front	0.060	0.096	0.156
		Rear	0.110	0.285	**0.395**
		Right	-	-	-
		Left	0.039	0.090	0.129

Table 12.6.20 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN Ant.1 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN Ant.1 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	5.2G W-LAN Ant.1	Top	0.031	0.102	0.133
		Bottom	-	-	-
		Front	0.031	0.087	0.118
		Rear	0.048	0.264	**0.312**
		Right	-	-	-
		Left	0.009	0.043	0.052
	5.8G W-LAN Ant.1	Top	0.031	0.131	0.162
		Bottom	-	-	-
		Front	0.031	0.172	0.203
		Rear	0.048	0.336	**0.384**
		Right	-	-	-
		Left	0.009	0.083	0.092

Table 12.6.21 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN Ant.2 (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN Ant.2 SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	5.2G W-LAN Ant.2	Top	0.031	0.010	0.041
		Bottom	-	-	-
		Front	0.031	0.147	0.178
		Rear	0.048	0.252	**0.300**
		Right	-	-	-
		Left	0.009	0.053	0.062
	5.8G W-LAN Ant.2	Top	0.031	0.011	0.042
		Bottom	-	-	-
		Front	0.031	0.096	0.127
		Rear	0.048	0.285	**0.333**
		Right	-	-	-
		Left	0.009	0.090	0.099

Table 12.6.22 Simultaneous Transmission Scenario : Bluetooth Ant.1 + 5 GHz W-LAN MIMO (Hotspot at 10 mm)

Exposure Condition	Mode	Configuration	Bluetooth Ant.1 SAR (W/kg)	5G W-LAN MIMO SAR (W/kg)	ΣSAR (W/kg)
			1	2	1+2
Hotspot SAR	5.2G W-LAN MIMO	Top	0.031	0.134	0.165
		Bottom	-	-	-
		Front	0.031	0.146	0.177
		Rear	0.048	0.283	**0.331**
		Right	-	-	-
		Left	0.009	0.040	0.049
	5.8G W-LAN MIMO	Top	0.031	0.085	0.116
		Bottom	-	-	-
		Front	0.031	0.268	0.299
		Rear	0.048	0.360	**0.408**
		Right	-	-	-
		Left	0.009	0.058	0.067

12.7 Phablet SAR Simultaneous Transmission Analysis

Per FCC KDB Publication 648474 D04 Handset SAR, Phablet SAR tests were not required of Hotspot 1g SAR (scaled to maximum output power, including tolerance) < 1.2 W/kg. Therefore no further analysis was required to for Phablet Simultaneous Transmission Analysis.

12.8 Simultaneous Transmission Conclusion

The above numerical summed SAR results for all the worst-case simultaneous transmission conditions were below the SAR limit. Therefore, the above analysis is sufficient to determine that simultaneous transmission cases will not exceed the SAR limit and therefore no measured volumetric simultaneous SAR summation is required per FCC KDB Publication 447498 D01v06 and IEEE 1528-2013 Section 6.3.4.1.2.

13. SAR MEASUREMENT VARIABILITY

13.1 Measurement Variability

Per FCC KDB Publication 865664 D01v01r04, SAR measurement variability was assessed for each frequency band, which was determined by the SAR probe calibration point and tissue-equivalent medium used for the device measurements. When both head and body tissue-equivalent media were required for SAR measurements in a frequency band, the variability measurement procedures were applied to the tissue medium with the highest measured SAR, using the highest measured SAR configuration for that tissue-equivalent medium. These additional measurements were repeated after the completion of all measurements requiring the same head or body tissue-equivalent medium in a frequency band. The test device was returned to ambient conditions (normal room temperature) with the battery fully charged before it was re-mounted on the device holder for the repeated measurement(s) to minimize any unexpected variations in the repeated results.

SAR Measurement Variability was assessed using the following procedures for each frequency band:

1. When the original highest measured SAR is ≥ 0.80 W/kg, the measurement was repeated once.
2. A second repeated measurement was performed only if the ratio of largest to smallest SAR for the original and first repeated measurements was > 1.20 or when the original or repeated measurement was ≥ 1.45 W/kg (~ 10% from the 1-g SAR limit).
3. A third repeated measurement was performed only if the original, first or second repeated measurement was ≥ 1.5 W/kg and the ratio of largest to smallest SAR for the original, first and second repeated measurements is > 1.20.
4. Repeated measurements are not required when the original highest measured SAR is < 0.80 W/kg
5. The same procedures should be adapted for measurements according to extremity exposure limits by applying a factor of 2.5 for extremity exposure to the corresponding SAR thresholds.

Table 13.1 Head SAR Measurement Variability Results

Frequency		Mode	Service	# of Time Slots	Spacing [Side]	Measured SAR (1g)	1st Repeated SAR(1g)	Ratio	2nd Repeated SAR(1g)	Ratio	3rd Repeated SAR(1g)	Ratio
MHz	Ch.					(W/kg)	(W/kg)		(W/kg)		(W/kg)	
2412.0	1	802.11b (Ant.1)	-	-	Right Tilt	0.842	0.839	1.00	-	-	-	-
5785.0	157	802.11a (Ant.1)	-	-	Right Touch	1.050	1.030	1.02	-	-	-	-
5785.0	157	802.11a (MIMO)	-	-	Right Tilt	1.110	1.060	1.05				
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure							Head 1.6 W/kg (mW/g) averaged over 1 gram					

Table 13.2 Body SAR Measurement Variability Results

Frequency		Mode	Service	# of Time Slots	Spacing [Side]	Measured SAR (1g)	1st Repeated SAR(1g)	Ratio	2nd Repeated SAR(1g)	Ratio	3rd Repeated SAR(1g)	Ratio
MHz	Ch.					(W/kg)	(W/kg)		(W/kg)		(W/kg)	
2560.0	21350	LTE B7	-	-	10 mm [Bottom]	0.801	0.777	1.03	-	-	-	-
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure							Body 1.6 W/kg (mW/g) averaged over 1 gram					

Table 13.3 Phablet SAR Measurement Variability Results

Frequency		Mode	Service	# of Time Slots	Spacing [Side]	Measured SAR (10g)	1st Repeated SAR(10g)	Ratio	2nd Repeated SAR(10g)	Ratio	3rd Repeated SAR(10g)	Ratio
MHz	Ch.					(W/kg)	(W/kg)		(W/kg)		(W/kg)	
2560.0	21350	LTE B7	-	-	0 mm [Rear]	2.440	2.240	1.09	-	-	-	-
ANSI / IEEE C95.1-1992– SAFETY LIMIT Spatial Peak Uncontrolled Exposure/General Population Exposure							Phablet 4.0 W/kg (mW/g) averaged over 10 gram					

13.2 Measurement Uncertainty

The measured SAR was < 1.5 W/kg for 1g and < 3.75 W/kg for 10g for all frequency bands. Therefore, per KDB Publication 865664 D01v01r04, the extended measurement uncertainty analysis per IEEE 1528-2013 was not required.

14. EQUIPMENT LIST

Table 15.1.1 Test Equipment Calibration

	Type	Manufacturer	Model	Cal.Date	Next.Cal.Date	S/N
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	SEMITEC Engineering	SEMITEC	N/A	N/A	N/A	Shield Room
☒	Robot	SPEAG	TX60L	N/A	N/A	F15/50NHA1/A/01
☒	Robot	SPEAG	TX90XL	N/A	N/A	F13/5RR2A1/A/01
☒	Robot	SPEAG	TX60L	N/A	N/A	F12/5LP5A1/A/01
☒	Robot	SPEAG	TX60L	N/A	N/A	F14/5WV5D1/A/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F15/50NHA1/C/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F13/5RR2A1/C/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F12/5LP5A1/C/01
☒	Robot Controller	SPEAG	CS8C	N/A	N/A	F14/5WV3D1/C/01
☒	Joystick	SPEAG	P21142605A	N/A	N/A	005695
☒	Joystick	SPEAG	N/A	N/A	N/A	S-13200990
☒	Joystick	SPEAG	N/A	N/A	N/A	S-12030401
☒	Joystick	SPEAG	N/A	N/A	N/A	D21142605A
☒	Intel Core i7-3770 3.40 GHz Windows 7 Professional	N/A	N/A	N/A	N/A	N/A
☒	IntelCorei7-3770 3.40 GHz Windows 7 Professional	N/A	N/A	N/A	N/A	N/A
☒	Intel Core i7-2600 3.40 GHz Windows 7 Professional	N/A	N/A	N/A	N/A	N/A
☒	Intel Core i7-4770 3.40 GHz Windows 7 Professional	N/A	N/A	N/A	N/A	N/A
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Probe Alignment Unit LB	N/A	N/A	N/A	N/A	SE UKS 030 AA
☒	Device Holder	SPEAG	SD000H01HA	N/A	N/A	N/A
☒	Device Holder	SPEAG	SD000H01HA	N/A	N/A	N/A
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Device Holder	SPEAG	SD000H01KA	N/A	N/A	N/A
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1895
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1786
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1785
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1679
☒	Twin SAM Phantom	SPEAG	QD000P40CD	N/A	N/A	1837
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2018-05-25	2019-05-25	1392
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2018-04-24	2019-04-24	1391
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2018-09-19	2019-09-19	1453
☒	Data Acquisition Electronics	SPEAG	DAE4V1	2018-07-23	2019-07-23	1335
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2018-09-25	2019-09-25	3933
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2018-11-22	2019-11-22	7337
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2018-04-25	2019-04-25	3916
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2018-05-31	2019-05-31	3866
☒	Dosimetric E-Field Probe	SPEAG	EX3DV4	2018-07-26	2019-07-26	3930
☒	750MHz SAR Dipole	SPEAG	D750V3	2019-01-25	2021-01-25	1049
☒	835MHz SAR Dipole	SPEAG	D835V2	2018-08-23	2020-08-23	4d159
☒	1800MHz SAR Dipole	SPEAG	D1800V2	2018-04-26	2020-04-26	2d202
☒	1900MHz SAR Dipole	SPEAG	D1900V2	2018-08-27	2020-08-27	5d176
☒	2450MHz SAR Dipole	SPEAG	D2450V2	2018-08-24	2020-08-24	920
☒	2600MHz SAR Dipole	SPEAG	D2600V2	2019-02-27	2021-02-27	1016
☒	5GHz SAR Dipole	SPEAG	D5GHzV2	2019-02-28	2021-02-28	1103
☒	Network Analyzer	Agilent	E5071C	2018-12-19	2019-12-19	MY46111534
☒	Signal Generator	Agilent	E4438C	2018-07-04	2019-07-04	US41461520
☒	Amplifier	RFBAY.Inc	MPA-40-40	2018-12-20	2019-12-20	21151801
☒	Amplifier	EMPOWER	BBS3Q7ELU	2018-07-10	2019-07-10	1020
☒	High Power RF Amplifier	EMPOWER	BBS3Q8CCJ	2018-07-06	2019-07-06	1005
☒	Power Meter	HP	EPM-442A	2018-12-19	2019-12-19	GB37170267
☒	Power Meter	HP	EPM-442A	2018-12-18	2019-12-18	GB37170413
☒	Power Meter	Anritsu	ML2495A	2018-07-04	2019-07-04	1435003
☒	Power Sensor	Anritsu	MA2490A	2018-07-04	2019-07-04	1409034
☒	Power Sensor	HP	8481A	2018-12-18	2019-12-18	US37294267
☒	Power Sensor	HP	8481A	2018-12-19	2019-12-19	3318A96566
☒	Power Sensor	HP	8481A	2018-12-19	2019-12-19	2702A65976
☒	Dual Directional Coupler	Agilent	778D-012	2018-12-19	2019-12-19	50228
☒	Directional Coupler	HP	772D	2018-07-03	2019-07-03	2889A01064
☒	Low Pass Filter 1GHz	Wainwright Instruments	WLK6-1000-1400-9000-60SS	2018-07-05	2019-07-05	165
☒	Low Pass Filter 1.5GHz	Micro LAB	LA-15N	2018-07-05	2019-07-05	2
☒	Low Pass Filter 3.0GHz	Micro LAB	LA-30N	2018-07-05	2019-07-05	2
☒	Low Pass Filter 6.0GHz	Micro LAB	LA-60N	2018-12-19	2019-12-19	03942
☒	Attenuators(3 dB)	Agilent	8491B	2018-12-19	2019-12-19	MY39260700
☒	Attenuators(10 dB)	WEINSCHEL	23-10-34	2018-12-19	2019-12-19	BP4387
☒	Dielectric Probe kit	SPEAG	DAK-3.5	2018-07-24	2019-07-24	1046
☒	8960 Series 10 Wireless Comms. Test Set	Agilent	E5515C	2018-07-04	2019-07-04	GB41321164
☒	Wideband Radio Communication Tester	Rohde Schwarz	CMW500	2019-03-06	2020-03-06	127323
☒	Wideband Radio Communication Tester	Rohde Schwarz	CMW500	2018-12-19	2019-12-19	101414
☒	Radio Communication Analyzer	KEYSIGHT	E7515A	2018-07-06	2019-07-06	MY55210201
☒	Radio Communication Analyzer	KEYSIGHT	E7515A	2018-12-19	2019-12-19	MY57270113
☒	Power Splitter	Anritsu	K241B	2018-12-18	2019-12-18	1301183
☒	Bluetooth Tester	TESCOM	TC-3000B	2018-12-18	2019-12-18	3000B770243

NOTE(S):
1. The E-field probe was calibrated by SPEAG, by temperature measurement procedure. Dipole Verification measurement is performed by DT&C before each test. The brain and muscle simulating material are calibrated by DT&C using the dielectric probe system and network analyzer to determine the conductivity and permittivity (dielectric constant) of the brain and muscle-equivalent material. Each equipment item was used solely within its respective calibration period.
2. CBT(Calibrated Before Testing). Prior to testing, the measurement paths containing a cable, amplifier, attenuator, coupler or filter were connected to a calibrated source (i.e. signal generator) to determine the losses of the measurement path. The power meter offset was then adjusted to compensate for the measurement system losses. This level offset is stored within the power meter before measurements are made. This calibration verification procedure applies to the system verification and output power measurements. The calibrated reading is then taken directly from the power meter after compensation of the losses for all final power measurements.

15. MEASUREMENT UNCERTAINTIES

750 MHz Head (SN: 3933)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.2	Normal	1	0.78	0.71	± 3.3 %	± 3.0 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.0	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3%	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.7 %**	**± 11.5 %**	330
Expanded Uncertainty (k=2)						**± 23.4 %**	**± 23.0 %**	

The above measurement uncertainties are according to IEEE Std 1528

750 MHz Body (SN: 3933)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.1	Normal	1	0.78	0.71	± 3.2 %	± 2.9 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.7	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2%	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

835 MHz Head (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.7	Normal	1	0.78	0.71	± 2.9 %	± 2.6 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.2	Normal	1	0.23	0.26	± 1.0 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3%	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

835 MHz Body (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.7	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

1800 MHz Head (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

1800 MHz Body (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.9	Normal	1	0.78	0.71	± 3.0 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.7	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

1900 MHz Head (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.2	Normal	1	0.23	0.26	± 1.0 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.9	Rectangular	√3	0.78	0.71	± 0.9 %	± 0.8 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

1900 MHz Body (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.8	Normal	1	0.78	0.71	± 3.0 %	± 2.7 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.9	Rectangular	√3	0.78	0.71	± 0.9 %	± 0.8 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

2450 MHz Head (SN: 3916)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.9	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

2450 MHz Body (SN: 3916)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.1	Normal	1	0.78	0.71	± 3.2 %	± 2.9 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.8	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

2600 MHz Head (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.1	Normal	1	0.78	0.71	± 3.2 %	± 2.9 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.8	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.9	Rectangular	√3	0.78	0.71	± 0.9 %	± 0.8 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

2600 MHz Body (SN: 7337)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.0	Normal	1	1	1	± 6.0 %	± 6.0 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.6 %**	**± 11.4 %**	330
Expanded Uncertainty (k=2)						**± 23.2 %**	**± 22.8 %**	

The above measurement uncertainties are according to IEEE Std 1528

5200 MHz Head (SN: 3866)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.2	Normal	1	0.23	0.26	± 1.0 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5200 MHz Body (SN: 3930)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1%	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.8	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8%	± 0.7%	∞
Temp. unc. - Permittivity	± 1.7	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5300 MHz Head (SN: 3866)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.8	Normal	1	0.78	0.71	± 3.0 %	± 2.7 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.9	Rectangular	√3	0.78	0.71	± 0.9 %	± 0.8 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5300 MHz Body (SN: 3930)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.9	Normal	1	0.78	0.71	± 3.0 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.9	Rectangular	√3	0.78	0.71	± 0.9 %	± 0.8 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5500 MHz Head (SN: 3866)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.2	Normal	1	0.78	0.71	± 3.3 %	± 3.0 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.8	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.7	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5500 MHz Body (SN: 3930)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.8	Normal	1	0.78	0.71	± 3.0 %	± 2.7 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.9	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.7	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5600 MHz Head (SN: 3866)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.1	Normal	1	0.78	0.71	± 3.2 %	± 2.9 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 3.8	Normal	1	0.23	0.26	± 0.9 %	± 1.0 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5600 MHz Body (SN: 3930)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.9	Normal	1	0.78	0.71	± 3.0 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.9	Rectangular	√3	0.78	0.71	± 0.9 %	± 0.8 %	∞
Temp. unc. - Permittivity	± 1.9	Rectangular	√3	0.23	0.26	± 0.3 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5800 MHz Head (SN: 3866)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 3.8	Normal	1	0.78	0.71	± 3.0 %	± 2.7 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.8	Rectangular	√3	0.78	0.71	± 0.8 %	± 0.7 %	∞
Temp. unc. - Permittivity	± 1.7	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

5800 MHz Body (SN: 3930)

Error Description	Uncertainty value ±%	Probability Distribution	Divisor	(Ci) 1g	(Ci) 10g	Standard (1g)	Standard (10g)	vi 2 or Veff
Measurement System								
Probe calibration	± 6.55	Normal	1	1	1	± 6.6 %	± 6.6 %	∞
Isotropy	± 1.3	Normal	1	1	1	± 1.3 %	± 1.3 %	∞
Boundary Effects	± 2.0	Rectangular	√3	1	1	± 1.2 %	± 1.2 %	∞
Probe Linearity	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Probe modulation response	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Detection limits	± 0.25	Rectangular	√3	1	1	± 0.14 %	± 0.14 %	∞
Readout Electronics	± 0.3	Normal	1	1	1	± 0.3 %	± 0.3 %	∞
Response time	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Integration time	± 2.6	Rectangular	√3	1	1	± 1.5 %	± 1.5 %	∞
RF Ambient Conditions – Noise	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
RF Ambient Conditions – Reflections	± 3.0	Rectangular	√3	1	1	± 1.7 %	± 1.7 %	∞
Probe Positioner	± 0.8	Rectangular	√3	1	1	± 0.46 %	± 0.46 %	∞
Probe Positioning	± 6.7	Rectangular	√3	1	1	± 3.9 %	± 3.9 %	∞
Algorithms for Max. SAR Eval.	± 4.0	Rectangular	√3	1	1	± 2.3 %	± 2.3 %	∞
Test Sample Related								
Device Positioning	± 2.9	Normal	1	1	1	± 2.9 %	± 2.9 %	145
Device Holder	± 3.6	Normal	1	1	1	± 3.6 %	± 3.6 %	5
Power Drift	± 5.0	Rectangular	√3	1	1	± 2.9 %	± 2.9 %	∞
SAR Scaling	± 0.0	Rectangular	√3	1	1	± 0.0 %	± 0.0 %	∞
Physical Parameters								
Phantom Shell	± 7.6	Rectangular	√3	1	1	± 4.4 %	± 4.4 %	∞
SAR correction	± 0.0	Normal	1	1	0.84	± 0.0 %	± 0.0 %	∞
Liquid conductivity (Target)	± 5.0	Rectangular	√3	0.64	0.43	± 1.8 %	± 1.2 %	∞
Liquid conductivity (Meas.)	± 4.0	Normal	1	0.78	0.71	± 3.1 %	± 2.8 %	10
Liquid permittivity (Target)	± 5.0	Rectangular	√3	0.60	0.49	± 1.7 %	± 1.4 %	∞
Liquid permittivity (Meas.)	± 4.1	Normal	1	0.23	0.26	± 0.9 %	± 1.1 %	10
Temp. unc. - Conductivity	± 1.9	Rectangular	√3	0.78	0.71	± 0.9 %	± 0.8 %	∞
Temp. unc. - Permittivity	± 1.8	Rectangular	√3	0.23	0.26	± 0.2 %	± 0.3 %	∞
Combined Standard Uncertainty						**± 11.9 %**	**± 11.7 %**	330
Expanded Uncertainty (k=2)						**± 23.8 %**	**± 23.4 %**	

The above measurement uncertainties are according to IEEE Std 1528

16. CONCLUSION

Measurement Conclusion

The SAR measurement indicates that the EUT complies with the RF radiation exposure limits of the FCC. These measurements are taken to simulate the RF effects exposure under the worst-case conditions. Precise laboratory measures were taken to assure repeatability of the tests. The tested device complies with the requirements in respect to all parameters subject to the test. The test results and statements relate only to the item(s) tested.

Please note that the absorption and distribution of electromagnetic energy in the body are every complex phenomena that depend on the mass, shape, and size of the body, the orientation of the body with respect to the field vectors, and the electrical properties of both the body and the environment. Other variables that may play a substantial role impossible biological effect are those that characterize the environment (e.g. ambient temperature, air velocity, relative humidity, and body insulation) and those that characterize the individual (e.g. age, gender, activity level, debilitation, or disease).

Because innumerable factors may interact to determine the specific biological outcome of an exposure to electromagnetic fields, any protection guide shall consider maximal amplification of biological effects as a result of field-body interactions, environmental conditions, and physiological variables.

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APPENDIX A. – Probe Calibration Data

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

S Schweizerischer Kalibrierdienst
C Service suisse d'étalonnage
S Servizio svizzero di taratura
S Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **DT&C (Dymstec)** Certificate No: **EX3-3933_Sep18**

CALIBRATION CERTIFICATE

Object EX3DV4 - SN:3933

Calibration procedure(s) QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6
Calibration procedure for dosimetric E-field probes

Calibration date: September 25, 2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	Dec-18
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-17)	In house check: Oct-18

	Name	Function	Signature
Calibrated by:	Claudio Leubler	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: September 27, 2018

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Probe EX3DV4

SN:3933

Manufactured: July 24, 2013
Calibrated: September 25, 2018

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

EX3DV4– SN:3933 September 25, 2018

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.50	0.52	0.19	± 10.1 %
DCP (mV)[B]	104.5	98.7	93.5	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	144.0	±2.7 %
		Y	0.0	0.0	1.0		147.5	
		Z	0.0	0.0	1.0		142.5	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

EX3DV4– SN:3933 September 25, 2018

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	41.9	0.89	10.76	10.76	10.76	0.35	1.00	± 12.0 %
835	41.5	0.90	10.26	10.26	10.26	0.46	0.83	± 12.0 %
900	41.5	0.97	9.91	9.91	9.91	0.43	0.80	± 12.0 %
1750	40.1	1.37	8.83	8.83	8.83	0.34	0.83	± 12.0 %
1900	40.0	1.40	8.54	8.54	8.54	0.25	0.80	± 12.0 %
2300	39.5	1.67	7.90	7.90	7.90	0.41	0.80	± 12.0 %
2450	39.2	1.80	7.61	7.61	7.61	0.21	1.16	± 12.0 %
2600	39.0	1.96	7.41	7.41	7.41	0.25	1.00	± 12.0 %
3500	37.9	2.91	7.30	7.30	7.30	0.27	1.20	± 13.1 %
3700	37.7	3.12	7.13	7.13	7.13	0.25	1.20	± 13.1 %
5200	36.0	4.66	5.24	5.24	5.24	0.40	1.80	± 13.1 %
5300	35.9	4.76	5.02	5.02	5.02	0.40	1.80	± 13.1 %
5500	35.6	4.96	4.87	4.87	4.87	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.71	4.71	4.71	0.40	1.80	± 13.1 %
5800	35.3	5.27	4.77	4.77	4.77	0.40	1.80	± 13.1 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

EX3DV4– SN:3933 September 25, 2018

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
750	55.5	0.96	10.43	10.43	10.43	0.32	1.02	± 12.0 %
835	55.2	0.97	10.27	10.27	10.27	0.44	0.80	± 12.0 %
900	55.0	1.05	10.20	10.20	10.20	0.42	0.80	± 12.0 %
1750	53.4	1.49	8.62	8.62	8.62	0.31	0.88	± 12.0 %
1900	53.3	1.52	8.21	8.21	8.21	0.38	0.80	± 12.0 %
2300	52.9	1.81	7.86	7.86	7.86	0.34	0.88	± 12.0 %
2450	52.7	1.95	7.75	7.75	7.75	0.34	0.95	± 12.0 %
2600	52.5	2.16	7.63	7.63	7.63	0.31	0.95	± 12.0 %
3500	51.3	3.31	7.13	7.13	7.13	0.30	1.25	± 13.1 %
3700	51.0	3.55	7.08	7.08	7.08	0.30	1.25	± 13.1 %
5200	49.0	5.30	4.67	4.67	4.67	0.50	1.90	± 13.1 %
5300	48.9	5.42	4.51	4.51	4.51	0.50	1.90	± 13.1 %
5500	48.6	5.65	4.14	4.14	4.14	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.01	4.01	4.01	0.50	1.90	± 13.1 %
5800	48.2	6.00	4.10	4.10	4.10	0.50	1.90	± 13.1 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

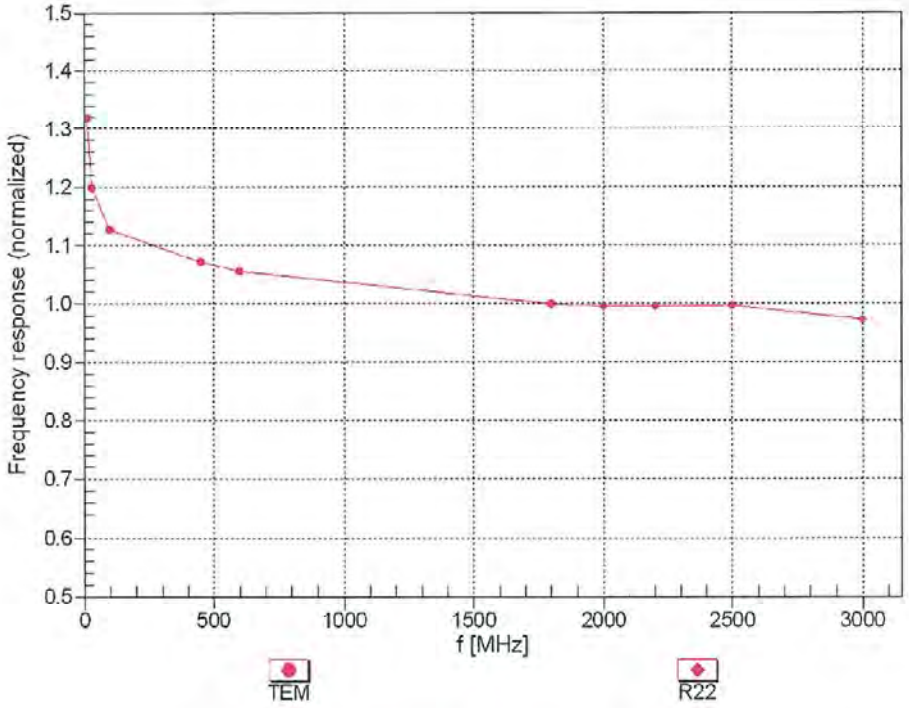
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

EX3DV4– SN:3933 September 25, 2018

Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)



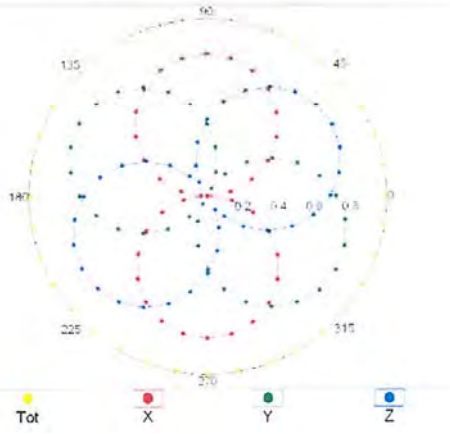
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

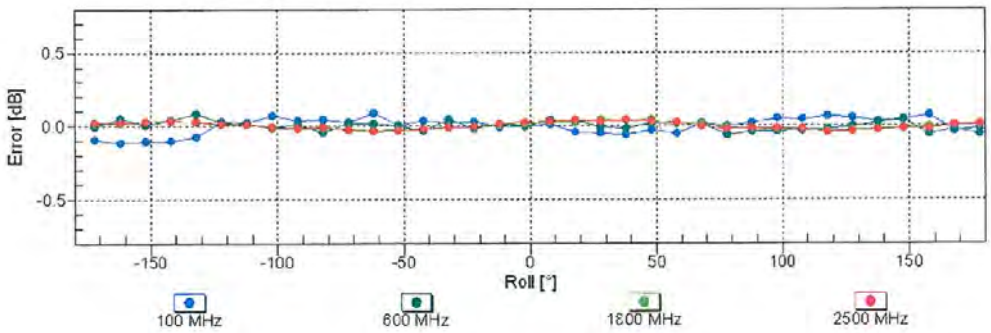
EX3DV4– SN:3933 September 25, 2018

Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM

f=1800 MHz,R22

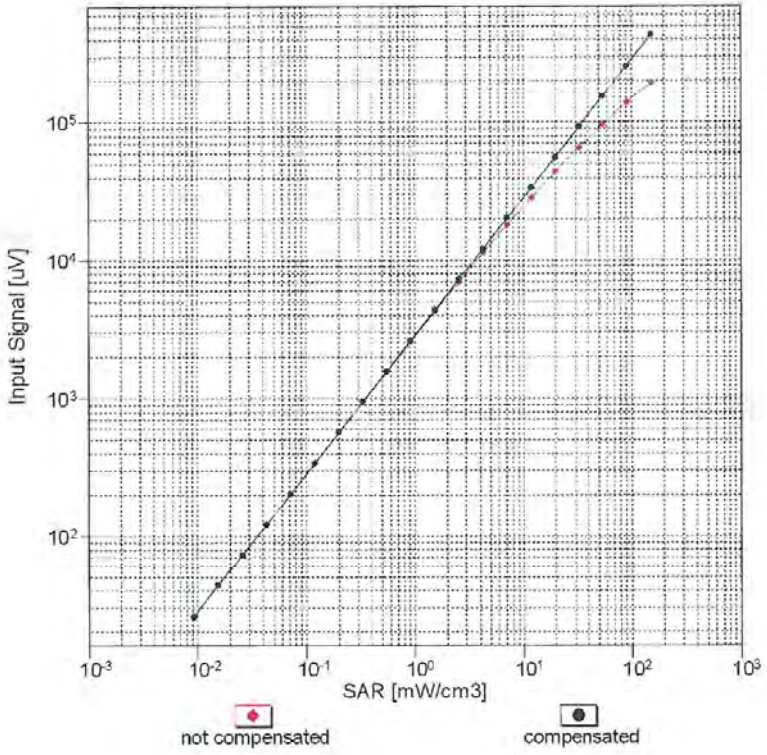


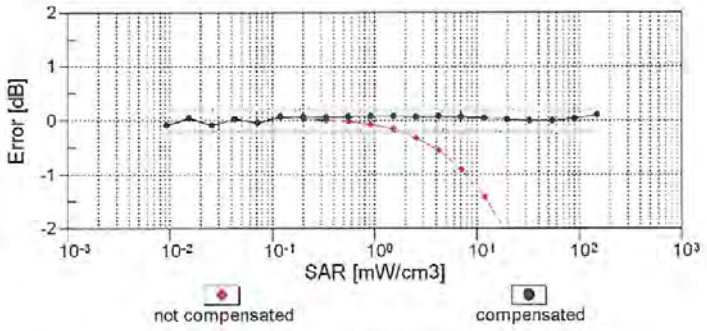


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

EX3DV4– SN:3933 September 25, 2018

Dynamic Range f(SAR$_{head}$)
(TEM cell , f_{eval}= 1900 MHz)



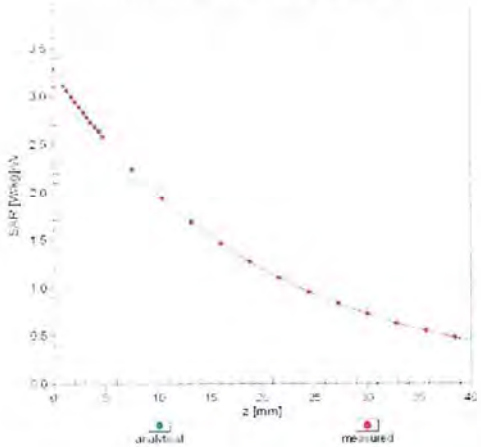


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

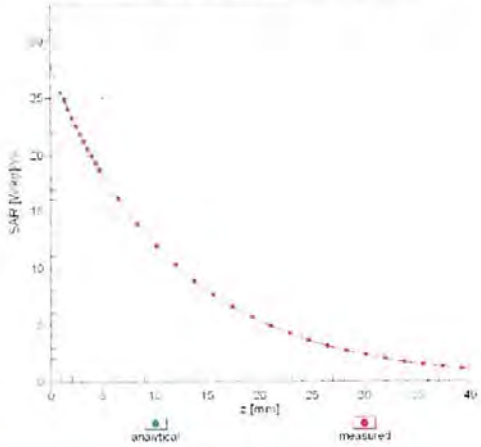
EX3DV4– SN:3933 September 25, 2018

Conversion Factor Assessment

f = 835 MHz,WGLS R9 (H_convF)

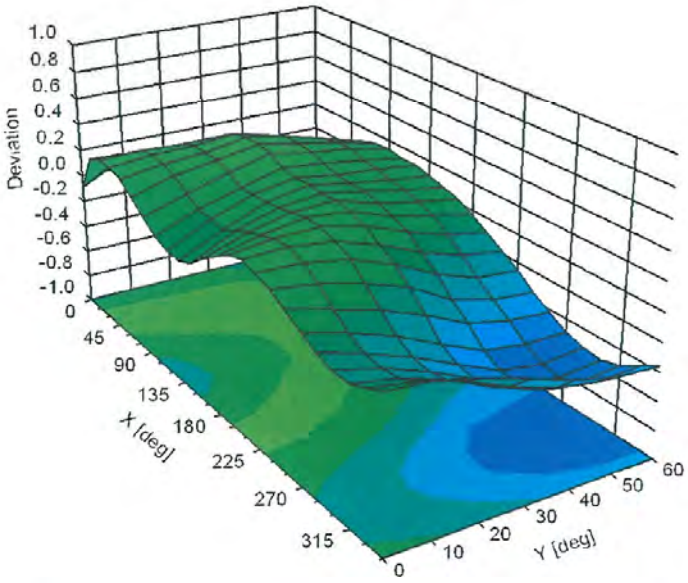


f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz



Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:3933

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	77.9
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

Calibration Laboratory of
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Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Swiss Calibration Service

Accredited by the Swiss Accreditation Service (SAS)
The Swiss Accreditation Service is one of the signatories to the EA Multilateral Agreement for the recognition of calibration certificates

Accreditation No.: **SCS 0108**

Client **DT&C (Dymstec)** Certificate No: **EX3-7337_Nov18**

CALIBRATION CERTIFICATE

Object	EX3DV4 - SN:7337
Calibration procedure(s)	QA CAL-01.v9, QA CAL-14.v4, QA CAL-23.v5, QA CAL-25.v6 Calibration procedure for dosimetric E-field probes
Calibration date:	November 22, 2018

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements (SI).
The measurements and the uncertainties with confidence probability are given on the following pages and are part of the certificate.

All calibrations have been conducted in the closed laboratory facility: environment temperature (22 ± 3)°C and humidity < 70%.

Calibration Equipment used (M&TE critical for calibration)

Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
Power sensor NRP-Z91	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
Reference Probe ES3DV2	SN: 3013	30-Dec-17 (No. ES3-3013_Dec17)	Dec-18
DAE4	SN: 660	21-Dec-17 (No. DAE4-660_Dec17)	Dec-18
Secondary Standards	ID	Check Date (in house)	Scheduled Check
Power meter E4419B	SN: GB41293874	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: MY41498087	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
Power sensor E4412A	SN: 000110210	06-Apr-16 (in house check Jun-18)	In house check: Jun-20
RF generator HP 8648C	SN: US3642U01700	04-Aug-99 (in house check Jun-18)	In house check: Jun-20
Network Analyzer E8358A	SN: US41080477	31-Mar-14 (in house check Oct-18)	In house check: Oct-19

	Name	Function	Signature
Calibrated by:	Jeton Kastrati	Laboratory Technician	
Approved by:	Katja Pokovic	Technical Manager	

Issued: November 22, 2018

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

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Accreditation No.: SCS 0108

Glossary:

TSL	tissue simulating liquid
NORMx,y,z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diode compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization φ	φ rotation around probe axis
Polarization ϑ	ϑ rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., ϑ = 0 is normal to probe axis
Connector Angle	information used in DASY system to align probe sensor X to the robot coordinate system

Calibration is Performed According to the Following Standards:

a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013
b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
c) IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010
d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz"

Methods Applied and Interpretation of Parameters:

- *NORMx,y,z:* Assessed for E-field polarization ϑ = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E^2-field uncertainty inside TSL (see below *ConvF*).
- *NORM(f)x,y,z = NORMx,y,z * frequency_response* (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of *ConvF*.
- *DCPx,y,z:* DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- *PAR:* PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- *Ax,y,z; Bx,y,z; Cx,y,z; Dx,y,z; VRx,y,z: A, B, C, D* are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. *VR* is the maximum calibration range expressed in RMS voltage across the diode.
- *ConvF and Boundary Effect Parameters:* Assessed in flat phantom using E-field (or Temperature Transfer Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to *NORMx,y,z * ConvF* whereby the uncertainty corresponds to that given for *ConvF*. A frequency dependent *ConvF* is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- *Spherical isotropy (3D deviation from isotropy)*: in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- *Sensor Offset*: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- *Connector Angle*: The angle is assessed using the information gained by determining the *NORMx* (no uncertainty required).

Probe EX3DV4

SN:7337

Manufactured: July 23, 2014
Calibrated: November 22, 2018

Calibrated for DASY/EASY Systems
(Note: non-compatible with DASY2 system!)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7337

Basic Calibration Parameters

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm ($\mu V/(V/m)^2$)[A]	0.53	0.59	0.56	± 10.1 %
DCP (mV)[B]	98.7	97.6	100.6	

Modulation Calibration Parameters

UID	Communication System Name		A dB	B dB√μV	C	D dB	VR mV	Unc[E] (k=2)
0	CW	X	0.0	0.0	1.0	0.00	148.8	±3.5 %
		Y	0.0	0.0	1.0		159.0	
		Z	0.0	0.0	1.0		150.6	

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

[A] The uncertainties of Norm X,Y,Z do not affect the E^2-field uncertainty inside TSL (see Pages 5 and 6).
[B] Numerical linearization parameter: uncertainty not required.
[E] Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7337

Calibration Parameter Determined in Head Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
835	41.5	0.90	10.16	10.16	10.16	0.60	0.80	± 12.0 %
900	41.5	0.97	10.04	10.04	10.04	0.38	1.02	± 12.0 %
1750	40.1	1.37	8.96	8.96	8.96	0.37	0.87	± 12.0 %
1900	40.0	1.40	8.49	8.49	8.49	0.38	0.85	± 12.0 %
2450	39.2	1.80	7.66	7.66	7.66	0.42	0.86	± 12.0 %
2600	39.0	1.96	7.43	7.43	7.43	0.36	0.96	± 12.0 %
5200	36.0	4.66	5.67	5.67	5.67	0.40	1.80	± 13.1 %
5300	35.9	4.76	5.46	5.46	5.46	0.40	1.80	± 13.1 %
5500	35.6	4.96	5.05	5.05	5.05	0.40	1.80	± 13.1 %
5600	35.5	5.07	4.86	4.86	4.86	0.40	1.80	± 13.1 %
5800	35.3	5.27	5.06	5.06	5.06	0.40	1.80	± 13.1 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7337

Calibration Parameter Determined in Body Tissue Simulating Media

f (MHz) [C]	Relative Permittivity [F]	Conductivity (S/m) [F]	ConvF X	ConvF Y	ConvF Z	Alpha [G]	Depth [G] (mm)	Unc (k=2)
835	55.2	0.97	10.23	10.23	10.23	0.51	0.80	± 12.0 %
900	55.0	1.05	10.13	10.13	10.13	0.43	0.80	± 12.0 %
1750	53.4	1.49	8.42	8.42	8.42	0.41	0.83	± 12.0 %
1900	53.3	1.52	8.03	8.03	8.03	0.43	0.86	± 12.0 %
2450	52.7	1.95	7.74	7.74	7.74	0.39	0.95	± 12.0 %
2600	52.5	2.16	7.59	7.59	7.59	0.23	1.05	± 12.0 %
5200	49.0	5.30	5.15	5.15	5.15	0.50	1.90	± 13.1 %
5300	48.9	5.42	4.95	4.95	4.95	0.50	1.90	± 13.1 %
5500	48.6	5.65	4.45	4.45	4.45	0.50	1.90	± 13.1 %
5600	48.5	5.77	4.28	4.28	4.28	0.50	1.90	± 13.1 %
5800	48.2	6.00	4.55	4.55	4.55	0.50	1.90	± 13.1 %

[C] Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz.

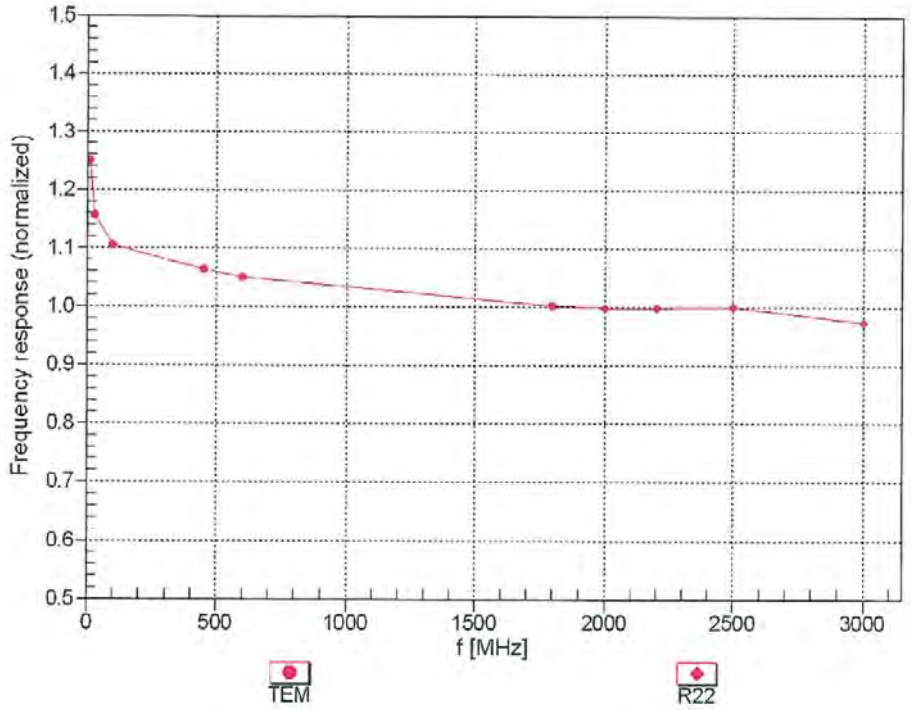
[F] At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.

[G] Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

EX3DV4- SN:7337 November 22, 2018

Frequency Response of E-Field

(TEM-Cell:ifi110 EXX, Waveguide: R22)

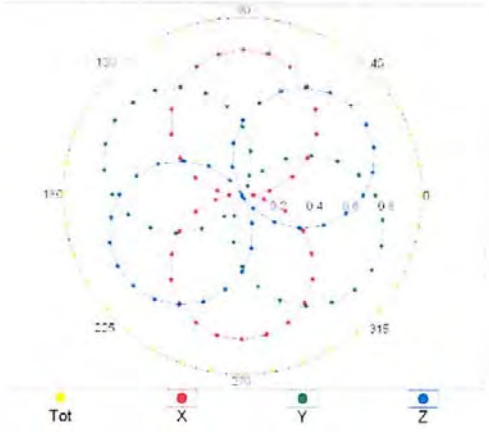


Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

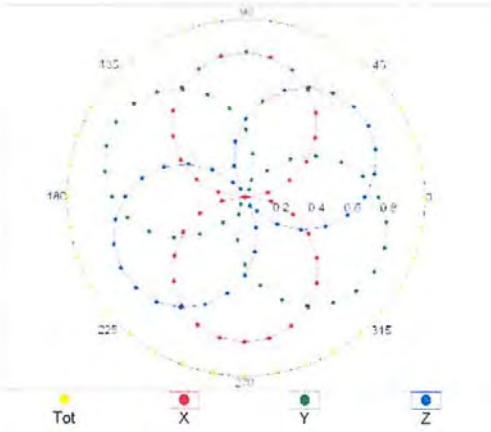
EX3DV4– SN:7337 November 22, 2018

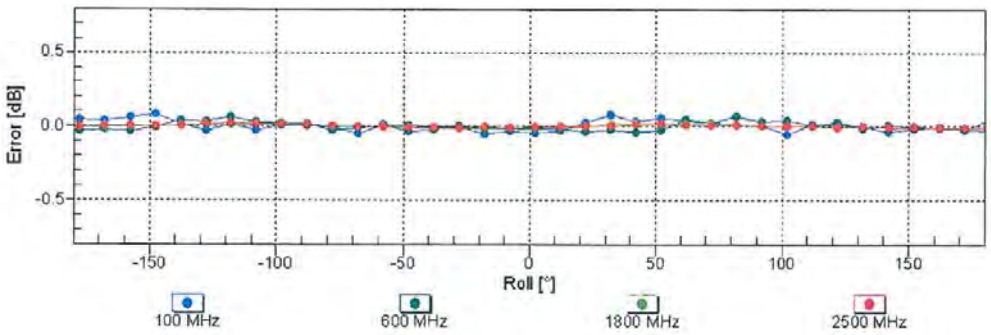
Receiving Pattern (ϕ), ϑ = 0°

f=600 MHz,TEM



f=1800 MHz,R22

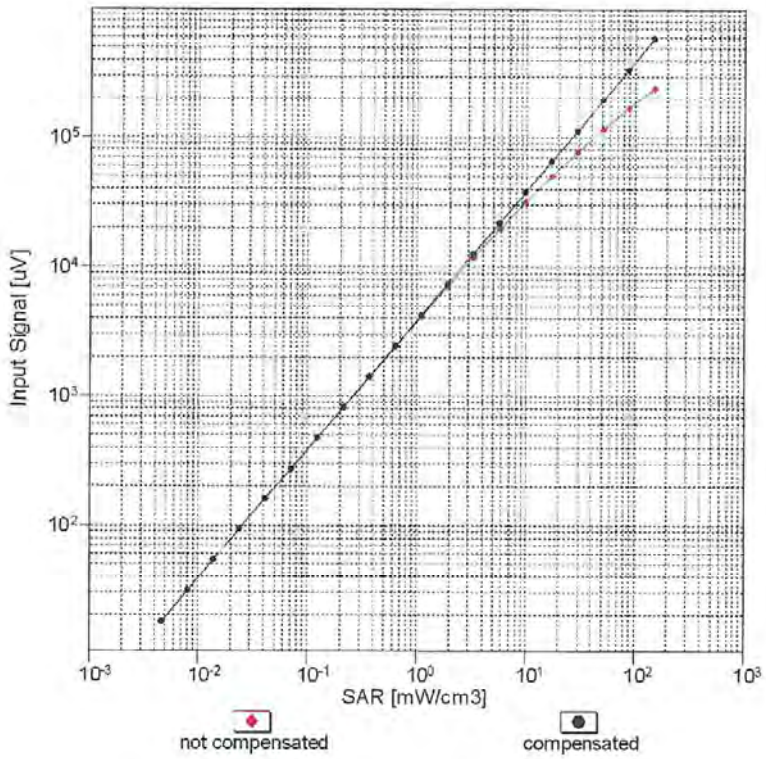


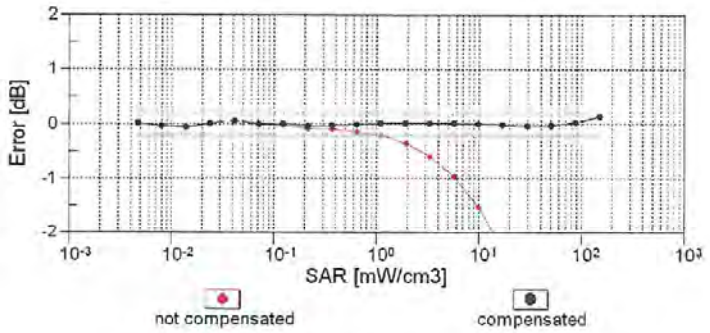


Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

EX3DV4– SN:7337 November 22, 2018

Dynamic Range f(SAR_{head})
(TEM cell , f_{eval}= 1900 MHz)



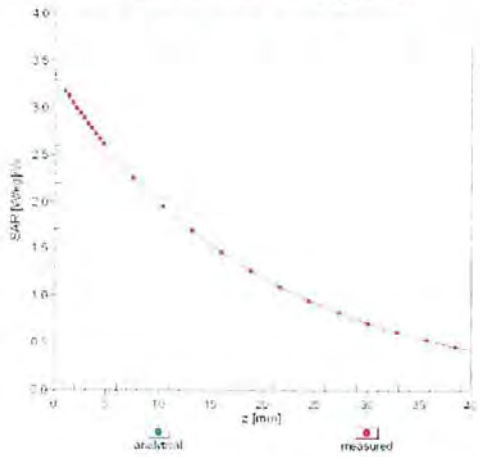


Uncertainty of Linearity Assessment: ± 0.6% (k=2)

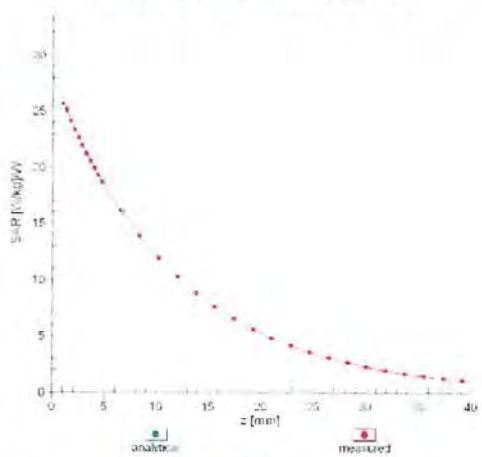
EX3DV4– SN:7337 November 22, 2018

Conversion Factor Assessment

f = 835 MHz,WGLS R9 (H_convF)

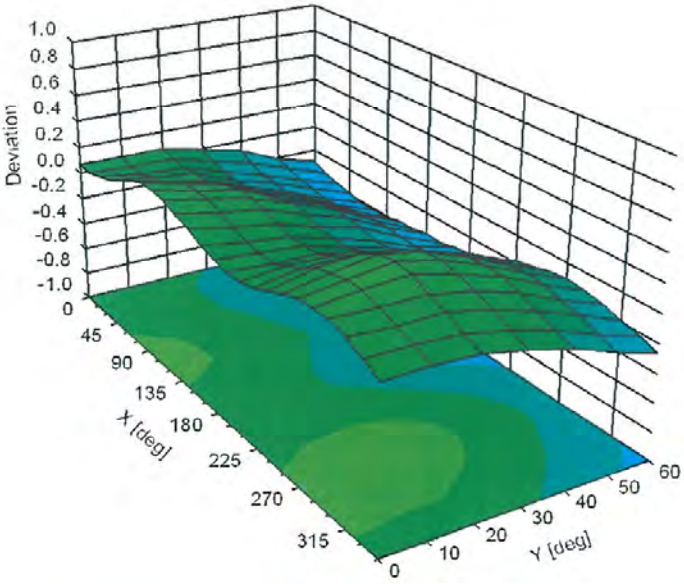


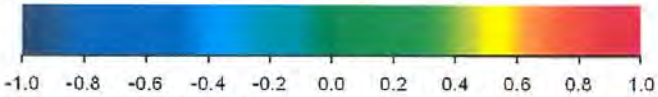
f = 1900 MHz,WGLS R22 (H_convF)



Deviation from Isotropy in Liquid

Error (ϕ, ϑ), f = 900 MHz





Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

DASY/EASY - Parameters of Probe: EX3DV4 - SN:7337

Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	62.1
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm