

# FCC SAR TEST REPORT

**FCC ID** : 2ABZ2-EF009  
**Equipment** : Smart Phone  
**Brand Name** : ONEPLUS  
**Model Name** : KB2005  
**Applicant** : OnePlus Technology (Shenzhen) Co., Ltd.  
18C02, 18C03, 18C04,18C05, Shum Yip Terra Building,  
Binhe Avenue North, Futian District, Shenzhen,  
Guangdong, China  
**Manufacturer** : OnePlus Technology (Shenzhen) Co., Ltd.  
18C02, 18C03, 18C04,18C05, Shum Yip Terra Building,  
Binhe Avenue North, Futian District, Shenzhen,  
Guangdong, China  
**Standard** : FCC 47 CFR Part 2 (2.1093)  
ANSI/IEEE C95.1-1992  
IEEE 1528-2013

The product was received on Jun. 15, 2020 and testing was started from Jul. 02, 2020 and completed on Aug. 07, 2020. We, Sporton International (ShenZhen) Inc., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of Sporton International (ShenZhen) Inc., the test report shall not be reproduced except in full.



Reviewed by: Long Liang / Supervisor



Approved by: Johnny Chen / Manager



**Sporton International (ShenZhen) Inc.**  
1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055  
People's Republic of China



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### History of this test report

Report No.	Version	Description	Issued Date
FA061509-03	01	Initial issue of report	Aug. 25, 2020



### 1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for OnePlus Technology (Shenzhen) Co., Ltd., Smart Phone, KB2005, are as follows.

Frequency Band		Highest SAR Summary				Highest Simultaneous Transmission 1g SAR (W/kg)
		Head (Separation 0mm)	Body-worn (Separation 15mm)	Hotspot (Separation 10mm)	Product Specific (Separation 0mm)	
		1g SAR (W/kg)			10g SAR (W/kg)	
GSM	GSM850	1.03	0.44	0.58		1.29
	GSM1900	0.70	0.38	0.52		
WCDMA	WCDMA V	0.96	0.43	0.62		
	WCDMA IV	<b>1.09</b>	0.70	0.64	2.17	
	WCDMA II	1.08	0.69	0.57	2.32	
CSMA	CDMA2000 BC0	0.92	0.39	0.84	0.95	
	CDMA2000 BC10	0.95	0.41	0.77	1.04	
	CDMA2000 BC1	0.89	0.63	0.82	2.52	
LTE	LTE Band 71	0.95	0.39	0.73		
	LTE Band 12 / 17	1.04	0.52	0.70	1.17	
	LTE Band 13	0.96	0.47	0.58		
	LTE Band 5	0.91	0.45	0.58		
	LTE Band 26	1.03	0.50	0.68		
	LTE Band 66 / 4	0.91	0.64	0.55	2.38	
	LTE Band 25 / 2	1.01	0.63	0.61	1.96	
	LTE Band 30	1.01	0.73	0.44	1.90	
	LTE Band 7	0.67	0.65	0.55	2.31	
	LTE Band 41 / 38	0.59	0.52	0.58		
NR	LTE Band 48	1.01	<b>0.83</b>	0.29		
	N71	0.90	0.31	0.86		
	N66	0.85	0.48	0.84	2.65	
	N2	0.83	0.63	<b>1.04</b>	2.63	
	N25	0.81	0.69	0.97	<b>2.78</b>	
	N41	1.05	0.35	0.88	2.50	
WLAN	N5	1.04	0.33	0.84		
	2.4GHz WLAN	0.82	0.73	0.89	2.35	
2.4GHz Band	5GHz WLAN	0.94	0.74	0.99	2.19	
	Bluetooth	0.26	0.05	0.15		
Date of Testing:		2020/07/02 ~ 2020/08/07				

**Remark:**

This device supports both LTE B4/17/38/2 and B66/12/41/25. Since the supported frequency span for LTE B4/17/38/2 falls completely within the supports frequency span for LTE B66/12/41/25, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B66/12/41/25.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6W/kg as averaged over any 1 gram of tissue; 10-gram SAR for Product Specific 10g SAR, limit: 4.0W/kg) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.



### 2. Administration Data

Sporton International (Shenzhen) Inc. is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.01.

Testing Laboratory		
Test Firm	Sporton International (Shenzhen) Inc.	
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595	
Test Site No.	FCC Designation No.	FCC Test Firm Registration No.
	CN1256	421272

### 3. Guidance Applied

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

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
- FCC KDB 941225 D07 UMPC Mini Tablet v01r02



**4. Equipment Under Test (EUT) Information**

**4.1 General Information**

Product Feature & Specification	
Equipment Name	Smart Phone
Brand Name	ONEPLUS
Model Name	KB2005
FCC ID	2ABZ2-EF009
IMEI Code	IMEI: 990016770042578
Wireless Technology and Frequency Range	GSM850: 824.2 MHz ~ 848.8 MHz GSM1900: 1850.2 MHz ~ 1909.8 MHz WCDMA Band II: 1852.4 MHz ~ 1907.6 MHz WCDMA Band IV: 1712.4 MHz ~ 1752.6 MHz WCDMA Band V: 826.4 MHz ~ 846.6 MHz CDMA2000 BC0: 824.7 MHz ~ 848.31 MHz CDMA 2000 BC1: 1851.25 MHz ~ 1908.75 MHz CDMA 2000 BC10: 817.9 MHz ~ 823.1 MHz LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz 5G NR n2 : 1852.5 MHz ~ 1907.5 MHz 5G NR n5 : 826.5 MHz ~ 846.5 MHz 5G NR n25 : 1852.5 MHz ~ 1912.5 MHz 5G NR n41 : 2506 MHz ~ 2680 MHz 5G NR n66 : 1712.5 MHz ~ 1777.5 MHz 5G NR n71 : 665.5 MHz ~ 695.5 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz ANT+: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS AMR / RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink) CDMA2000 : 1xRTT/1xEv-Do(Rel.0)/1xEv-Do(Rev.A) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR : CP-OFDM / DFT-s-OFDM , PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz : 802.11b/g/n HT20/HT40 WLAN 2.4GHz : 802.11ax HE20/HE40 WLAN 5GHz : 802.11a/n/ac/ax HT20/HT40/VHT20/VHT40/VHT80/HE20/HE40/HE80 Bluetooth BR/EDR/LE NFC:ASK ANT+: GFSK
HW Version	13
SW Version	OXYGEN OS 11. KB05AA



<b>GSM / (E)GPRS Transfer mode</b>	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
<b>EUT Stage</b>	Production Unit

**Remark:**

- This device supports VoIP in GPRS, EGPRS, CDMA, WCDMA and LTE (e.g. for 3rd-party VoIP) and LTE supports VoLTE operation.
- This device does not support DTM operation and supports GRPS/EGRPS mode up to multi-slot class 33.
- This device has WWAN UAT and LAT transmitter antennas which can refer to antenna location chapter.
- The 2.4GHz/5GHz WLAN can transmit in MIMO antenna mode only and has no transmission in SISO antenna mode.
- This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications.
- For WWAN UAT antenna, when the audio is actively routed through the earpiece receiver, then power reduction will be implemented immediately.
  - Reduced power level 1-While the device WWAN is transmitting at the WWAN Top antenna.
  - Reduced power level 2-While the device WLAN 2.4GHz is transmitting simultaneously with the WWAN Top antenna
  - Reduced power level 3-While the device WLAN 5GHz is transmitting simultaneously with the WWAN Top antenna
  - Reduced power level 4-While the device WLAN 2.4GHz and WLAN 5GHz is transmitting simultaneously with the WWAN Top antenna
- For WWAN UAT antenna, hotspot mode is enabled, power reduction will be activated to limit the maximum power.
- For WWAN LAT antenna, hotspot mode is enabled, power reduction will be activated to limit the maximum power.
- For WWAN LAT antenna, when the p-sensor is detect handheld state, power reduction will be activated to limit the maximum power.
- For WLAN when transmit standalone or transmit simultaneous with WWAN LAT or UAT, power reduction will be activated to limit the different maximum power level for head / hotspot / body-worn / extremity.
  - Reduced power level 1- While the device WLAN is transmitting standalone.
  - Reduced power level 2- While the device WLAN2.4GHz/5GHz is transmitting simultaneously with the WWAN antenna.
  - Reduced power level 3-While the device WLAN 2.4GHz is transmitting simultaneously with the WLAN 5GHz
  - Reduced power level 4-While the device WLAN 2.4GHz and WLAN 5GHz is transmitting simultaneously with the WWAN Top antenna
- For Bluetooth antenna, when the audio is actively routed through the earpiece receiver, then power reduction will be implemented immediately.
- The device implements the power management and sensor detection for SAR compliance at different exposure conditions (head, body-worn, hotspot/extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description.
- This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the GSM, WCDMA, LTE and 5GNR modes. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner and supplemental data for additional information on section 21.
- For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
- This device supports HPUE for LTE band 41, 5G NR SA n41 with class 2 level, so HPUE SAR has been performed.
- NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA standalone total power level SAR can represent NSA mode SAR. For 5GNR n5 only supports NSA mode, so n5 NSA mode SAR performed separately.
- 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
- 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
- For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
- This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode.
- For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
- This is a variant report for KB2005.For model change note, Please refer to the product equality declaration exhibit submitted. According to the PED. Based on the similarity between previous and current project, We found the single SIM card data can represent the dual SIM card data, so all the test cases were leveraged from original report (Sporton Report Number FA061509)



<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n25	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20
	n71	FDD	15	5, 10, 15, 20
	n41	TDD	30	20, 40, 50, 60, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20
	n25	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20
	n71	FDD	15	5, 10, 15, 20
	n41	TDD	30	20, 40, 50, 60, 80, 90, 100





4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	2ABZ2-EF009																																																														
Equipment Name	Smart Phone																																																														
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850.7 MHz ~ 1909.3 MHz LTE Band 4: 1710.7 MHz ~ 1754.3 MHz LTE Band 5: 824.7 MHz ~ 848.3 MHz LTE Band 7: 2502.5 MHz ~ 2567.5 MHz LTE Band 12: 699.7 MHz ~ 715.3 MHz LTE Band 13: 779.5 MHz ~ 784.5 MHz LTE Band 17: 706.5 MHz ~ 713.5 MHz LTE Band 25: 1850.7 MHz ~ 1914.3 MHz LTE Band 26: 814.7 MHz ~ 848.3 MHz LTE Band 30: 2307.5 MHz ~ 2312.5 MHz LTE Band 38: 2572.5 MHz ~ 2617.5 MHz LTE Band 41: 2498.5 MHz ~ 2687.5 MHz LTE Band 48: 3552.5 MHz ~ 3697.5 MHz LTE Band 66: 1710.7 MHz ~ 1779.3 MHz LTE Band 71: 665.5 MHz ~ 695.5 MHz																																																														
Channel Bandwidth	LTE Band 02: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 04: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 05: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 07: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 30: 5MHz, 10MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz																																																														
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM																																																														
LTE Voice / Data requirements	Voice and Data																																																														
LTE MPR permanently built-in by design	<p align="center"><b>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</b></p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (<math>N_{RB}</math>)</th> <th rowspan="2">MPR (dB)</th> </tr> <tr> <th>1.4 MHz</th> <th>3.0 MHz</th> <th>5 MHz</th> <th>10 MHz</th> <th>15 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>&gt; 5</td> <td>&gt; 4</td> <td>&gt; 8</td> <td>&gt; 12</td> <td>&gt; 16</td> <td>&gt; 18</td> <td>≤ 3</td> </tr> <tr> <td>256 QAM</td> <td colspan="6" style="text-align: center;">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>	Modulation	Channel bandwidth / Transmission bandwidth ( $N_{RB}$ )						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
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256 QAM	≥ 1						≤ 5																																																								
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)																																																														
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																														
Power reduction applied to satisfy SAR compliance	Yes, receiver detected /hotspot /proximity sensor will trigger reduced power for some LTE bands, the detail please referred to section 13.																																																														
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 13.																																																														
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for LTE B41/B48/B66 with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 5 carriers in the downlink and 2 carriers in the uplink. Additional following LTE Release features are not supported: Relay, HetNet, Enhanced MIMO, eICI, WiFi Offloading, MDH, eMBMA, Cross-Carrier Scheduling, Enhanced SC-FDMA.																																																														



Transmission (H, M, L) channel numbers and frequencies in each LTE band																
LTE Band 2																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860				
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880				
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900				
LTE Band 4																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720				
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5				
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745				
LTE Band 5																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20407	824.7	20415	825.5	20425	826.5	20450	829	20450	829	20450	829				
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5				
H	20643	848.3	20635	847.5	20625	846.5	20600	844	20600	844	20600	844				
LTE Band 7																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510				
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535				
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560				
LTE Band 12																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5				
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711				
LTE Band 13																
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23255		784.5		23280		787	
M	23230		782		23255		784.5		23280		787		23305		789.5	
H	23255		784.5		23280		787		23305		789.5		23330		792	
LTE Band 17																
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23755		706.5		23780		709		23805		712		23830		715	
M	23790		710		23815		713		23840		716		23865		719	
H	23825		713.5		23850		716.5		23875		719.5		23900		722	
LTE Band 25																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860				
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880				
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905				



LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 30												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)					
L	27685		2307.5		27710		2310					
M	27710		2310									
H	27735		2312.5									
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				
LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
L	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M												
M	40620	2593	40620	2593	40620	2593	40620	2593				
H	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
M												
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
LTE Band 48												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560				
L	55810	3607	55815	3607.5	55820	3608	55830	3609				
M												
M	56170	3643	56165	3642.5	56160	3642	56150	3641				
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770
LTE Band 71												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	133147	665.5	133172	668	133197	670.5	133222	673				
M	133297	680.5	133297	680.5	133297	680.5	133297	680.5				
H	133447	695.5	133422	693	133397	690.5	133372	688				



### 5. Smart Transmit feature for RF Exposure compliance

WWAN bands are enabled with Qualcomm Smart Transmit feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time.

Note that WLAN operations are not enabled with Smart Transmit.

The FCC RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

The purpose of this report (Part 1 test) is to demonstrate that the EUT meets FCC SAR limits when transmitting in static transmission scenario at maximum allowable time-averaged power levels.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System (EFS) to enable the Smart Transmit Feature.

#### <Terminologies in this report>

<b>P<sub>limit</sub></b>	The time-averaged RF power which corresponds to SAR_design_targer.
<b>P<sub>max</sub></b>	Maximum target power level
<b>SAR_design_target:</b>	The design target for SAR compliance. It should be less than regulatory SAR limit to account for all device design related uncertainties.
<b>SAR char</b>	P <sub>limit</sub> for all the technologies/bands for all applicable DSI

#### <SAR Characterization>

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at 6 GHz or below. It will then be used as input for Smart Transmit to control and manage RF exposure for f < 6 GHz.

#### <SAR design target and uncertainty>

The detail SAR design target relate to each exposure conditions pls refer to operation description

	Uncertainty dB (k=2)
Total uncertainty	1.0

To account for total uncertainty, SAR\_design\_target should be determined as:

$$SAR_{design\_target} < SAR_{regulatory\_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$



Smart Transmit allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device State Index DSI).

**<P<sub>limit</sub> for supported technologies and bands (P<sub>limit</sub> in EFS file)> for UAT**

Band	Antenna	Head	Head	Head	Body Worn	Hotspot	Extremity	Pmax*
		(DSI2)	Sim-2Tx (DSI3)	Sim-3Tx (DSI16)	(DSI0)	(DSI5)	(DSI9)	
GSM850(3 Tx slots)**	0	23.1	22.2	18.6	26.5	22.3	24.0	24.0
GSM1900(3 Tx slots)**	2	16.6	15.8	13.2	23.6	18.1	19.2	19.2
WCDMA II	2	17.5	16.6	14.1	25.5	19.0	21.8	21.8
WCDMA IV	2	17.7	16.8	14.2	25.6	20.1	21.8	21.8
WCDMA V	0	21.6	20.7	18.2	25.3	20.9	23.3	23.3
CDMA BC0	0	20.3	20.3	17.9	26.3	21.2	23.3	23.3
CDMA BC1	2	16.4	15.6	13.0	23.6	19.4	21.8	21.8
CDMA BC10	0	20.4	19.5	16.9	25.5	21.1	23.3	23.3
LTE B2/25	2	16.0	15.2	12.6	24.1	18.1	20.8	20.8
LTE B2 <sup>1</sup>	0	18.8	18.8	18.8	25.4	19.8	22.8	22.8
LTE B66/4	2	15.7	14.9	12.3	24.0	18.8	20.8	20.8
LTE B66 <sup>2</sup>	0	18.8	18.8	18.8	25.3	19.8	22.8	22.8
LTE B5	0	20.3	19.4	16.9	24.2	20.0	22.3	22.3
LTE B7	2	15.0	14.1	11.6	21.0	15.5	19.8	19.8
LTE B12/B17	0	20.0	18.1	16.6	23.5	19.7	22.3	22.3
LTE B13	0	20.7	19.9	17.3	24.0	20.0	22.3	22.3
LTE B26	0	19.9	19.1	16.5	23.7	20.0	22.3	22.3
LTE B30	2	16.3	15.4	12.9	24.0	18.0	20.5	20.5
LTE B41 PC3/38**	2	14.9	14.0	11.5	20.8	14.4	18.7	17.8
LTE B41 PC2	2	14.9	14.0	11.5	20.8	14.4	18.7	18.7
LTE B48**	2	15.1	14.2	11.7	20.8	14.1	20.8	20.8
LTE B71	0	20.9	20.0	17.5	24.8	21.0	22.3	22.3
NR_n2	2	14.9	14.9	14.9	22.4	16.8	20.8	20.8
NR_n5	0	21.3	18.2	18.2	26.0	22.3	22.3	22.3
NR_n25	2	14.9	14.9	14.9	22.9	16.8	20.8	20.8
NR_n66	2	14.2	14.2	14.2	23.8	18.8	20.8	20.8
NR_n71	0	21.0	17.7	17.7	26.2	22.3	22.3	22.3
NR_n41**	2	15.4	15.4	15.4	22.0	17.5	20.0	20.0

Note1: LTE Band 2 ant 0 only for EN-DC combination and LTE inter-band uplink CA

Note2: LTE Band 66 ant 0 only for EN-DC combination

**<P<sub>limit</sub> for supported technologies and bands (P<sub>limit</sub> in EFS file)> for LAT**

Band	Antenna	Head	Body Worn	Hotspot	Extremity	P <sub>max</sub> *
		(DS10)	(DS10)	(DS15)	(DS18)	
GSM850(3 Tx slots)**	1	26.6	26.6	25.5	24.5	24.5
GSM1900(3 Tx slots)**	3	24.4	24.4	19.6	21.2	21.2
WCDMA II	3	23.8	23.8	18.4	19.9	23.8
WCDMA IV	3	23.8	23.8	18.8	20.0	23.8
WCDMA V	1	25.9	25.9	24.2	23.8	23.8
CDMA BC0	1	26.3	26.3	22.6	23.8	23.8
CDMA BC1	3	24.2	24.2	19.9	20.6	23.8
CDMA BC10	1	26.5	26.5	22.3	23.8	23.8
LTE B2/25	3	22.8	22.8	17.8	18.8	22.8
LTE B66/4	3	22.8	22.8	18.2	19.5	22.8
LTE B5	1	25.1	25.1	24.1	22.8	22.8
LTE B7	3	23.1	23.1	18.9	18.7	22.8
LTE B12/B17	1	24.3	24.3	23.1	22.8	22.8
LTE B13	1	25.3	25.3	23.7	22.8	22.8
LTE B26	1	24.4	24.4	21.2	22.8	22.8
LTE B30	3	22.8	22.8	17.5	17.8	22.8
LTE B41 PC3/38**	3	22.7	22.7	18.7	21.7	20.8
LTE B41 PC2	3	22.7	22.7	18.7	21.7	21.7
LTE B71	1	25.4	25.4	24.2	22.8	22.8
NR_n2	3	24.0	24.0	20.8	21.9	22.8
NR_n5	1	27.6	27.6	24.5	22.8	22.8
NR_n25	3	23.3	23.3	20.3	21.9	22.8
NR_n66	3	24.2	24.2	20.8	23.7	22.8
NR_n71	1	27.6	27.6	25.8	22.8	22.8
NR_n41**	3	24.3	24.3	20.4	19.8	22.8

\*P<sub>max</sub> is used for RF tune up procedure. The maximum allowed output power is equal to P<sub>max</sub> + 1dB uncertainty.

\*\*All P<sub>limit</sub> power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & NR TDD).

The max allowed output power is the P<sub>limit</sub> + 1dB device uncertainty, and if P<sub>limit</sub> is higher than P<sub>max</sub>, the device output power will be P<sub>max</sub> instead.

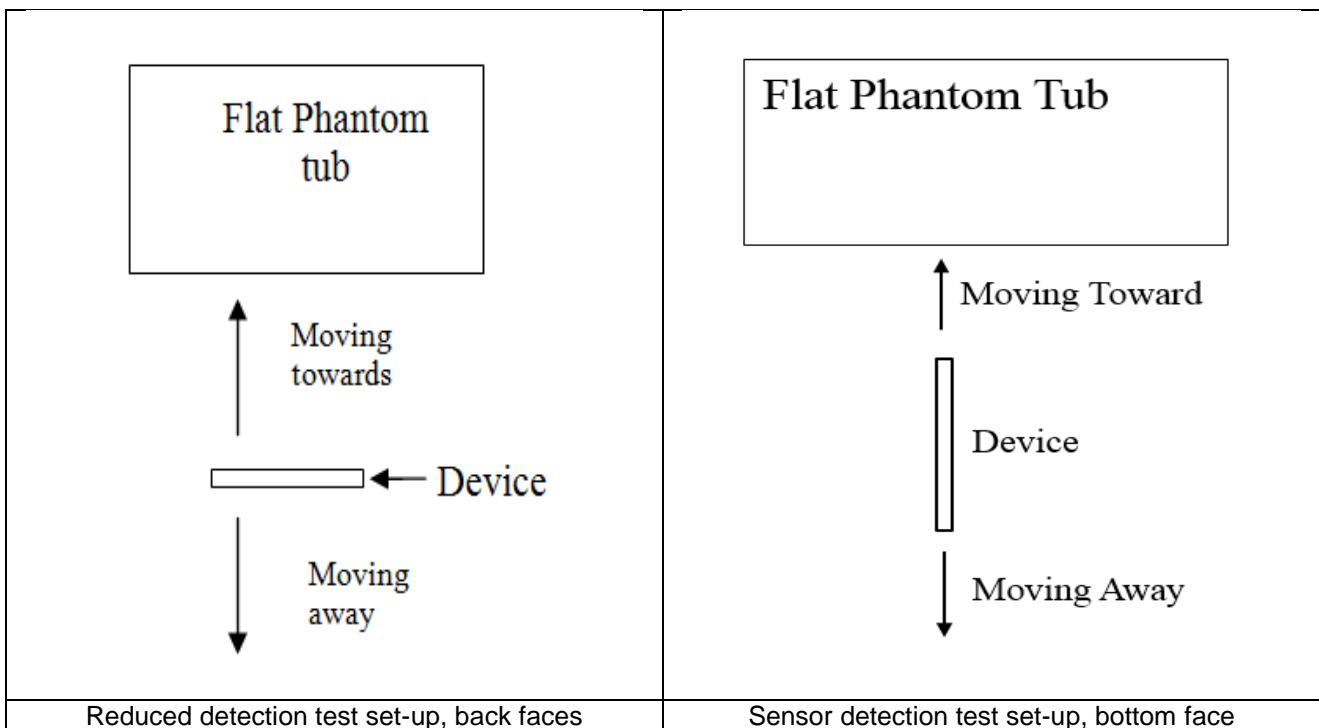
## 6. Proximity Reduced Triggering Test

### <Proximity Reduced Triggering Distance>:

1. Proximity Sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (2600MHz) and lowest (1750MHz) frequency was used for proximity Sensor triggering testing.
2. Capacitive proximity Sensor placed coincident with antenna elements at the top and bottom ends of the phone are utilized to determine when the device comes in proximity of the user's hand at the back / bottom of the device.
3. When the sensor is active, the device will reduce maximum output powers on the WCDMA B2/B4, CDMA BC1 and LTE B2 / B4 / B7 / B25 / B30 / B66, FR1 n2/n25/n41 transmitter.
4. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed for handheld:

Back: [7 mm](#)

Bottom side: [8 mm](#)



Proximity Sensor Trigger Distance (mm)				
Position	Back		Bottom Side	
Position	Moving towards	Moving away	Moving towards	Moving away
Minimum	8	8	9	9

**7. RF Exposure Limits**

**7.1 Uncontrolled Environment**

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

**7.2 Controlled Environment**

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

**Limits for Occupational/Controlled Exposure (W/kg)**

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

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

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

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



## **8. Specific Absorption Rate (SAR)**

### **8.1 Introduction**

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

### **8.2 SAR Definition**

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

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

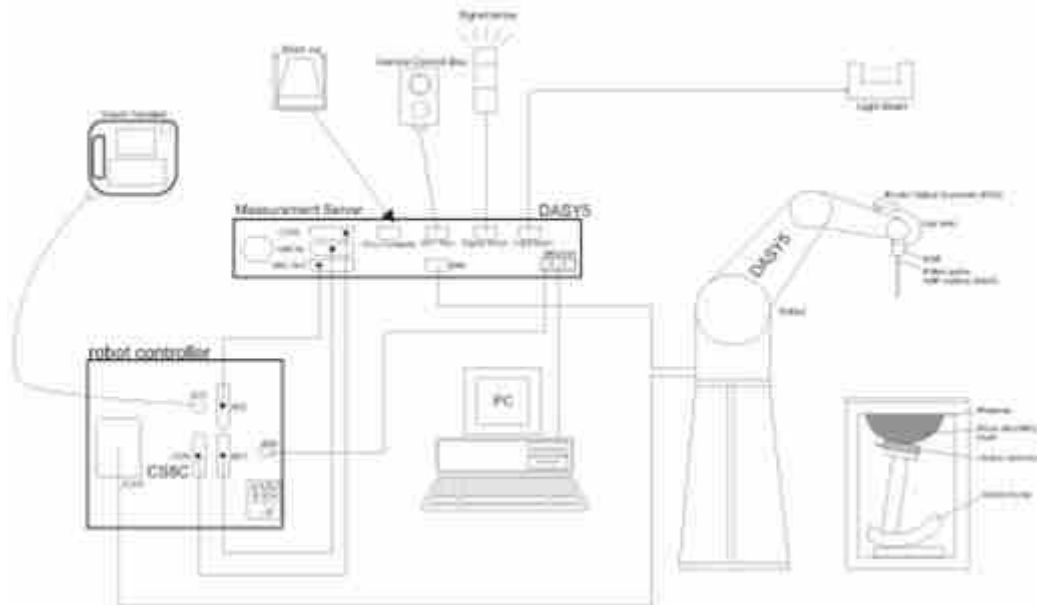
SAR is expressed in units of Watts per kilogram (W/kg)

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

Where:  $\sigma$  is the conductivity of the tissue,  $\rho$  is the mass density of the tissue and E is the RMS electrical field strength.

## 9. System Description and Setup

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



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

**9.1 E-Field Probe**

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

**<EX3DV4 Probe>**

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



**9.2 Data Acquisition Electronics (DAE)**

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


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



**Fig 5.1 Photo of DAE**


**9.3 Phantom**

**<SAM Twin Phantom>**

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

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

**<ELI Phantom>**

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

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

## 9.4 Device Holder

### <Mounting Device for Hand-Held Transmitter>

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



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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



Mounting Device for Laptops

## 10. Measurement Procedures

The measurement procedures are as follows:

### <Conducted power measurement>

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

### <SAR measurement>

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

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

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

### 10.1 Spatial Peak SAR Evaluation

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

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

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

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

**10.2 Power Reference Measurement**

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

**10.3 Area Scan**

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5 \text{ mm}$
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: $\Delta x_{Area}$ , $\Delta y_{Area}$	≤ 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.	

**10.4 Zoom Scan**

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

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

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

**10.5 Volume Scan Procedures**

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

**10.6 Power Drift Monitoring**

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





### 11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 06, 2018	Dec. 05, 2021
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 05, 2018	Dec. 04, 2021
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Jul. 30, 2018	Jul. 29, 2021
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 07, 2018	Dec. 06, 2021
SPEAG	2300MHz System Validation Kit	D2300V2	1056	Nov. 01, 2018	Oct. 31, 2021
SPEAG	2450MHz System Validation Kit	D2450V2	924	Apr. 15, 2019	Apr. 14, 2022
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 07, 2018	Dec. 06, 2021
SPEAG	3500MHz System Validation Kit	D3500V2	1076	Apr. 29, 2019	Apr. 28, 2022
SPEAG	3700MHz System Validation Kit	D3700V2	1037	Apr. 29, 2019	Apr. 28, 2022
SPEAG	5000MHz System Validation Kit	D5GHzV2	1167	Aug. 03, 2018	Aug. 02, 2021
SPEAG	Data Acquisition Electronics	DAE3	528	Mar. 16, 2020	Mar. 15, 2021
SPEAG	Data Acquisition Electronics	DAE4	1226	May. 15, 2020	May. 14, 2021
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	Apr. 30, 2020	Apr. 29, 2021
SPEAG	Dosimetric E-Field Probe	EX3DV4	7576	Jan. 22, 2020	Jan. 21, 2021
SPEAG	SAM Twin Phantom	SAM V5.0	1795	NCR	NCR
SPEAG	SAM Twin Phantom	QD000P40CC	TP-1500	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 27, 2019	Dec. 26, 2020
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 26, 2019	Dec. 25, 2020
Anritsu	Radio communication analyzer	MT8821C	6201588572	Dec. 26, 2019	Dec. 25, 2020
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 22, 2019	Jul. 21, 2020
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 21, 2020	Jul. 20, 2021
Agilent	Network Analyzer	E5071C	MY46523671	Oct. 17, 2019	Oct. 16, 2020
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Oct. 28, 2019	Oct. 27, 2020
Agilent	Signal Generator	N5181A	MY50145381	Dec. 26, 2019	Dec. 25, 2020
Anritsu	Power Sensor	MA2411B	1306099	Jul. 22, 2019	Jul. 21, 2020
Anritsu	Power Meter	ML2495A	1349001	Jul. 22, 2019	Jul. 21, 2020
Anritsu	Power Sensor	MA2411B	1306099	Jul. 21, 2020	Jul. 20, 2021
Anritsu	Power Meter	ML2495A	1349001	Jul. 21, 2020	Jul. 20, 2021
Anritsu	Power Sensor	MA2411B	1207253	Dec. 26, 2019	Dec. 25, 2020
Anritsu	Power Meter	ML2495A	1218010	Dec. 26, 2019	Dec. 25, 2020
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 26, 2019	Dec. 25, 2020
R&S	Spectrum Analyzer	FSP7	100818	Jul. 22, 2019	Jul. 21, 2020
R&S	Spectrum Analyzer	FSP7	100818	Jul. 21, 2020	Jul. 20, 2021
FLUKE	DIGUTAC THERMOMETER	51 II	97240029	Aug. 15, 2019	Aug. 14, 2020
Anymetre	Thermo-Hygrometer	JR593	2015102801	Dec. 30, 2019	Dec. 29, 2020
Anymetre	Thermo-Hygrometer	JR593	2018100802	Apr. 19, 2020	Apr. 18, 2021
AR	Amplifier	5S1G4	0333096	Note 1	
mini-circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
PASTERNAK	Dual Directional Coupler	PE2214-10	N/A	Note 1	
Agilent	Dual Directional Coupler	778D	50422	Note 1	
MCL	Attenuator 1	BW-S10W5	N/A	Note 1	
Weinschel	Attenuator 2	3M-20	N/A	Note 1	
Zhongjilianhe	Attenuator 3	MVE2214-03	N/A	Note 1	

**General Note:**

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

## **12. System Verification**

### **12.1 Tissue Simulating Liquids**

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



Fig 10.1 Photo of Liquid Height for Head SAR

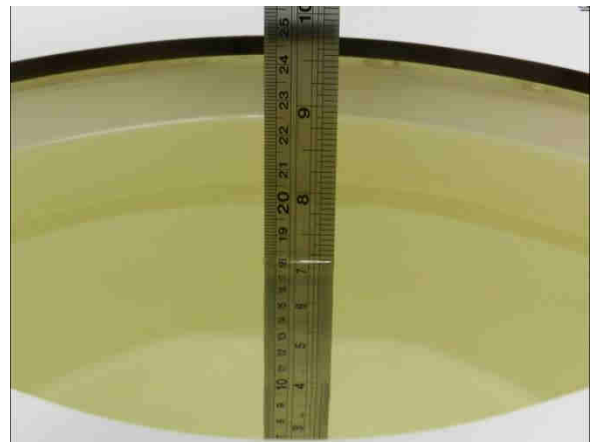


Fig 10.2 Photo of Liquid Height for Body SAR

## 12.2 Tissue Verification

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

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

### Simulating Liquid for 5GHz, Manufactured by SPEAG

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

### <Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Liquid Temp. (°C)	Conductivity ( $\sigma$ )	Permittivity ( $\epsilon_r$ )	Conductivity Target ( $\sigma$ )	Permittivity Target ( $\epsilon_r$ )	Delta ( $\sigma$ ) (%)	Delta ( $\epsilon_r$ ) (%)	Limit (%)	Date
750	22.3	0.883	40.810	0.89	41.90	-0.79	-2.60	±5	2020/7/13
750	22.4	0.894	41.019	0.89	41.90	0.45	-2.10	±5	2020/7/30
835	22.4	0.915	41.529	0.90	41.50	1.67	0.07	±5	2020/7/15
835	22.6	0.927	42.674	0.90	41.50	3.00	2.83	±5	2020/7/30
1750	22.6	1.395	40.742	1.37	40.10	1.82	1.60	±5	2020/7/25
1750	22.3	1.378	41.340	1.37	40.10	0.58	3.09	±5	2020/8/5
1750	22.5	1.355	38.395	1.37	40.10	-1.09	-4.25	±5	2020/7/2
1750	22.7	1.402	41.374	1.37	40.10	2.34	3.18	±5	2020/8/7
1900	22.5	1.450	40.004	1.40	40.00	3.57	0.01	±5	2020/7/25
1900	22.2	1.415	41.124	1.40	40.00	1.09	2.81	±5	2020/8/5
1900	22.4	1.406	39.291	1.40	40.00	0.43	-1.77	±5	2020/7/5
1900	22.7	1.422	41.138	1.40	40.00	1.57	2.85	±5	2020/8/5
2300	22.4	1.687	38.801	1.67	39.50	1.02	-1.77	±5	2020/7/8
2300	22.4	1.678	38.250	1.67	39.50	0.48	-3.16	±5	2020/8/3
2450	22.5	1.865	37.492	1.80	39.20	3.61	-4.36	±5	2020/7/13
2450	22.4	1.820	39.753	1.80	39.20	1.11	1.41	±5	2020/7/29
2600	22.6	2.050	38.344	1.96	39.00	4.59	-1.68	±5	2020/7/10
2600	22.5	1.981	38.254	1.96	39.00	1.07	-1.91	±5	2020/7/31
3500	22.5	2.905	39.577	2.91	37.90	-0.17	4.42	±5	2020/8/1
3700	22.3	3.063	39.332	3.12	37.70	-1.83	4.33	±5	2020/8/1
5250	22.6	4.597	36.241	4.71	35.95	-2.40	0.81	±5	2020/7/15
5250	22.6	4.767	36.980	4.71	35.95	1.21	2.87	±5	2020/7/21
5600	22.6	4.945	35.840	5.07	35.50	-2.47	0.96	±5	2020/7/17
5600	22.7	5.211	36.228	5.07	35.50	2.78	2.05	±5	2020/7/24
5750	22.7	5.014	36.603	5.22	35.35	-3.95	3.54	±5	2020/7/19
5750	22.5	5.385	35.954	5.22	35.35	3.16	1.71	±5	2020/7/27



12.3 System Performance Check Results

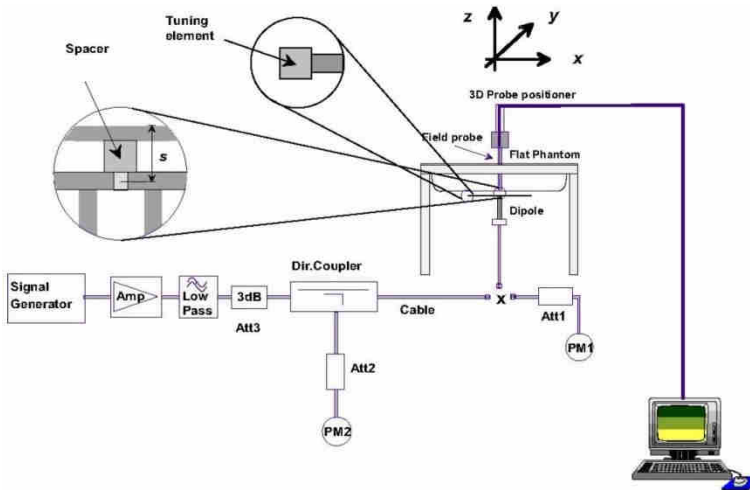
Comparing to the original SAR value provided by SPEAG, the verification data should be within its specification of 10 %. Below table shows the target SAR and measured SAR after normalized to 1W input power. The table below indicates the system performance check can meet the variation criterion and the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

<1g SAR>

Table with 10 columns: Date, Frequency (MHz), Input Power (mW), Dipole S/N, Probe S/N, DAE S/N, Measured 1g SAR (W/kg), Targeted 1g SAR (W/kg), Normalized 1g SAR (W/kg), Deviation (%). It contains 30 rows of test data.

**<10g SAR>**

Date	Frequency (MHz)	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2020/7/13	750	250	1099	3819	528	1.49	5.64	5.96	5.67
2020/7/30	750	250	1099	3819	1226	1.55	5.64	6.2	9.93
2020/7/15	835	250	4d162	3819	528	1.55	6.35	6.2	-2.36
2020/7/30	835	250	4d162	3819	1226	1.69	6.35	6.76	6.46
2020/7/25	1750	250	1137	3819	1226	5.26	19.50	21.04	7.90
2020/8/5	1750	250	1137	3819	1226	4.85	19.50	19.4	-0.51
2020/7/2	1750	250	1137	7576	528	4.79	19.50	19.16	-1.74
2020/8/7	1750	250	1137	7576	528	4.86	19.50	19.44	-0.31
2020/7/25	1900	250	5d182	3819	1226	5.23	20.70	20.92	1.06
2020/8/5	1900	250	5d182	3819	1226	4.83	20.70	19.32	-6.67
2020/7/5	1900	250	5d182	7576	528	5.22	20.70	20.88	0.87
2020/8/5	1900	250	5d182	7576	528	4.85	20.70	19.4	-6.28
2020/7/8	2300	250	1056	7576	528	5.59	23.80	22.36	-6.05
2020/8/3	2300	250	1056	7576	528	5.56	23.80	22.24	-6.55
2020/7/13	2450	250	924	7576	528	5.67	23.90	22.68	-5.10
2020/7/29	2450	250	924	7576	528	5.54	23.90	22.16	-7.28
2020/7/10	2600	250	1070	7576	528	6.21	26.10	24.84	-4.83
2020/7/31	2600	250	1070	7576	528	6.01	26.10	24.04	-7.89
2020/7/15	5250	100	1167	7576	528	2.27	22.00	22.7	3.18
2020/7/21	5250	100	1167	7576	528	2.35	22.00	23.5	6.82
2020/7/17	5600	100	1167	7576	528	2.28	23.20	22.8	-1.72
2020/7/24	5600	100	1167	7576	528	2.40	23.20	24	3.45
2020/7/19	5750	100	1167	7576	528	2.21	21.60	22.1	2.31
2020/7/27	5750	100	1167	7576	528	2.37	21.60	23.7	9.72



**Fig 8.3.1 System Performance Check Setup**



**Fig 8.3.2 Setup Photo**

### 13. RF Exposure Positions

#### 13.1 Ear and handset reference point

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

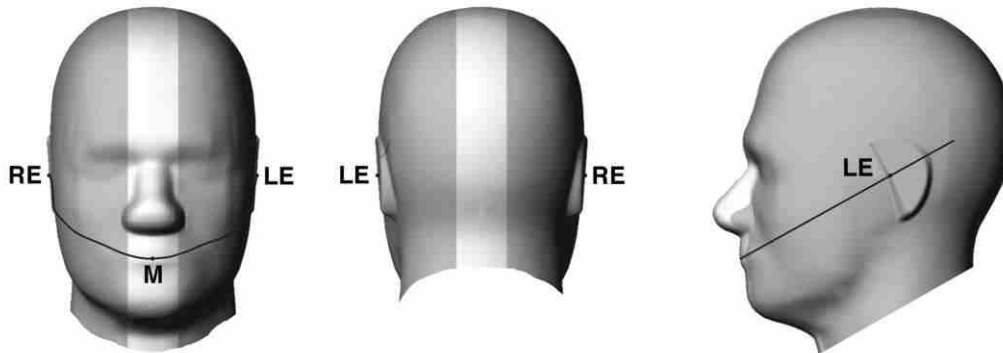


Fig 9.1.1 Front, back, and side views of SAM twin phantom

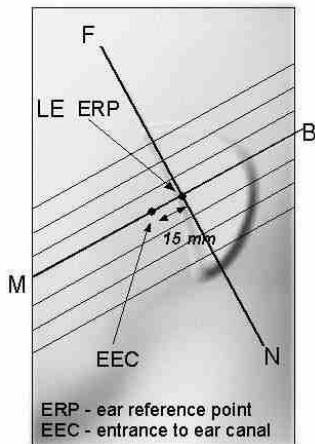


Fig 9.1.2 Close-up side view of phantom showing the ear region.

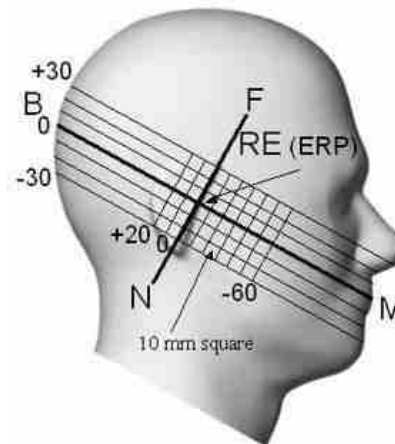
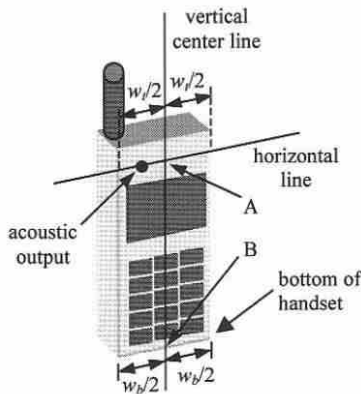


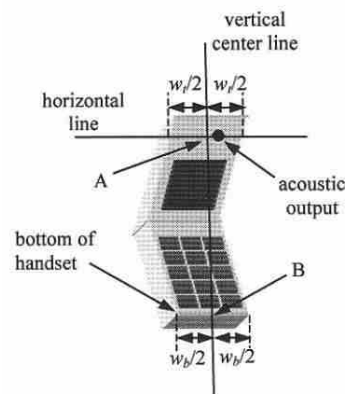
Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

**13.2 Definition of the cheek position**

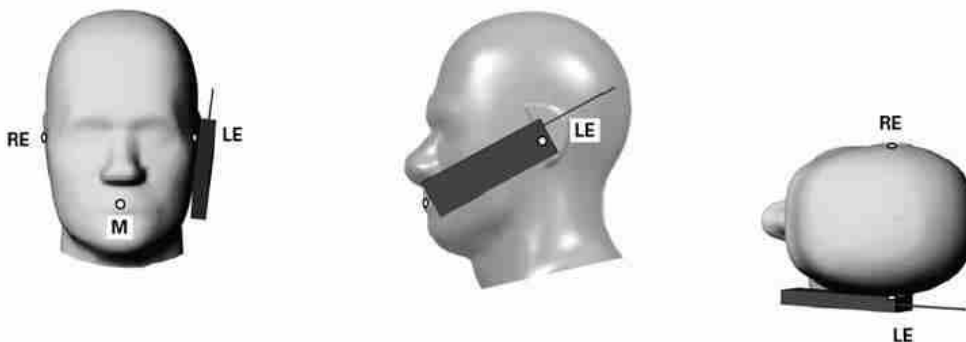
1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal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



**Fig 9.2.1 Handset vertical and horizontal reference lines—“fixed case”**



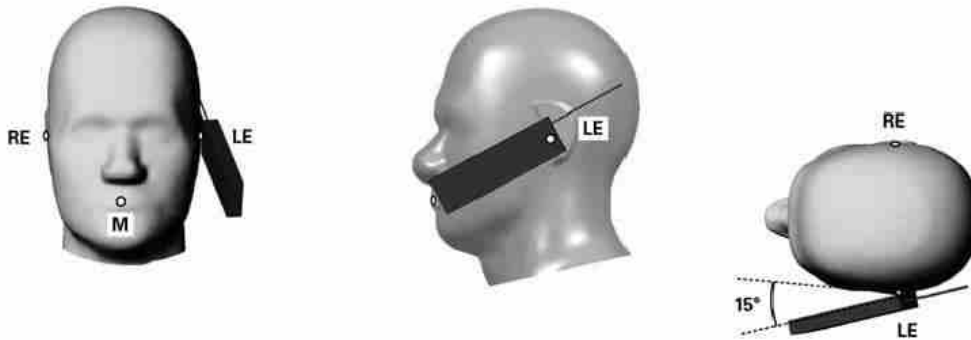
**Fig 9.2.2 Handset vertical and horizontal reference lines—“clam-shell case”**



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

**13.3 Definition of the tilt position**

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

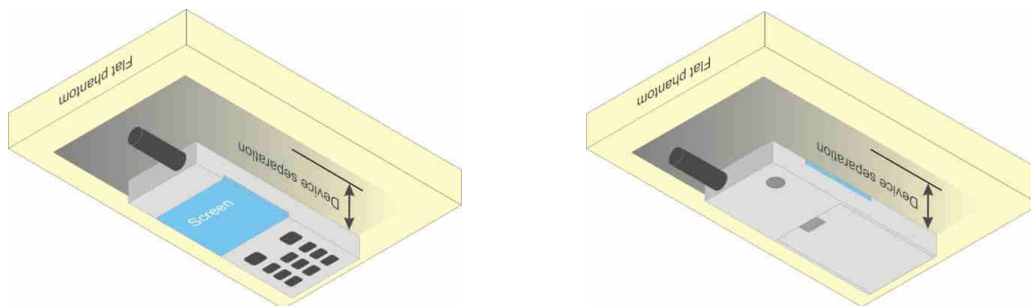


**Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.**

**13.4 Body Worn Accessory**

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 9.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is > 1.2 W/kg, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.

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



**Fig 9.4 Body Worn Position**





### **13.5 Product Specific Exposure**

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm 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, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.
2. The UMPC mini-tablet procedures must also be applied to test the SAR of all surfaces and edges with an antenna located at  $\leq 25$  mm from that surface or edge, in direct contact with a flat phantom, for 10-g extremity SAR according to the body-equivalent tissue dielectric parameters in KDB 865664 to address interactive hand use exposure conditions.6 The UMPC mini-tablet 1-g SAR at 5 mm is not required. When hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg.

### **13.6 Wireless Router**

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W  $\geq 9$  cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

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



## **14. GSM/UMTS/CDMA/LTE Output Power (Unit: dBm)**

The detailed conducted power table can refer to Appendix E.

### **<GSM Conducted Power>**

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (3Tx slots) for GSM850/GSM1900 is considered as the primary mode.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is  $\leq \frac{1}{4}$  dB higher than the primary mode, SAR measurement is not required for the secondary mode.

### **<WCDMA Conducted Power>**

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For HSPA+ devices supporting 16 QAM in the uplink, power measurements procedure is according to the configurations in Table C.11.1.4 of 3GPP TS 34.121-1.
4. For DC-HSDPA, the device was configured according to the H-Set 12, Fixed Reference Channel (FRC) configuration in Table C.8.1.12 of 3GPP TS 34.121-1, with the primary and the secondary serving HS-DSCH Cell enabled during the power measurement.

A summary of these settings are illustrated below:

### **HSDPA Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
  - i. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each
  - ii. Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
  - iii. Set RMC 12.2Kbps + HSDPA mode.
  - iv. Set Cell Power = -86 dBm
  - v. Set HS-DSCH Configuration Type to FRC (H-set 1, QPSK)
  - vi. Select HSDPA Uplink Parameters
  - vii. Set Delta ACK, Delta NACK and Delta CQI = 8
  - viii. Set Ack-Nack Repetition Factor to 3
  - ix. Set CQI Feedback Cycle (k) to 4 ms
  - x. Set CQI Repetition Factor to 2
  - xi. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

**Table C.10.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH**

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{HS}$ (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

Note 1:  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ .

Note 2: For the HS-DPCCH power mask requirement test in clause 5.2C, 5.7A, and the Error Vector Magnitude (EVM) with HS-DPCCH test in clause 5.13.1A, and HSDPA EVM with phase discontinuity in clause 5.13.1AA,  $\Delta_{ACK}$  and  $\Delta_{NACK} = 30/15$  with  $\beta_{HS} = 30/15 * \beta_c$ , and  $\Delta_{CQI} = 24/15$  with  $\beta_{HS} = 24/15 * \beta_c$ .

Note 3: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{HS}/\beta_c = 24/15$ . For all other combinations of DPDCH, DPCCH and HS-DPCCH the MPR is based on the relative CM difference. This is applicable for only UEs that support HSDPA in release 6 and later releases.

Note 4: For subtest 2 the  $\beta_c/\beta_d$  ratio of 12/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 11/15$  and  $\beta_d = 15/15$ .

**Setup Configuration**

**HSUPA Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting \* :
  - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
  - ii. Set the Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
  - iii. Set Cell Power = -86 dBm
  - iv. Set Channel Type = 12.2k + HSPA
  - v. Set UE Target Power
  - vi. Power Ctrl Mode= Alternating bits
  - vii. Set and observe the E-TFCl
  - viii. Confirm that E-TFCl is equal to the target E-TFCl of 75 for sub-test 1, and other subtest's E-TFCl
- d. The transmitted maximum output power was recorded.

**Table C.11.1.3:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH**

Sub-test	$\beta_c$	$\beta_d$	$\beta_d$ (SF)	$\beta_c/\beta_d$	$\beta_{ES}$ (Note 1)	$\beta_{EC}$	$\beta_{ED}$ (Note 4) (Note 5)	$\beta_{ED}$ (SF)	$\beta_{ED}$ (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCl
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	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	$\beta_{ED1}$ : 47/15 $\beta_{ED2}$ : 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	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{MS} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CQI} = 5/15$  with  $\beta_{MS} = 5/15 * \beta_c$ .

Note 2: CM = 1 for  $\beta_c/\beta_d = 12/15$ ,  $\beta_{MS}/\beta_c = 24/15$ . 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  $\beta_c/\beta_d$  ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to  $\beta_c = 10/15$  and  $\beta_d = 15/15$ .

Note 4: In case of testing by UE using E-DPDCH Physical Layer category 1, Sub-test 3 is omitted according to TS25.306 Table 5.1g.

Note 5:  $\beta_{ED}$  can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

**Setup Configuration**

**DC-HSDPA 3GPP release 8 Setup Configuration:**

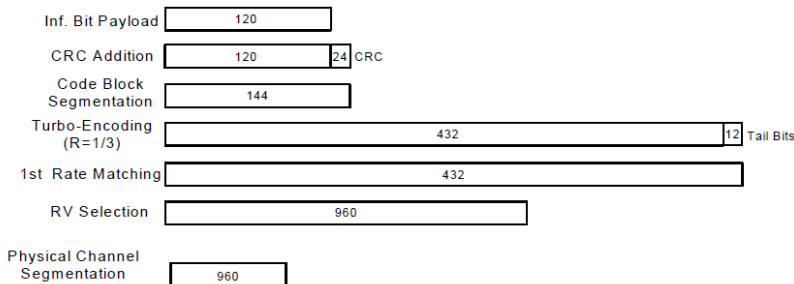
- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
  - i. Set RMC 12.2Kbps + HSDPA mode.
  - ii. Set Cell Power = -25 dBm
  - iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
  - iv. Select HSDPA Uplink Parameters
  - v. Set Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
    - a). Subtest 1:  $\beta_c/\beta_d=2/15$
    - b). Subtest 2:  $\beta_c/\beta_d=12/15$
    - c). Subtest 3:  $\beta_c/\beta_d=15/8$
    - d). Subtest 4:  $\beta_c/\beta_d=15/4$
  - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
  - vii. Set Ack-Nack Repetition Factor to 3
  - viii. Set CQI Feedback Cycle (k) to 4 ms
  - ix. Set CQI Repetition Factor to 2
  - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification. A summary of these settings are illustrated below:

**C.8.1.12 Fixed Reference Channel Definition H-Set 12**

**Table C.8.1.12: Fixed Reference Channel H-Set 12**

Parameter	Unit	Value
Nominal Avg. Inf. Bit Rate	kbps	60
Inter-TTI Distance	TTI's	1
Number of HARQ Processes	Processes	6
Information Bit Payload ( $N_{INF}$ )	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		



**Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)**

**Setup Configuration**

**HSPA+ 3GPP release 7 (uplink category 7) 16QAM, Setup Configuration:**

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting \* :
  - i. Call Configs = 5.2E:HSPA+:UL with 16QAM
  - ii. Set the Gain Factors ( $\beta_c$  and  $\beta_d$ ) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.4, quoted from the TS 34.121-1 s5.2E
  - iii. Set Channel Parmes
  - iv. Set Cell Power = -86 dBm
  - v. Set Channel Type = HSPA
  - vi. Set UE Target Power =21 dBm
  - vii. Power Ctrl Mode= All Up Bits
  - viii. Set Manual Uplink DPCH Bc/Bd = Manual
  - ix. Set Manual Uplink DPCH Bc and Bd=15,15(for 34.121-1 v8.10.0 table C11.1.4 sub-test 1)
  - x. Set HSPA Conn DL Channel Levels
  - xi. Set HS-SCCH Configs
  - xii. Set RB Test Mode Setup
  - xiii. Set Common HSUPA Parameters
  - xiv. Set Serving Grant
  - xv. Confirm that E-TFCI is equal to the target E-TFCI of 105 for sub-test 1, and other subtest's E-TFCI
- d. The transmitted maximum output power was recorded.

**Table C.11.1.4:  $\beta$  values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM**

Sub-test	$\beta_c$ (Note 3)	$\beta_d$	$\beta_{HS}$ (Note 1)	$\beta_{ec}$	$\beta_{ed}$ (2xSF2) (Note 4)	$\beta_{ed}$ (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	$\beta_{ed1}$ : 30/15 $\beta_{ed2}$ : 30/15	$\beta_{ed3}$ : 24/15 $\beta_{ed4}$ : 24/15	3.5	2.5	14	105	105

Note 1:  $\Delta_{ACK}, \Delta_{NACK}$  and  $\Delta_{CQI} = 30/15$  with  $\beta_{fs} = 30/15 * \beta_c$ .

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the  $\beta_c$  is set to 1 and  $\beta_d = 0$  by default.

Note 4:  $\beta_{ed}$  can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

**Setup Configuration**



**<WCDMA Conducted Power>**

**General Note:**

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

**<CDMA2000 Conducted Power>**

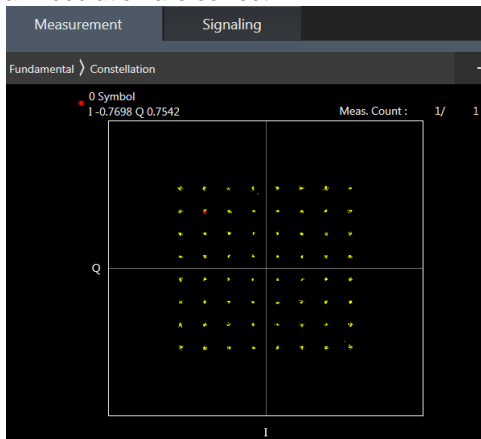
**General Note:**

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

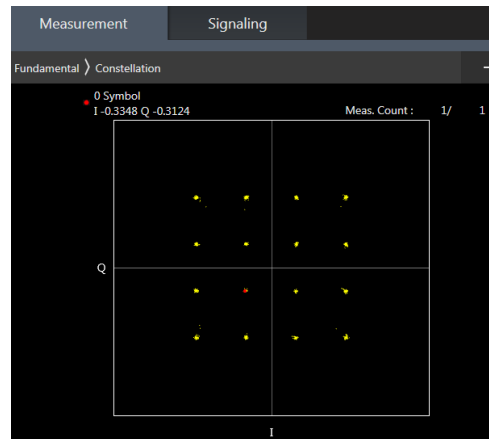
**<LTE Conducted Power>**

**General Note:**

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  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.
6. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE band 2/4/17/38 SAR test was covered by Band 25/66/12/41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. the maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion
  - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 2017 TCB workshop, for 64 QAM and 16 QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



**64QAM**



**16QAM**

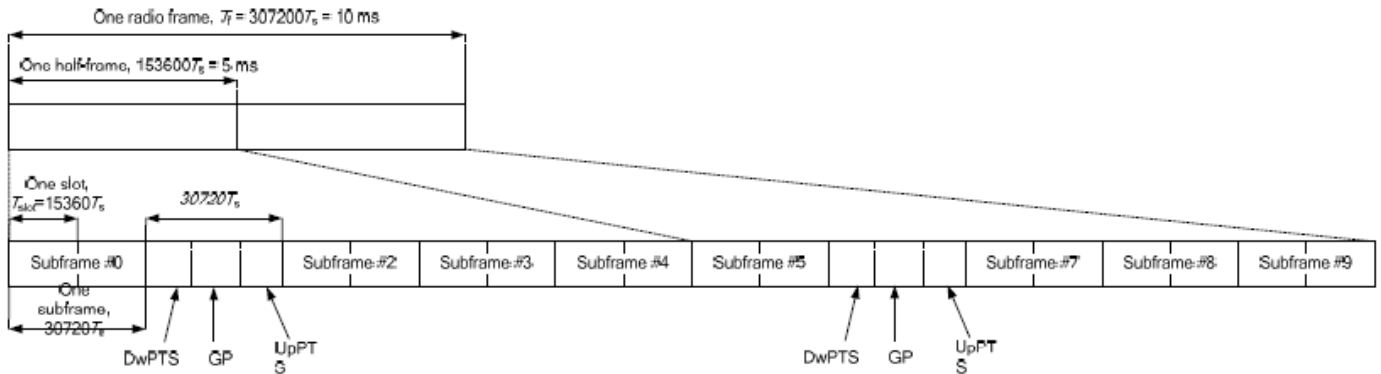


**<TDD LTE SAR Measurement>**

TDD LTE configuration setup for SAR measurement

SAR was tested with a fixed periodic duty factor according to the highest transmission duty factor implemented for the device and supported by 3GPP.

- a. 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- b. "special subframe S" contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- c. Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.



**Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).**

**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

**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 · Ts	2192 · Ts	2560 · Ts	7680 · Ts	2192 · Ts	2560 · Ts		
1	19760 · Ts			20480 · Ts				
2	21952 · Ts			23040 · Ts				
3	24144 · Ts			25600 · Ts				
4	26336 · Ts			7680 · Ts				
5	6592 · Ts	4384 · Ts	5120 · Ts	20480 · Ts	4384 · Ts	5120 · Ts		
6	19760 · Ts			23040 · Ts				
7	21952 · Ts			12800 · Ts				
8	24144 · Ts			-			-	-
9	13168 · Ts			-			-	-

Special subframe (30720·T <sub>s</sub> ): Normal cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~4	7.13%	8.33%
	5~9	14.3%	16.7%

Special subframe(30720·T <sub>s</sub> ): Extended cyclic prefix in downlink (UpPTS)			
	Special subframe configuration	Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
Uplink duty factor in one special subframe	0~3	7.13%	8.33%
	4~7	14.3%	16.7%

The highest duty factor is resulted from:

For LTE Band 41 Power class 2

- i. Uplink-downlink configuration: 1. In a half-frame consisted of 5 subframes, uplink operation is in 2 uplink subframes and 1 special subframe.
- ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(2+0.167)/5 = 43.3\%$
- iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(2+0.143)/5 = 42.9\%$
- v. For TDD LTE SAR measurement, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $43.3\%/42.9\% = 1.009$  is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.

For LTE Band 41 Power class 3

- i. Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- ii. special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- iii. for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.167)/5 = 63.3\%$
- iv. for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:  $(3+0.143)/5 = 62.9\%$
- v. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix  $63.3\%/62.9\% = 1.006$  is applied to scale-up the measured SAR result. The scaled TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.

The device can adjust uplink/downlink configuration automatically according to the transmitting power class level, as followings:

LTE TDD Band	Power Class level	support uplink/downlink configuration
LTE Band 41	> 23	1,2,3,4,5
	=23	0,1,2,3,4,5,6
	< 23	0,1,2,3,4,5,6



**<LTE Carrier Aggregation combinations>**

**General Note:**

1. This device supports Carrier Aggregation on downlink for inter and intra band and uplink CA. For the device supports combination bands and configurations are according to 3GPP.
2. In applying the existing power measurement procedure of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of the frequency band and CCs in each row need consideration, and that configurations require power measurement should be highlighted in the below table.
3. All permutations exist. No restrictions on Pcell & Scell combinations. Only LTE Band 29A/46A is limited to Scell.

2CC Downlink Carrier Aggregation					3CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_2A-2A	2A,2A-2A		3CC-1	1	CA_2A-2A-4A	2A,4A,2A-2A,2A-4A,2A-2A-4A		44C-1
2	CA_2A-4A	2A,4A,2A-4A		3CC-1	2	CA_2A-2A-5A	2A,2A-2A		44C-3
3	CA_2A-5A	2A		3CC-2	3	CA_2A-2A-12A	2A, 2A-2A		44C-4
4	CA_2A-7A	2A		3CC-9	4	CA_2A-2A-13A	2A,2A-2A		44C-5
5	CA_2A-12A	2A		3CC-3	5	CA_2A-2A-66A	2A,66A, 2A-2A,2A-66A,2A-2A-66A		44C-4
6	CA_2A-13A	2A		3CC-4	6	CA_2A-2A-71A	2A, 2A-2A		44C-7
7	CA_2A-29A	2A	B29 SCC Only	3CC-12	7	CA_2A-4A-4A	2A,4A,2A-4A,4A-4A,2A-4A-4A		
8	CA_2A-30A	2A		3CC-14	8	CA_2A-4A-5A	2A,4A,2A-4A		
9	CA_2A-46A	2A	B46 SCC Only	3CC-21	9	CA_2A-4A-7A	2A,4A,		
10	CA_2A-48A	2A		3CC-22	10	CA_2A-4A-12A	2A,4A,2A-4A		44C-1
11	CA_2A-66A	2A,66A,2A-66A		3CC-23	11	CA_2A-4A-13A	2A,4A,2A-4A		
12	CA_2A-71A	2A		3CC-13	12	CA_2A-4A-29A	2A,4A,2A-4A	B29 SCC Only	
13	CA_2C	2C,2A		3CC-30	13	CA_2A-4A-71A	2A,4A,2A-4A		44C-2
14	CA_4A-4A	4A,4A-4A		3CC-32	14	CA_2A-5A-30A	2A		
15	CA_4A-5A	4A		3CC-32	15	CA_2A-5A-66A	2A,66A,2A-66A		4CC-8
16	CA_4A-7A	4A		3CC-33	16	CA_2A-7A-7A	2A,		
17	CA_4A-12A	4A		3CC-34	17	CA_2A-12A-30A	2A		
18	CA_4A-13A	4A		3CC-35	18	CA_2A-12A-66A	2A,66A,2A-66A		44C-4
19	CA_4A-29A	4A	B29 SCC Only	3CC-41	19	CA_2A-13A-66A	2A,66A,2A-66A		44C-5
20	CA_4A-30A	4A		3CC-41	20	CA_2A-29A-30A	2A	B29 SCC Only	
21	CA_4A-46A	4A	B46 SCC Only	3CC-42	21	CA_2A-46A-46A	2A	B46 SCC Only	
22	CA_4A-71A	4A		3CC-36	22	CA_2A-46A-48A	2A, 48A, 2A-48A	B46 SCC Only	
23	CA_5A-5A				23	CA_2A-46A-66A	2A,66A,2A-66A	B46 SCC Only	
24	CA_5A-7A				24	CA_2A-48A-48A	2A,48A,2A-48A,48A-48A,2A-48A-48A		
25	CA_5A-30A			3CC-44	25	CA_2A-48A-66A	2A,48A,66A,2A-48A,2A-66A,48A-66A,2A-48A-66A		
26	CA_5A-48A	48A			26	CA_2A-66A-66A	2A,66A,2A-66A,66A-66A,2A-66A-66A		44C-12
27	CA_5A-66A	66A		3CC-45	27	CA_2A-66A-71A	2A,66A,2A-66A		44C-7
28	CA_5B				28	CA_2A-46C	2A	B46 SCC Only	44C-13
29	CA_7A-7A			3CC-16	29	CA_2A-48C	2A,48C,2A-48C		
30	CA_7A-12A			3CC-39	30	CA_2A-66C	2A,66C,2A-66C		44C-24
31	CA_7A-46A		B46 SCC Only		31	CA_2C-66A	2C,66A,2C-66A		44C-26
32	CA_7C				32	CA_4A-4A-5A	4A,4A-4A		
33	CA_12A-30A			3CC-48	33	CA_4A-4A-7A	4A,		
34	CA_12A-66A	66A		3CC-49	34	CA_4A-4A-12A	4A,4A-4A		
35	CA_13A-66A	66A		3CC-51	35	CA_4A-4A-13A	4A,4A-4A		
36	CA_25A-25A	25A,25A-25A		3CC-53	36	CA_4A-4A-71A	4A,4A-4A		
37	CA_25A-26A	25A		3CC-53	37	CA_4A-5A-30A	4A		
38	CA_25A-41A	25A,41A,25A-41A			38	CA_4A-7A-7A	4A		
39	CA_25A-46A	25A	B46 SCC Only		39	CA_4A-7A-12A	4A		
40	CA_26A-41A	41A			40	CA_4A-12A-30A	4A		
41	CA_30A-29A		B29 SCC Only	3CC-41	41	CA_4A-29A-30A	4A	B29 SCC Only	
42	CA_30A-66A	66A		3CC-48	42	CA_4A-46A-46A	4A	B46 SCC Only	
43	CA_38C				43	CA_4A-46C	4A	B46 SCC Only	SCC-27
44	CA_41A-41A	41A,41A-41A			44	CA_5A-30A-66A	66A		



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45	CA_41C	41C,41A		3CC-56	45	CA_5A-66A-66A	66A,66A-66A		
46	CA_48A-48A	48A,48A-48A		3CC-60	46	CA_5A-66C	66C		
47	CA_48A-66A	66A,48A,48A-66A		3CC-60	47	CA_7A-46C		B46 SCC Only	
48	CA_48C	48C,48A		3CC-62	48	CA_12A-30A-66A	66A		
49	CA_66A-46A	66A	B46 SCC Only	3CC-64	49	CA_12A-66A-66A	66A,66A-66A		
50	CA_66A-66A	66A,66A-66A		3CC-65	50	CA_12A-66C	66C,66A		
51	CA_66A-71A	66A		3CC-65	51	CA_13A-66A-66A	66A,66A-66A		
52	CA_66B	66B		4CC-15	52	CA_13A-66C	66C,66A		
53	CA_66C	66C,66A		3CC-67	53	CA_25A-25A-26A	25A,25A-25A		
					54	CA_25A-41C	25A,41C,25A-41C		
					55	CA_25A-46C	25A	B46 SCC Only	
					56	CA_41A-41C	41A,41C,41A-41C		
					57	CA_41D	41D,41A,41C		4CC-31
					58	CA_46A-48A-66A	48A, 66A, 48A-66A	B46 SCC Only	
					59	CA_46C-66A	66A	B46 SCC Only	4CC-36
					60	CA_48A-48A-66A	48A, 66A, 48A-66A, 48A-48A-66A		
					61	CA_48A-48C	48A,48C,48C-48A		
					62	CA_48C-66A	B48C,B66A,B48C-66A,48A,48A-66A		4CC-35
					63	CA_48D	48D		4CC-39
					64	CA_66A-46A-46A	66A	B46 SCC Only	
					65	CA_66A-66A-71A	66A,66A-66A		4CC-12
					66	CA_66A-66C	66A,66C,66A-66C,66A-66A		
					67	CA_66C-71A	66C		4CC-24

4CC Downlink Carrier Aggregation					5CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_2A-2A-4A-12A	2A, 4A, 2A-2A, 2A-4A,2A-2A-4A			1	CA_2A-46A-46C-66A	2A,66A,2A-66A	B46 SCC Only	
2	CA_2A-2A-4A-71A	2A, 4A, 2A-2A, 2A-4A, 2A-2A-4A			2	CA_2A-2A-46D	2A,2A-2A	B46 SCC Only	
3	CA_2A-2A-5A-66A	2A,66A,2A-2A,2A-66A,2A-2A-66A			3	CA_2A-46A-46D	2A	B46 SCC Only	
4	CA_2A-2A-12A-66A	2A,66A,2A-2A,2A-66A,2A-2A-66A			4	CA_2A-46A-48D	2A, 48D, 2A-48D	B46 SCC Only	
5	CA_2A-2A-13A-66A	2A,66A,2A-2A,2A-66A,2A-2A-66A			5	CA_2A-46C-48C	2A,48C,2A-48C	B46 SCC Only	
6	CA_2A-2A-66A-66A	2A,66A,2A-2A,2A-66A,2A-2A-66A,2A-66A-66A			6	CA_2A-46D-48A	2A, 48A, 2A-48A	B46 SCC Only	
7	CA_2A-2A-66A-71A	2A,66A,2A-2A,2A-66A,2A-2A-66A			7	CA_2A-46D-66A	2A,66A,2A-66A	B46 SCC Only	
8	CA_2A-5A-66A-66A	2A,66A,2A-66A,66A-66A,2A-66A-66A			8	CA_2A-46E	2A	B46 SCC Only	
9	CA_2A-12A-66A-66A	2A,66A,2A-66A,66A-66A,2A-66A-66A			9	CA_4A-46A-46D	4A	B46 SCC Only	
10	CA_2A-13A-66A-66A	2A,66A,2A-66A,66A-66A,2A-66A-66A			10	CA_41C-41D	41C,41D,41C-41D		
11	CA_2A-46A-46A-66A	2A,66A,2A-66A	B46 SCC Only		11	CA_46A-46D-66A	66A	B46 SCC Only	
12	CA_2A-66A-66A-71A	2A,66A,2A-66A,66A-66A,2A-66A-66A			12	CA_46A-48D-66A	48D, 66A, 48D-66A	B46 SCC Only	
13	CA_2A-2A-46C	2A,2A-2A	B46 SCC Only		13	CA_46C-48C-66A	48C,66A,48C-66A	B46 SCC Only	
14	CA_2A-2A-66C	2A, 66C, 2A-2A, 2A-66C, 2A-2A-66C			14	CA_46D-48A-66A	48A, 66A, 48A-66A	B46 SCC Only	
15	CA_2A-5A-66B	2A,66B,2A-66B			15	CA_46C-48D	48D	B46 SCC Only	
16	CA_2A-5A-66C	2A,66C,2A-66C			16	CA_46D-48C	48C	B46 SCC Only	
17	CA_2A-12A-66C	2A,66C,2A-66C			17	CA_46E-66A	66A	B46 SCC Only	
18	CA_2A-13A-66B	2A,66B,2A-66B			18	CA_48E-66A	48E,66A,48E-66A	B46 SCC Only	
19	CA_2A-13A-66C	2A,66C,2A-66C							
20	CA_2A-46A-46C	2A	B46 SCC Only						
21	CA_2A-46C-48A	2A, 48A, 2A-48A	B46 SCC Only						
22	CA_2A-46A-48C	2A, 48C, 2A-48C	B46 SCC Only						
23	CA_2A-46C-66A	2A,66A,2A-66A	B46 SCC Only						
24	CA_2A-66C-71A	2A,66C,2A-66C							
25	CA_2A-46D	2A	B46 SCC Only	5CC-2					
26	CA_2C-66A-66A	2C,66A,2C-66A,2C-66A-66A							
27	CA_4A-46A-46C	4A	B46 SCC Only						
28	CA_4A-46D	4A	B46 SCC Only	5CC-9					
29	CA_25A-41D	25A							



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30	CA_25A-46D	25A	B46 SCC Only						
31	CA_41A-41D	41A,41A-41D							
32	CA_41C-41C	41C,41C-41C							
33	CA_41E	41E							
34	CA_46A-46C-66A	66A	B46 SCC Only						
35	CA_46A-48C-66A	48C, 66A, 48C-66A	B46 SCC Only						
36	CA_46C-48A-66A	48A, 66A, 48A-66A	B46 SCC Only						
37	CA_46D-48A	48A	B46 SCC Only	5CC-6					
38	CA_46D-66A	66A	B46 SCC Only	5CC-7					
39	CA_48D-66A	66A,48D ,48D-66A		5CC-12					
40	CA_48E	48E		5CC-18					



<LTE Downlink Carrier Aggregation>

General Note:

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

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

**<LTE Uplink carrier aggregation>**

2CC Uplink Carrier Aggregation	
Number	Combination
1	41C
2	48C
3	66C

**<Intra-band>**

**General Note:**

- i. The device supports intra-band uplink carrier aggregation for LTE B66/B41/B48 with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- ii. According TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers. For 48C, the measured power is extremity low compared to standalone LTE power, so 48C SAR verified is not required.
- iii. Additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

**<Inter-band uplink carrier aggregation consideration>**

2CC Uplink Carrier Aggregation	
Number	Combination
1	2A-4A
2	2A-12A
3	2A-13A
4	2A-66A
5	4A-12A
6	4A-13A
7	12A-66A
8	13A-66A

**General Note:**

- 1. According to October 2018 TCB workshop, uplink CA SAR test guidance as follows:
  - a. Provide the single uplink SAR values you have obtained for the relevant SAR configuration and frequency bands that employ inter-band uplink carrier aggregation.
  - b. If the single uplink 1g SAR values for each band are both less than 0.8W/kg and the algebraic summation of the 1g SAR values are less than 1.45W/kg, no additional measurements need to be performed.
  - c. If one on the single uplink 1g SAR values is greater than 0.8W/kg, instead of algebraically summing the 1g SAR values, sum up the SAR distributions, similar to the enlarged zoom scan (volume scan) procedures found in FCC KDB publication 865664 D01 SAR measurement 100MHz to 6GHz V01r04
  - d. If the algebraic sum of the 1g SAR values is > 1.45W/kg, additional measurements may have to be made. Submit a KDB inquiry for additional guidance.
- 2. Test positions and test channels used for the testing below are based on the standalone SAR result. When the UL CA active reduced by 3dB for each frequency bands, therefore power and SAR was estimated based on standalone results to performed sim-Tx analysis with WiFi and Bluetooth.
- 3. The single uplink 1g SAR values for each band are both less than 0.8W/kg and the algebraic summation of the 1g SAR value are less than 1.45W/kg, additional measurements are not required.



## **15. 5G NR Output Power (Unit: dBm)**

### **General Note:**

1. NR implementation of n71, n5, n66, n25, n2, and n41 when support NSA mode that is limited to EN-DC operations (NSA) with LTE Bands 2/5/12/13/66 acting as anchor bands. SAR tests for NR Bands and LTE Anchors Bands were performed separately due to limitations in SAR probe calibration factors.
2. NR implementation of n71, n66, n25, n2, and n41 also supports SA operations.
3. Following 5G NR n2/n5/n25/n66/n71 support SCS 15KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256 QAM, Bandwidth 5M/10M/15M/20M.
4. Following 5G NR n41 support SCS 30KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256QAM, Bandwidth 20M/40M/50M/60M/80M/90M/100M.
5. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
  - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not  $\frac{1}{2}$  dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is  $\leq 1.45$  W/kg; CP-OFDM testing is not required.
  - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QMA/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QMA/256QAM and smaller bandwidth output power will not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth.
  - c. SAR testing start with the largest channel bandwidth and measure SAR for PI/2 BPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
  - d. 50% RB allocation for PI/2 BPSK SAR testing follows 1RB PI/2 BPSK allocation procedure
  - e. PI/2 BPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  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
  - f. QPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not  $\frac{1}{2}$  dB higher than the same configuration in PI/2 BPSK, also reported SAR for the PI/2 BPSK configuration is less than 1.45 W/kg, QPSK/16QAM/64QAM/256QAM SAR testing are not required.
  - g. Smaller bandwidth output power for each RB allocation configuration for this device will not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg, smaller bandwidth SAR testing is not required for this device
6. Due to test setup limitations, SAR testing for NR was performed using Factory Test Mode software to establish the connection and perform SAR with 100% transmission.



**<3GPP 38.101 MPR for EN-DC>**

**Table 6.2.2-1 Maximum power reduction (MPR) for power class 3**

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
		$\leq 0.5^2$	$\leq 0.5^2$	0 <sup>2</sup>
	QPSK	$\leq 1$		0
	16 QAM	$\leq 2$		$\leq 1$
	64 QAM		$\leq 2.5$	
CP-OFDM	256 QAM		$\leq 4.5$	
	QPSK	$\leq 3$		$\leq 1.5$
		$\leq 3$		$\leq 2$
	16 QAM		$\leq 3.5$	
	64 QAM		$\leq 6.5$	
256 QAM		$\leq 6.5$		

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

**Table 6.2.2-2 Maximum power reduction (MPR) for power class 2**

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	$\leq 3.5$	$\leq 0.5$	0
	QPSK	$\leq 3.5$	$\leq 1$	0
	16 QAM	$\leq 3.5$	$\leq 2$	$\leq 1$
	64 QAM	$\leq 3.5$		$\leq 2.5$
	256 QAM		$\leq 4.5$	
CP-OFDM	QPSK	$\leq 3.5$	$\leq 3$	$\leq 1.5$
	16 QAM	$\leq 3.5$	$\leq 3$	$\leq 2$
	64 QAM		$\leq 3.5$	
	256 QAM		$\leq 6.5$	

**<Inter Band EN-DC Configuration>**

EN-DC configuration	Uplink EN-DC configuration	E-UTRA configuration	NR configuration
DC_5A_n2A	DC_5A_n2A	5A	n2A
DC_12A_n2A	DC_12A_n2A	12A	n2A
DC_66A_n2A	DC_66A_n2A	66A	n2A
DC_2A_n5A	DC_2A_n5A	2A	n5A
DC_66A_n5A	DC_66A_n5A	66A	n5A
DC_12A_n25A	DC_12A_n25A	12A	n25A
DC_66A_n25A	DC_66A_n25A	66A	n25A
DC_2A_n41A	DC_2A_n41A	2A	n41A
DC_66A_n41A	DC_66A_n41A	66A	n41A
DC_2A_n66A	DC_2A_n66A	2A	n66A
DC_5A_n66A	DC_5A_n66A	5A	n66A
DC_12A_n66A	DC_12A_n66A	12A	n66A
DC_13A_n66A	DC_13A_n66A	13A	n66A
DC_2A_n71A	DC_2A_n71A	2A	n66A
DC_66A_n71A	DC_66A_n71A	66A	n66A



## **16. WiFi/Bluetooth Output Power (Unit: dBm)**

### **General Note:**

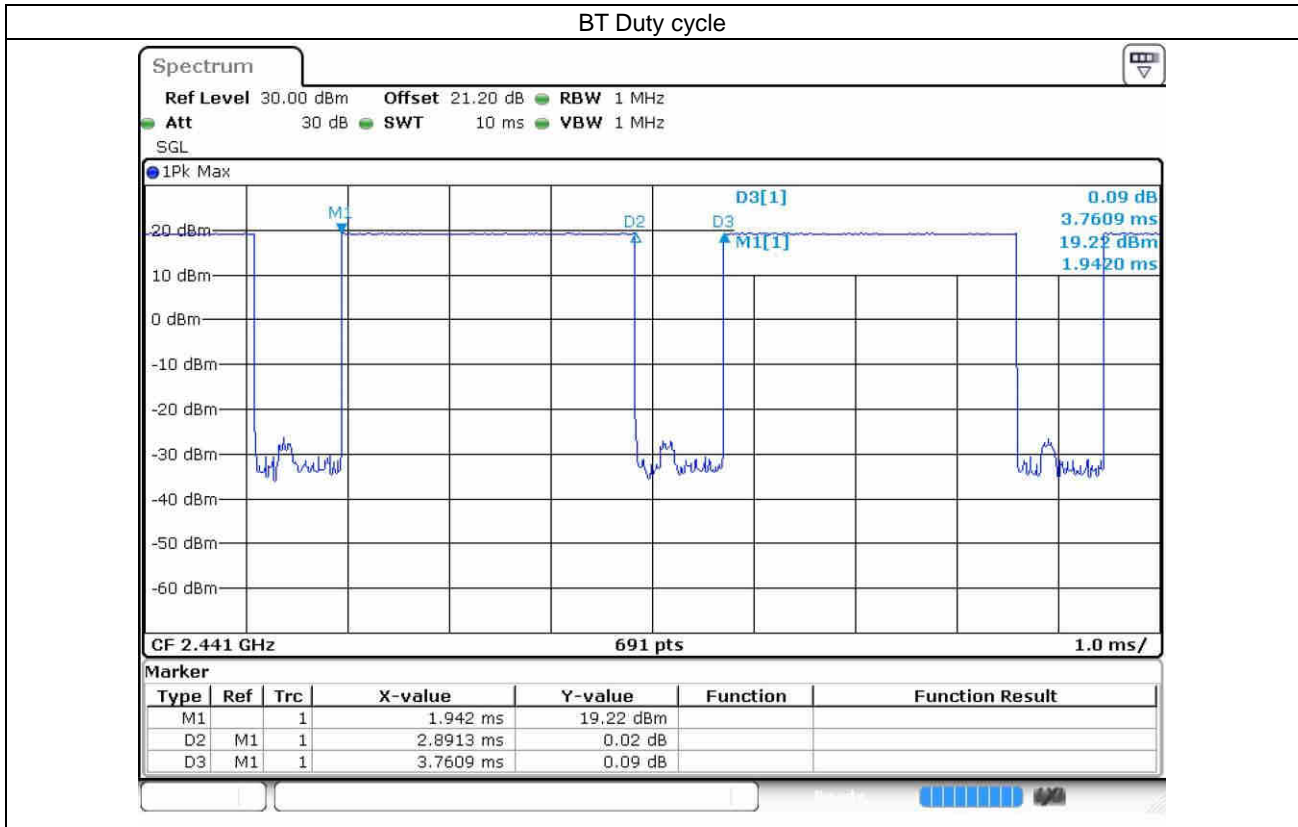
1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
2. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
3. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
4. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures. 18 The initial test position procedure is described in the following:
  - a. When the reported SAR of the initial test position is  $\leq 0.4$  W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
  - b. When the reported SAR of the test position is  $> 0.4$  W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is  $\leq 0.8$  W/kg or all required test position are tested.
  - c. For all positions/configurations, when the reported SAR is  $> 0.8$  W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2$  W/kg or all required channels are tested.
5. Per 201904 TCBC workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing. For the table below the 802.11ax maximum power is SU (non-OFDMA).
6. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing.
7. For modes with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands
8. When SAR testing for 802.11ax is required
  - a. If the maximum output power is highest for OFDMA scenarios, choose the tone size with the maximum number of tones and the highest maximum output power
  - b. Otherwise, consider the fully allocated channel for SAR testing
  - c. When SAR testing is required on RU sizes less than the fully allocated channel, use the RU number closest to the middle of the channel, choosing the higher RU number when two RUs are equidistant to the middle of the channel



<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.9% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.





17. ANT+ Exclusions Applied

Mode Band	Max Average power(dBm)
ANT+	-10.00

**Note:**

- Per KDB 447498 D01v06, the 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at *test separation distances* ≤ 50 mm are determined by:  

$$[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] \cdot [\sqrt{f(GHz)}] \leq 3.0$$
for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
  - f(GHz) is the RF channel transmit frequency in GHz
  - Power and distance are rounded to the nearest mW and mm before calculation
  - The result is rounded to one decimal place for comparison

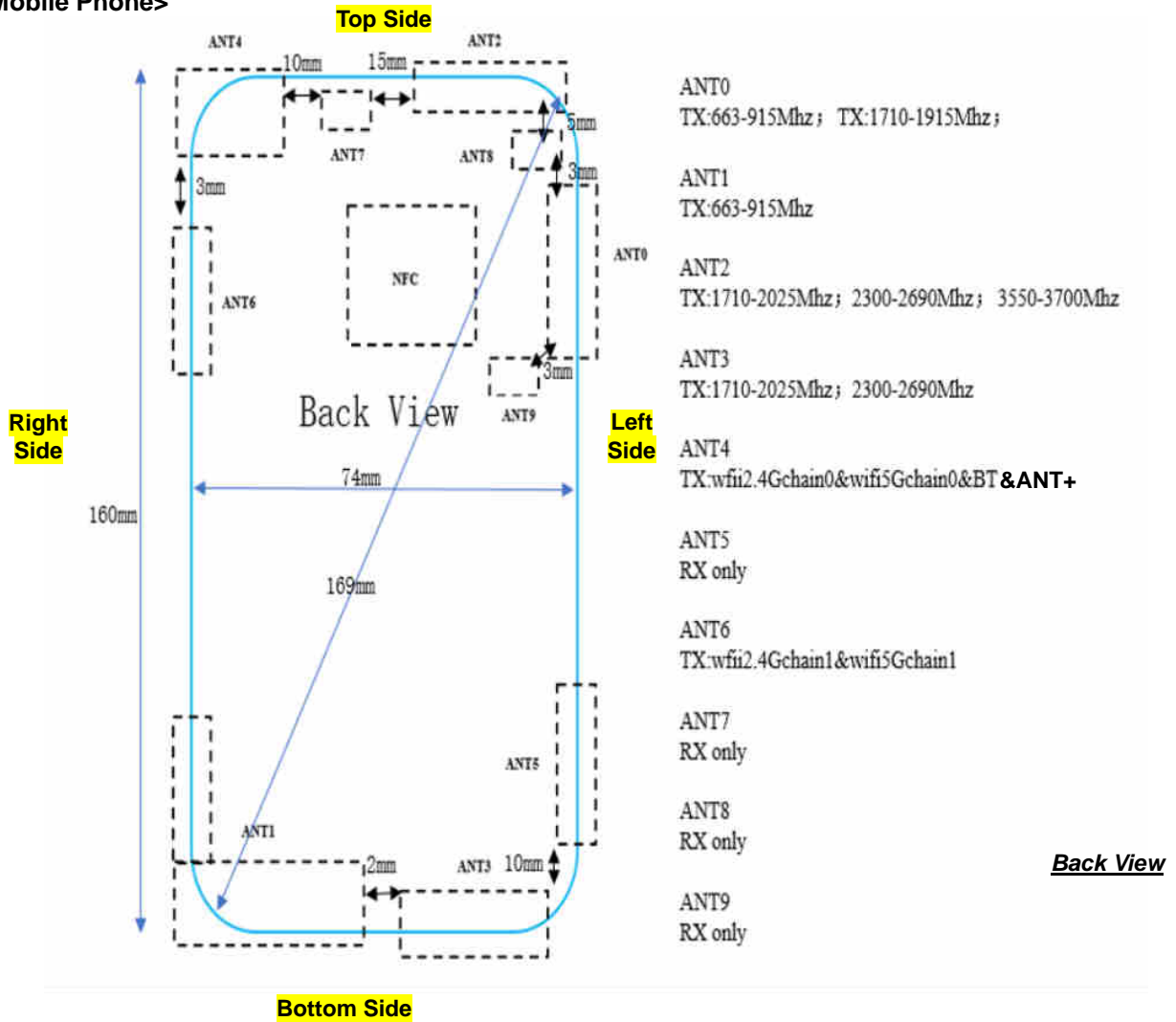
Bluetooth Max Power (dBm)	Separation Distance (mm)	Frequency (GHz)	exclusion thresholds
-10.00	< 5	2.48	0.03

**Note:**

Per KDB 447498 D01v06, when the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion. The test exclusion threshold is 0.03 which is ≤ 3, SAR testing is not required.

### 18. Antenna Location

<Mobile Phone>



Antennas Description	
WWAN UAT	ANT 0/2
WWAN LAT	ANT 1/3
WLAN 2.4GHz &5GHz & BT Antenna 1& ANT+	ANT 4
WLAN 2.4GHz &5GHz Antenna 2	ANT 6

**General Note:** LTE B2/B66 ANT 0 can work only when inter band UL CA/EN-DC is abled.

Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN UAT	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
WWAN LAT	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	≤ 25mm
BT&WLAN&ANT+	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm

Positions for SAR tests; Hotspot mode						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN UAT	Yes	Yes	Yes	No	Yes	Yes
WWAN LAT	Yes	Yes	No	Yes	Yes	Yes
BT&WLAN&ANT+	Yes	Yes	Yes	No	Yes	No

**General Note:**

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



## **19. SAR Test Results**

### **General Note:**

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
  - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
  - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
  - c. For WWAN/Bluetooth: Reported SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor
  - d. For WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)\* Duty Cycle scaling factor \* Tune-up scaling factor
  - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)\* Tune-up Scaling Factor\* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
  - $\leq 0.8$  W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\leq 100$  MHz
  - $\leq 0.6$  W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
  - $\leq 0.4$  W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is  $\geq 200$  MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8$ W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. For WWAN UAT antenna, when the audio is actively routed through the earpiece receiver, then power reduction will be implemented immediately.
  - Reduced power level 1-While the device WWAN is transmitting at the WWAN Top antenna.
  - Reduced power level 2-While the device WLAN 2.4GHz is transmitting simultaneously with the WWAN Top antenna.
  - Reduced power level 3-While the device WLAN 5GHz is transmitting simultaneously with the WWAN Top antenna.
  - Reduced power level 4-While the device WLAN 2.4GHz and WLAN 5GHz is transmitting simultaneously with the WWAN Top antenna.
5. For WWAN UAT antenna, hotspot mode is enabled, power reduction will be activated to limit the maximum power.
6. For WWAN LAT antenna, hotspot mode is enabled, power reduction will be activated to limit the maximum power.
7. For WWAN LAT antenna, when the p-Reduced is detect handheld state, power reduction will be activated to limit the maximum power.
8. For WLAN when transmit standalone or transmit simultaneous with WWAN LAT or UAT, power reduction will be activated to limit the different maximum power level for head / hotspot / body-worn / extremity.
  - Reduced power level 1- While the device WLAN is transmitting standalone.
  - Reduced power level 2- While the device WLAN2.4GHz/5GHz is transmitting simultaneously with the WWAN antenna.
  - Reduced power level 3-While the device WLAN 2.4GHz is transmitting simultaneously with the WLAN 5GHz
  - Reduced power level 4-While the device WLAN 2.4GHz and WLAN 5GHz is transmitting simultaneously with the WWAN Top antenna
9. For Bluetooth antenna, when the audio is actively routed through the earpiece receiver, then power reduction will be implemented immediately.
10. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is  $\leq 1.2$  W/kg, SAR testing with a headset connected to the handset is not required.
11. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension  $> 15.0$  cm or an overall diagonal dimension  $> 16.0$  cm, when hotspot mode applies, 10-g product specific SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR  $> 1.2$  W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold, WCDMA B2/B4, CDMA BC0/BC1/BC10, LTE B2 / B4 / B7 / B12 / B17 / B25 / B30 / B66, 5G NR n66/n2/n25/n41 and WLAN 2.4GHz is required to be tested
12. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
13. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.



14. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance was performed for handheld:

Back: [7 mm](#)

Bottom side: [8 mm](#)

**GSM Note:**

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

**UMTS Note:**

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

**CDMA Note:**

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



**LTE Note:**

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is  $> 1.45$  W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, 16QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is  $>$  not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE band 2/4/17/38 SAR test was covered by Band 25/66/12/41; according to TCB workshop, SAR test for overlapping LTE bands can be reduced if
  - a. The maximum output power, including tolerance, for the smaller band is  $\leq$  the larger band to qualify for the SAR test exclusion.
  - b. The channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band.

**5G NR Note:**

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
2. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
3. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
4. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are  $\leq 0.8$  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
5. 16QAM/64QAM/256QAM output powers according to 3GPP MPR will not  $\frac{1}{2}$  dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, 16QAM/64QAM/256QAM SAR testing are not required.
6. Smaller bandwidth output power for each RB allocation configuration for this device will not  $\frac{1}{2}$  dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is  $\leq 1.45$  W/kg, smaller bandwidth SAR testing is not required for this device

**WLAN Note:**

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is  $\leq 1.2$  W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 or U-NII-2A SAR testing is not required when the U-NII-1 or U-NII-2A band highest reported SAR for a test configuration is  $\leq 1.2$  W/kg, SAR is not required for U-NII-1 band or U-NII-2A.
3. When the reported SAR of the test position is  $> 0.4$  W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is  $\leq 0.8$  W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is  $> 0.8$  W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is  $\leq 1.2$  W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.



19.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_UAT	GPRS(3 Tx slots)	Right Cheek	reduced power level 1	251	848.8	27.07	28.30	1.327	-0.04	0.563	0.747
	GSM850_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 1	251	848.8	27.07	28.30	1.327	0.15	0.102	0.135
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 1	251	848.8	27.07	28.30	1.327	-0.03	0.724	0.961
	GSM850_UAT	GPRS(3 Tx slots)	Left Tilted	reduced power level 1	251	848.8	27.07	28.30	1.327	0.08	0.098	0.130
01	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 1	128	824.2	26.98	28.30	1.355	-0.03	0.762	1.033
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 1	189	836.4	27.06	28.30	1.330	-0.04	0.665	0.885
	GSM850_UAT	GPRS(3 Tx slots)	Right Cheek	reduced power level 2	251	848.8	26.23	27.40	1.309	-0.01	0.512	0.670
	GSM850_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 2	251	848.8	26.23	27.40	1.309	-0.11	0.095	0.124
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 2	251	848.8	26.23	27.40	1.309	-0.08	0.634	0.830
	GSM850_UAT	GPRS(3 Tx slots)	Left Tilted	reduced power level 2	251	848.8	26.23	27.40	1.309	0.03	0.086	0.113
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 2	128	824.2	26.14	27.40	1.337	0.01	0.684	0.914
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 2	189	836.4	26.18	27.40	1.324	0.11	0.595	0.788
	GSM850_UAT	GPRS(3 Tx slots)	Right Cheek	reduced power level 3/4	251	848.8	22.25	23.90	1.462	-0.07	0.228	0.333
	GSM850_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 3/4	251	848.8	22.25	23.90	1.462	0.09	0.041	0.060
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 3/4	251	848.8	22.25	23.90	1.462	0.06	0.277	0.405
	GSM850_UAT	GPRS(3 Tx slots)	Left Tilted	reduced power level 3/4	251	848.8	22.25	23.90	1.462	0.13	0.035	0.051
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 3/4	128	824.2	22.07	23.90	1.524	0.09	0.292	0.445
	GSM850_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 3/4	189	836.4	22.19	23.90	1.483	-0.03	0.263	0.390
	GSM850_LAT	GPRS(3 Tx slots)	Right Cheek	Full	251	848.8	28.19	29.80	1.449	0.02	0.093	0.134
	GSM850_LAT	GPRS(3 Tx slots)	Right Tilted	Full	251	848.8	28.19	29.80	1.449	0.04	0.061	0.088
	GSM850_LAT	GPRS(3 Tx slots)	Left Cheek	Full	251	848.8	28.19	29.80	1.449	0.01	0.146	0.212
	GSM850_LAT	GPRS(3 Tx slots)	Left Tilted	Full	251	848.8	28.19	29.80	1.449	-0.1	0.059	0.086
	GSM850_LAT	GPRS(3 Tx slots)	Left Cheek	Full	128	824.2	28.07	29.80	1.489	0.16	0.119	0.177
	GSM850_LAT	GPRS(3 Tx slots)	Left Cheek	Full	189	836.4	28.15	29.80	1.462	-0.02	0.144	0.211
	GSM1900_UAT	GPRS(3 Tx slots)	Right Cheek	reduced power level 1	810	1909.8	20.74	21.90	1.306	0.02	0.452	0.590
02	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 1	810	1909.8	20.74	21.90	1.306	0.07	0.536	0.700
	GSM1900_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 1	810	1909.8	20.74	21.90	1.306	0.11	0.246	0.321
	GSM1900_UAT	GPRS(3 Tx slots)	Left Tilted	reduced power level 1	810	1909.8	20.74	21.90	1.306	-0.12	0.301	0.393
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 1	512	1850.2	20.66	21.90	1.330	-0.1	0.509	0.677
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 1	661	1880	20.68	21.90	1.324	-0.05	0.527	0.698
	GSM1900_UAT	GPRS(3 Tx slots)	Right Cheek	reduced power level 2	810	1909.8	19.97	21.00	1.268	0.04	0.340	0.431
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 2	810	1909.8	19.97	21.00	1.268	0.11	0.408	0.517
	GSM1900_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 2	810	1909.8	19.97	21.00	1.268	0.08	0.186	0.236
	GSM1900_UAT	GPRS(3 Tx slots)	Left Tilted	reduced power level 2	810	1909.8	19.97	21.00	1.268	0.09	0.225	0.285
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 2	512	1850.2	19.96	21.00	1.271	-0.05	0.361	0.459
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 2	661	1880	19.88	21.00	1.294	-0.1	0.378	0.489
	GSM1900_UAT	GPRS(3 Tx slots)	Right Cheek	reduced power level 3/4	810	1909.8	17.60	18.50	1.230	0.02	0.227	0.279
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 3/4	810	1909.8	17.60	18.50	1.230	0.03	0.273	0.336
	GSM1900_UAT	GPRS(3 Tx slots)	Left Cheek	reduced power level 3/4	810	1909.8	17.60	18.50	1.230	-0.07	0.125	0.154
	GSM1900_UAT	GPRS(3 Tx slots)	Left Tilted	reduced power level 3/4	810	1909.8	17.60	18.50	1.230	-0.01	0.151	0.186
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 3/4	512	1850.2	17.41	18.50	1.285	-0.05	0.221	0.284
	GSM1900_UAT	GPRS(3 Tx slots)	Right Tilted	reduced power level 3/4	661	1880	17.47	18.50	1.268	0.07	0.242	0.307
	GSM1900_LAT	GPRS(3 Tx slots)	Right Cheek	Full	810	1909.8	25.28	26.50	1.324	0.15	0.106	0.140
	GSM1900_LAT	GPRS(3 Tx slots)	Right Tilted	Full	810	1909.8	25.28	26.50	1.324	-0.08	0.057	0.075
	GSM1900_LAT	GPRS(3 Tx slots)	Left Cheek	Full	810	1909.8	25.28	26.50	1.324	0.02	0.105	0.139
	GSM1900_LAT	GPRS(3 Tx slots)	Left Tilted	Full	810	1909.8	25.28	26.50	1.324	0.12	0.054	0.071
	GSM1900_LAT	GPRS(3 Tx slots)	Right Cheek	Full	512	1850.2	25.14	26.50	1.368	-0.04	0.095	0.130
	GSM1900_LAT	GPRS(3 Tx slots)	Right Cheek	Full	661	1880	25.22	26.50	1.343	0.05	0.107	0.144



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 1	4182	836.4	21.90	22.60	1.175	0.05	0.537	0.631
	WCDMA V_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 1	4182	836.4	21.90	22.60	1.175	-0.09	0.125	0.147
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 1	4182	836.4	21.90	22.60	1.175	0.12	0.757	0.889
	WCDMA V_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 1	4182	836.4	21.90	22.60	1.175	-0.1	0.144	0.169
03	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 1	4132	826.4	21.87	22.60	1.183	0.08	0.812	0.961
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 1	4233	846.6	21.80	22.60	1.202	0.11	0.776	0.933
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 2	4182	836.4	20.88	21.70	1.208	0.13	0.439	0.530
	WCDMA V_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 2	4182	836.4	20.88	21.70	1.208	0.03	0.102	0.123
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 2	4182	836.4	20.88	21.70	1.208	0.12	0.620	0.749
	WCDMA V_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 2	4182	836.4	20.88	21.70	1.208	0.04	0.122	0.147
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 2	4132	826.4	20.86	21.70	1.213	0.12	0.670	0.813
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 2	4233	846.6	20.81	21.70	1.227	-0.08	0.623	0.765
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 3/4	4182	836.4	18.20	19.20	1.259	-0.1	0.249	0.313
	WCDMA V_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 3/4	4182	836.4	18.20	19.20	1.259	0.07	0.057	0.072
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 3/4	4182	836.4	18.20	19.20	1.259	0.06	0.344	0.433
	WCDMA V_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 3/4	4182	836.4	18.20	19.20	1.259	-0.12	0.068	0.086
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 3/4	4132	826.4	18.19	19.20	1.262	0.13	0.376	0.474
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 3/4	4233	846.6	18.13	19.20	1.279	0.17	0.343	0.439
	WCDMA V_LAT	RMC 12.2Kbps	Right Cheek	Full	4182	836.4	23.60	24.80	1.318	-0.07	0.125	0.165
	WCDMA V_LAT	RMC 12.2Kbps	Right Tilted	Full	4182	836.4	23.60	24.80	1.318	0.03	0.082	0.108
	WCDMA V_LAT	RMC 12.2Kbps	Left Cheek	Full	4182	836.4	23.60	24.80	1.318	0.08	0.174	0.229
	WCDMA V_LAT	RMC 12.2Kbps	Left Tilted	Full	4182	836.4	23.60	24.80	1.318	-0.05	0.080	0.105
	WCDMA V_LAT	RMC 12.2Kbps	Left Cheek	Full	4132	826.4	23.52	24.80	1.343	-0.02	0.185	0.248
	WCDMA V_LAT	RMC 12.2Kbps	Left Cheek	Full	4233	846.6	23.59	24.80	1.321	0.08	0.189	0.250
	WCDMA IV_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 1	1513	1752.6	17.80	18.70	1.230	0.03	0.645	0.794
04	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 1	1513	1752.6	17.80	18.70	1.230	-0.17	0.888	1.092
	WCDMA IV_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 1	1513	1752.6	17.80	18.70	1.230	0.18	0.365	0.449
	WCDMA IV_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 1	1513	1752.6	17.80	18.70	1.230	0.04	0.526	0.647
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 1	1312	1712.4	17.72	18.70	1.253	-0.18	0.807	1.011
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 1	1413	1732.6	17.77	18.70	1.239	-0.16	0.841	1.042
	WCDMA IV_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 2	1513	1752.6	16.80	17.80	1.259	0.18	0.528	0.665
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 2	1513	1752.6	16.80	17.80	1.259	0.19	0.724	0.911
	WCDMA IV_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 2	1513	1752.6	16.80	17.80	1.259	0.1	0.288	0.363
	WCDMA IV_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 2	1513	1752.6	16.80	17.80	1.259	0.02	0.405	0.510
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 2	1312	1712.4	16.70	17.80	1.288	0.02	0.628	0.809
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 2	1413	1732.6	16.77	17.80	1.268	0.01	0.657	0.833
	WCDMA IV_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 3/4	1513	1752.6	14.04	15.20	1.306	-0.11	0.297	0.388
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 3/4	1513	1752.6	14.04	15.20	1.306	0.13	0.397	0.519
	WCDMA IV_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 3/4	1513	1752.6	14.04	15.20	1.306	-0.05	0.257	0.336
	WCDMA IV_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 3/4	1513	1752.6	14.04	15.20	1.306	-0.16	0.249	0.325
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 3/4	1312	1712.4	13.87	15.20	1.358	-0.1	0.341	0.463
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 3/4	1413	1732.6	14.01	15.20	1.315	0.01	0.336	0.442
	WCDMA IV_LAT	RMC 12.2Kbps	Right Cheek	Full	1513	1752.6	23.73	24.80	1.279	0.09	0.161	0.206
	WCDMA IV_LAT	RMC 12.2Kbps	Right Tilted	Full	1513	1752.6	23.73	24.80	1.279	0.19	0.110	0.141
	WCDMA IV_LAT	RMC 12.2Kbps	Left Cheek	Full	1513	1752.6	23.73	24.80	1.279	0	0.381	0.487
	WCDMA IV_LAT	RMC 12.2Kbps	Left Tilted	Full	1513	1752.6	23.73	24.80	1.279	0.11	0.080	0.102
	WCDMA IV_LAT	RMC 12.2Kbps	Left Cheek	Full	1312	1712.4	23.61	24.80	1.315	0.13	0.325	0.427
	WCDMA IV_LAT	RMC 12.2Kbps	Left Cheek	Full	1413	1732.6	23.70	24.80	1.288	-0.17	0.351	0.452



Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA II_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 1	9400	1880	17.61	18.50	1.227	-0.06	0.637	0.782
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 1	9400	1880	17.61	18.50	1.227	-0.03	0.838	1.029
	WCDMA II_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 1	9400	1880	17.61	18.50	1.227	0.04	0.402	0.493
	WCDMA II_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 1	9400	1880	17.61	18.50	1.227	0.05	0.532	0.653
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 1	9262	1852.4	17.60	18.50	1.230	0.18	0.808	0.994
05	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 1	9538	1907.6	17.57	18.50	1.239	-0.09	0.871	<b>1.079</b>
	WCDMA II_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 2	9400	1880	16.77	17.60	1.211	-0.19	0.522	0.632
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 2	9400	1880	16.77	17.60	1.211	0.05	0.677	0.820
	WCDMA II_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 2	9400	1880	16.77	17.60	1.211	0.13	0.328	0.397
	WCDMA II_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 2	9400	1880	16.77	17.60	1.211	0.13	0.429	0.519
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 2	9262	1852.4	16.70	17.60	1.230	0.14	0.643	0.791
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 2	9538	1907.6	16.74	17.60	1.219	0.01	0.705	0.859
	WCDMA II_UAT	RMC 12.2Kbps	Right Cheek	reduced power level 3/4	9400	1880	14.18	15.10	1.236	0.18	0.298	0.368
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 3/4	9400	1880	14.18	15.10	1.236	-0.16	0.382	0.472
	WCDMA II_UAT	RMC 12.2Kbps	Left Cheek	reduced power level 3/4	9400	1880	14.18	15.10	1.236	0	0.195	0.241
	WCDMA II_UAT	RMC 12.2Kbps	Left Tilted	reduced power level 3/4	9400	1880	14.18	15.10	1.236	-0.17	0.247	0.305
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 3/4	9262	1852.4	14.09	15.10	1.262	-0.17	0.365	0.461
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	reduced power level 3/4	9538	1907.6	14.09	15.10	1.262	-0.11	0.399	0.503
	WCDMA II_LAT	RMC 12.2Kbps	Right Cheek	Full	9400	1880	23.67	24.80	1.297	-0.15	0.231	0.300
	WCDMA II_LAT	RMC 12.2Kbps	Right Tilted	Full	9400	1880	23.67	24.80	1.297	-0.13	0.107	0.139
	WCDMA II_LAT	RMC 12.2Kbps	Left Cheek	Full	9400	1880	23.67	24.80	1.297	0.08	0.193	0.250
	WCDMA II_LAT	RMC 12.2Kbps	Left Tilted	Full	9400	1880	23.67	24.80	1.297	-0.15	0.109	0.141
	WCDMA II_LAT	RMC 12.2Kbps	Right Cheek	Full	9262	1852.4	23.62	24.80	1.312	-0.06	0.209	0.274
	WCDMA II_LAT	RMC 12.2Kbps	Right Cheek	Full	9538	1907.6	23.65	24.80	1.303	0.05	0.245	0.319



<CDMA SAR>

Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA2000 BC0_UAT	RC3+SO55	Right Cheek	reduced power level 1/2	384	836.52	20.16	21.30	1.300	0.03	0.465	0.605
	CDMA2000 BC0_UAT	RC3+SO55	Right Tilted	reduced power level 1/2	384	836.52	20.16	21.30	1.300	0.01	0.108	0.140
	CDMA2000 BC0_UAT	RC3+SO55	Left Cheek	reduced power level 1/2	384	836.52	20.16	21.30	1.300	-0.08	0.636	0.827
	CDMA2000 BC0_UAT	RC3+SO55	Left Tilted	reduced power level 1/2	384	836.52	20.16	21.30	1.300	0.06	0.122	0.159
06	CDMA2000 BC0_UAT	RC3+SO55	Left Cheek	reduced power level 1/2	1013	824.7	20.13	21.30	1.309	-0.09	0.702	0.919
	CDMA2000 BC0_UAT	RC3+SO55	Left Cheek	reduced power level 1/2	777	848.31	20.11	21.30	1.315	-0.02	0.641	0.843
	CDMA2000 BC0_UAT	RC3+SO55	Right Cheek	reduced power level 3/4	384	836.52	17.57	18.90	1.358	-0.06	0.246	0.334
	CDMA2000 BC0_UAT	RC3+SO55	Right Tilted	reduced power level 3/4	384	836.52	17.57	18.90	1.358	0.04	0.054	0.073
	CDMA2000 BC0_UAT	RC3+SO55	Left Cheek	reduced power level 3/4	384	836.52	17.57	18.90	1.358	-0.01	0.330	0.448
	CDMA2000 BC0_UAT	RC3+SO55	Left Tilted	reduced power level 3/4	384	836.52	17.57	18.90	1.358	-0.16	0.061	0.083
	CDMA2000 BC0_UAT	RC3+SO55	Left Cheek	reduced power level 3/4	1013	824.7	17.52	18.90	1.374	0.08	0.367	0.504
	CDMA2000 BC0_UAT	RC3+SO55	Left Cheek	reduced power level 3/4	777	848.31	17.50	18.90	1.380	0.03	0.336	0.464
	CDMA2000 BC0_LAT	RC3+SO55	Right Cheek	Full	384	836.52	23.59	24.80	1.321	0.18	0.109	0.144
	CDMA2000 BC0_LAT	RC3+SO55	Right Tilted	Full	384	836.52	23.59	24.80	1.321	0.03	0.078	0.103
	CDMA2000 BC0_LAT	RC3+SO55	Left Cheek	Full	384	836.52	23.59	24.80	1.321	0.15	0.174	0.230
	CDMA2000 BC0_LAT	RC3+SO55	Left Tilted	Full	384	836.52	23.59	24.80	1.321	0.16	0.077	0.102
	CDMA2000 BC0_LAT	RC3+SO55	Left Cheek	Full	1013	824.7	23.42	24.80	1.374	-0.04	0.166	0.228
	CDMA2000 BC0_LAT	RC3+SO55	Left Cheek	Full	777	848.31	23.14	24.80	1.466	0.17	0.113	0.166
	CDMA2000 BC10_UAT	RC3+SO55	Right Cheek	reduced power level 1	580	820.5	19.90	21.40	1.413	0.11	0.478	0.675
	CDMA2000 BC10_UAT	RC3+SO55	Right Tilted	reduced power level 1	580	820.5	19.90	21.40	1.413	0.06	0.081	0.114
07	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 1	580	820.5	19.90	21.40	1.413	-0.02	0.672	0.949
	CDMA2000 BC10_UAT	RC3+SO55	Left Tilted	reduced power level 1	580	820.5	19.90	21.40	1.413	-0.11	0.102	0.144
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 1	476	817.9	19.86	21.40	1.426	0.01	0.606	0.864
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 1	684	823.1	19.83	21.40	1.435	0.09	0.618	0.887
	CDMA2000 BC10_UAT	RC3+SO55	Right Cheek	reduced power level 2	580	820.5	19.10	20.50	1.380	-0.03	0.392	0.541
	CDMA2000 BC10_UAT	RC3+SO55	Right Tilted	reduced power level 2	580	820.5	19.10	20.50	1.380	-0.06	0.071	0.098
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 2	580	820.5	19.10	20.50	1.380	0.04	0.578	0.798
	CDMA2000 BC10_UAT	RC3+SO55	Left Tilted	reduced power level 2	580	820.5	19.10	20.50	1.380	0.01	0.086	0.119
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 2	476	817.9	19.08	20.50	1.387	-0.02	0.506	0.702
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 2	684	823.1	19.06	20.50	1.393	0.07	0.524	0.730
	CDMA2000 BC10_UAT	RC3+SO55	Right Cheek	reduced power level 3/4	580	820.5	16.40	17.90	1.413	0.03	0.197	0.278
	CDMA2000 BC10_UAT	RC3+SO55	Right Tilted	reduced power level 3/4	580	820.5	16.40	17.90	1.413	0.12	0.035	0.049
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 3/4	580	820.5	16.40	17.90	1.413	0.06	0.278	0.393
	CDMA2000 BC10_UAT	RC3+SO55	Left Tilted	reduced power level 3/4	580	820.5	16.40	17.90	1.413	0.14	0.044	0.062
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 3/4	476	817.9	16.37	17.90	1.422	-0.13	0.245	0.348
	CDMA2000 BC10_UAT	RC3+SO55	Left Cheek	reduced power level 3/4	684	823.1	16.35	17.90	1.429	0.17	0.255	0.364
	CDMA2000 BC10_LAT	RC3+SO55	Right Cheek	Full	580	820.5	23.44	24.80	1.368	-0.01	0.076	0.104
	CDMA2000 BC10_LAT	RC3+SO55	Right Tilted	Full	580	820.5	23.44	24.80	1.368	0.05	0.044	0.060
	CDMA2000 BC10_LAT	RC3+SO55	Left Cheek	Full	580	820.5	23.44	24.80	1.368	0.02	0.100	0.137
	CDMA2000 BC10_LAT	RC3+SO55	Left Tilted	Full	580	820.5	23.44	24.80	1.368	0.03	0.046	0.062
	CDMA2000 BC10_LAT	RC3+SO55	Left Cheek	Full	476	817.9	23.41	24.80	1.377	0.04	0.114	0.157
	CDMA2000 BC10_LAT	RC3+SO55	Left Cheek	Full	684	823.1	23.37	24.80	1.390	0.08	0.155	0.215



Plot No.	Band	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA2000 BC1_UAT	RC3+SO55	Right Cheek	reduced power level 1	600	1880	16.40	17.40	1.259	0.01	0.570	0.718
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 1	600	1880	16.40	17.40	1.259	-0.17	0.670	0.843
	CDMA2000 BC1_UAT	RC3+SO55	Left Cheek	reduced power level 1	600	1880	16.40	17.40	1.259	-0.02	0.319	0.402
	CDMA2000 BC1_UAT	RC3+SO55	Left Tilted	reduced power level 1	600	1880	16.40	17.40	1.259	-0.13	0.401	0.505
08	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 1	25	1851.25	16.31	17.40	1.285	0.02	0.690	<b>0.887</b>
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 1	1175	1908.75	16.30	17.40	1.288	-0.03	0.668	0.861
	CDMA2000 BC1_UAT	RC3+SO55	Right Cheek	reduced power level 2	600	1880	15.63	16.60	1.250	-0.16	0.458	0.573
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 2	600	1880	15.63	16.60	1.250	-0.17	0.528	0.660
	CDMA2000 BC1_UAT	RC3+SO55	Left Cheek	reduced power level 2	600	1880	15.63	16.60	1.250	-0.06	0.255	0.319
	CDMA2000 BC1_UAT	RC3+SO55	Left Tilted	reduced power level 2	600	1880	15.63	16.60	1.250	0.15	0.331	0.414
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 2	25	1851.25	15.55	16.60	1.274	0.06	0.555	0.707
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 2	1175	1908.75	15.53	16.60	1.279	0.14	0.527	0.674
	CDMA2000 BC1_UAT	RC3+SO55	Right Cheek	reduced power level 3/4	600	1880	13.09	14.00	1.233	0.18	0.262	0.323
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 3/4	600	1880	13.09	14.00	1.233	0.05	0.299	0.369
	CDMA2000 BC1_UAT	RC3+SO55	Left Cheek	reduced power level 3/4	600	1880	13.09	14.00	1.233	0.11	0.144	0.178
	CDMA2000 BC1_UAT	RC3+SO55	Left Tilted	reduced power level 3/4	600	1880	13.09	14.00	1.233	-0.02	0.191	0.236
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 3/4	25	1851.25	13.03	14.00	1.250	0.01	0.318	0.398
	CDMA2000 BC1_UAT	RC3+SO55	Right Tilted	reduced power level 3/4	1175	1908.75	13.01	14.00	1.256	-0.14	0.300	0.377
	CDMA2000 BC1_LAT	RC3+SO55	Right Cheek	Full	600	1880	23.63	24.80	1.309	-0.04	0.159	0.208
	CDMA2000 BC1_LAT	RC3+SO55	Right Tilted	Full	600	1880	23.63	24.80	1.309	-0.01	0.102	0.134
	CDMA2000 BC1_LAT	RC3+SO55	Left Cheek	Full	600	1880	23.63	24.80	1.309	-0.14	0.145	0.190
	CDMA2000 BC1_LAT	RC3+SO55	Left Tilted	Full	600	1880	23.63	24.80	1.309	0.02	0.097	0.126
	CDMA2000 BC1_LAT	RC3+SO55	Right Cheek	Full	25	1851.25	23.48	24.80	1.355	0.02	0.151	0.205
	CDMA2000 BC1_LAT	RC3+SO55	Right Cheek	Full	1175	1908.75	23.54	24.80	1.337	-0.02	0.176	0.235



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 1	133322	683	20.99	21.90	1.233	-0.04	0.575	0.709
	LTE Band 71_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 1	133322	683	20.99	21.90	1.233	-0.19	0.128	0.158
	LTE Band 71_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 1	133322	683	20.99	21.90	1.233	0.06	0.681	0.840
	LTE Band 71_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 1	133322	683	20.99	21.90	1.233	0.05	0.133	0.164
	LTE Band 71_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 1	133322	683	20.95	21.90	1.245	-0.08	0.591	0.736
	LTE Band 71_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 1	133322	683	20.95	21.90	1.245	0.04	0.140	0.174
09	LTE Band 71_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 1	133322	683	20.95	21.90	1.245	0.05	0.765	<b>0.952</b>
	LTE Band 71_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 1	133322	683	20.95	21.90	1.245	0.11	0.151	0.188
	LTE Band 71_UAT	20M	QPSK	100	0	Left Cheek	reduced power level 1	133322	683	20.94	21.90	1.247	-0.02	0.762	0.951
	LTE Band 71_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 2	133322	683	20.09	21.00	1.233	0.06	0.463	0.571
	LTE Band 71_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 2	133322	683	20.09	21.00	1.233	0.01	0.099	0.122
	LTE Band 71_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 2	133322	683	20.09	21.00	1.233	0.12	0.553	0.682
	LTE Band 71_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 2	133322	683	20.09	21.00	1.233	-0.09	0.108	0.133
	LTE Band 71_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 2	133322	683	20.07	21.00	1.239	-0.17	0.492	0.609
	LTE Band 71_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 2	133322	683	20.07	21.00	1.239	0.15	0.106	0.131
	LTE Band 71_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 2	133322	683	20.07	21.00	1.239	0.04	0.624	0.773
	LTE Band 71_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 2	133322	683	20.07	21.00	1.239	0.02	0.118	0.146
	LTE Band 71_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 3/4	133322	683	17.76	18.50	1.186	0	0.262	0.311
	LTE Band 71_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 3/4	133322	683	17.76	18.50	1.186	0.04	0.058	0.069
	LTE Band 71_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 3/4	133322	683	17.76	18.50	1.186	0.11	0.320	0.379
	LTE Band 71_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 3/4	133322	683	17.76	18.50	1.186	-0.03	0.066	0.078
	LTE Band 71_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 3/4	133322	683	17.65	18.50	1.216	0.04	0.268	0.326
	LTE Band 71_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 3/4	133322	683	17.65	18.50	1.216	0.03	0.060	0.073
	LTE Band 71_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 3/4	133322	683	17.65	18.50	1.216	0.06	0.364	0.443
	LTE Band 71_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 3/4	133322	683	17.65	18.50	1.216	0.07	0.070	0.085
	LTE Band 71_LAT	20M	QPSK	1	0	Right Cheek	Full	133322	683	22.85	23.80	1.245	0.03	0.099	0.123
	LTE Band 71_LAT	20M	QPSK	1	0	Right Tilted	Full	133322	683	22.85	23.80	1.245	0.01	0.048	0.060
	LTE Band 71_LAT	20M	QPSK	1	0	Left Cheek	Full	133322	683	22.85	23.80	1.245	0.05	0.113	0.141
	LTE Band 71_LAT	20M	QPSK	1	0	Left Tilted	Full	133322	683	22.85	23.80	1.245	-0.08	0.047	0.058
	LTE Band 71_LAT	20M	QPSK	50	24	Right Cheek	Full	133322	683	21.89	22.80	1.233	-0.05	0.073	0.090
	LTE Band 71_LAT	20M	QPSK	50	24	Right Tilted	Full	133322	683	21.89	22.80	1.233	0.02	0.038	0.047
	LTE Band 71_LAT	20M	QPSK	50	24	Left Cheek	Full	133322	683	21.89	22.80	1.233	-0.07	0.087	0.107
	LTE Band 71_LAT	20M	QPSK	50	24	Left Tilted	Full	133322	683	21.89	22.80	1.233	0.04	0.035	0.043



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 12_UAT	10M	QPSK	1	49	Right Cheek	reduced power level 1	23095	707.5	20.28	21.00	1.180	0.02	0.696	0.822
	LTE Band 12_UAT	10M	QPSK	1	49	Right Tilted	reduced power level 1	23095	707.5	20.28	21.00	1.180	-0.15	0.135	0.159
	LTE Band 12_UAT	10M	QPSK	1	49	Left Cheek	reduced power level 1	23095	707.5	20.28	21.00	1.180	0.06	0.867	1.023
	LTE Band 12_UAT	10M	QPSK	1	49	Left Tilted	reduced power level 1	23095	707.5	20.28	21.00	1.180	0.02	0.152	0.179
	LTE Band 12_UAT	10M	QPSK	25	25	Right Cheek	reduced power level 1	23095	707.5	20.27	21.00	1.183	-0.17	0.705	0.834
	LTE Band 12_UAT	10M	QPSK	25	25	Right Tilted	reduced power level 1	23095	707.5	20.27	21.00	1.183	0.03	0.140	0.166
10	LTE Band 12_UAT	10M	QPSK	25	25	Left Cheek	reduced power level 1	23095	707.5	20.27	21.00	1.183	-0.03	0.876	1.036
	LTE Band 12_UAT	10M	QPSK	25	25	Left Tilted	reduced power level 1	23095	707.5	20.27	21.00	1.183	-0.16	0.156	0.185
	LTE Band 12_UAT	10M	QPSK	50	0	Right Cheek	reduced power level 1	23095	707.5	20.23	21.00	1.194	-0.11	0.691	0.825
	LTE Band 12_UAT	10M	QPSK	50	0	Left Cheek	reduced power level 1	23095	707.5	20.23	21.00	1.194	0.02	0.844	1.008
	LTE Band 12_UAT	10M	QPSK	1	49	Right Cheek	reduced power level 2	23095	707.5	18.16	19.10	1.242	0.06	0.418	0.519
	LTE Band 12_UAT	10M	QPSK	1	49	Right Tilted	reduced power level 2	23095	707.5	18.16	19.10	1.242	0.01	0.089	0.111
	LTE Band 12_UAT	10M	QPSK	1	49	Left Cheek	reduced power level 2	23095	707.5	18.16	19.10	1.242	-0.05	0.552	0.685
	LTE Band 12_UAT	10M	QPSK	1	49	Left Tilted	reduced power level 2	23095	707.5	18.16	19.10	1.242	0.03	0.093	0.115
	LTE Band 12_UAT	10M	QPSK	25	25	Right Cheek	reduced power level 2	23095	707.5	18.07	19.10	1.268	-0.07	0.422	0.535
	LTE Band 12_UAT	10M	QPSK	25	25	Right Tilted	reduced power level 2	23095	707.5	18.07	19.10	1.268	-0.14	0.091	0.115
	LTE Band 12_UAT	10M	QPSK	25	25	Left Cheek	reduced power level 2	23095	707.5	18.07	19.10	1.268	0.05	0.564	0.715
	LTE Band 12_UAT	10M	QPSK	25	25	Left Tilted	reduced power level 2	23095	707.5	18.07	19.10	1.268	-0.06	0.095	0.120
	LTE Band 12_UAT	10M	QPSK	1	49	Right Cheek	reduced power level 3/4	23095	707.5	16.79	17.60	1.205	0.01	0.304	0.366
	LTE Band 12_UAT	10M	QPSK	1	49	Right Tilted	reduced power level 3/4	23095	707.5	16.79	17.60	1.205	0.05	0.062	0.075
	LTE Band 12_UAT	10M	QPSK	1	49	Left Cheek	reduced power level 3/4	23095	707.5	16.79	17.60	1.205	-0.03	0.402	0.484
	LTE Band 12_UAT	10M	QPSK	1	49	Left Tilted	reduced power level 3/4	23095	707.5	16.79	17.60	1.205	0.04	0.069	0.083
	LTE Band 12_UAT	10M	QPSK	25	25	Right Cheek	reduced power level 3/4	23095	707.5	16.73	17.60	1.222	-0.09	0.311	0.380
	LTE Band 12_UAT	10M	QPSK	25	25	Right Tilted	reduced power level 3/4	23095	707.5	16.73	17.60	1.222	0.04	0.066	0.081
	LTE Band 12_UAT	10M	QPSK	25	25	Left Cheek	reduced power level 3/4	23095	707.5	16.73	17.60	1.222	-0.13	0.404	0.494
	LTE Band 12_UAT	10M	QPSK	25	25	Left Tilted	reduced power level 3/4	23095	707.5	16.73	17.60	1.222	0.04	0.077	0.094
	LTE Band 12_LAT	10M	QPSK	1	49	Right Cheek	Full	23095	707.5	22.63	23.80	1.309	0.06	0.132	0.173
	LTE Band 12_LAT	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	22.63	23.80	1.309	0.02	0.072	0.095
	LTE Band 12_LAT	10M	QPSK	1	49	Left Cheek	Full	23095	707.5	22.63	23.80	1.309	0.02	0.173	0.226
	LTE Band 12_LAT	10M	QPSK	1	49	Left Tilted	Full	23095	707.5	22.63	23.80	1.309	-0.03	0.089	0.116
	LTE Band 12_LAT	10M	QPSK	25	25	Right Cheek	Full	23095	707.5	21.75	22.80	1.274	-0.08	0.106	0.135
	LTE Band 12_LAT	10M	QPSK	25	25	Right Tilted	Full	23095	707.5	21.75	22.80	1.274	0.04	0.057	0.073
	LTE Band 12_LAT	10M	QPSK	25	25	Left Cheek	Full	23095	707.5	21.75	22.80	1.274	-0.02	0.141	0.180
	LTE Band 12_LAT	10M	QPSK	25	25	Left Tilted	Full	23095	707.5	21.75	22.80	1.274	-0.11	0.070	0.089





Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_UAT	10M	QPSK	1	25	Right Cheek	reduced power level 1	23230	782	20.35	21.70	1.365	0.07	0.509	0.695
	LTE Band 13_UAT	10M	QPSK	1	25	Right Tilted	reduced power level 1	23230	782	20.35	21.70	1.365	0.01	0.102	0.139
	LTE Band 13_UAT	10M	QPSK	1	25	Left Cheek	reduced power level 1	23230	782	20.35	21.70	1.365	-0.08	0.687	0.937
	LTE Band 13_UAT	10M	QPSK	1	25	Left Tilted	reduced power level 1	23230	782	20.35	21.70	1.365	0.05	0.115	0.157
	LTE Band 13_UAT	10M	QPSK	25	25	Right Cheek	reduced power level 1	23230	782	20.34	21.70	1.368	-0.04	0.512	0.700
	LTE Band 13_UAT	10M	QPSK	25	25	Right Tilted	reduced power level 1	23230	782	20.34	21.70	1.368	0.05	0.104	0.142
11	LTE Band 13_UAT	10M	QPSK	25	25	Left Cheek	reduced power level 1	23230	782	20.34	21.70	1.368	0.07	0.699	0.956
	LTE Band 13_UAT	10M	QPSK	25	25	Left Tilted	reduced power level 1	23230	782	20.34	21.70	1.368	0.07	0.117	0.160
	LTE Band 13_UAT	10M	QPSK	50	0	Left Cheek	reduced power level 1	23230	782	20.31	21.70	1.377	0.12	0.645	0.888
	LTE Band 13_UAT	10M	QPSK	1	25	Right Cheek	reduced power level 2	23230	782	19.45	20.90	1.396	0.05	0.430	0.600
	LTE Band 13_UAT	10M	QPSK	1	25	Right Tilted	reduced power level 2	23230	782	19.45	20.90	1.396	-0.19	0.087	0.121
	LTE Band 13_UAT	10M	QPSK	1	25	Left Cheek	reduced power level 2	23230	782	19.45	20.90	1.396	-0.05	0.573	0.800
	LTE Band 13_UAT	10M	QPSK	1	25	Left Tilted	reduced power level 2	23230	782	19.45	20.90	1.396	-0.1	0.096	0.134
	LTE Band 13_UAT	10M	QPSK	25	25	Right Cheek	reduced power level 2	23230	782	19.41	20.90	1.409	0.03	0.435	0.613
	LTE Band 13_UAT	10M	QPSK	25	25	Right Tilted	reduced power level 2	23230	782	19.41	20.90	1.409	-0.15	0.089	0.125
	LTE Band 13_UAT	10M	QPSK	25	25	Left Cheek	reduced power level 2	23230	782	19.41	20.90	1.409	0.12	0.587	0.827
	LTE Band 13_UAT	10M	QPSK	25	25	Left Tilted	reduced power level 2	23230	782	19.41	20.90	1.409	0.05	0.098	0.138
	LTE Band 13_UAT	10M	QPSK	50	0	Left Cheek	reduced power level 2	23230	782	19.38	20.90	1.419	0.05	0.581	0.824
	LTE Band 13_UAT	10M	QPSK	1	25	Right Cheek	reduced power level 3/4	23230	782	17.61	18.30	1.172	0.04	0.241	0.282
	LTE Band 13_UAT	10M	QPSK	1	25	Right Tilted	reduced power level 3/4	23230	782	17.61	18.30	1.172	0.02	0.050	0.059
	LTE Band 13_UAT	10M	QPSK	1	25	Left Cheek	reduced power level 3/4	23230	782	17.61	18.30	1.172	0.09	0.330	0.387
	LTE Band 13_UAT	10M	QPSK	1	25	Left Tilted	reduced power level 3/4	23230	782	17.61	18.30	1.172	0.04	0.056	0.066
	LTE Band 13_UAT	10M	QPSK	25	25	Right Cheek	reduced power level 3/4	23230	782	17.54	18.30	1.191	0.09	0.245	0.292
	LTE Band 13_UAT	10M	QPSK	25	25	Right Tilted	reduced power level 3/4	23230	782	17.54	18.30	1.191	-0.15	0.052	0.062
	LTE Band 13_UAT	10M	QPSK	25	25	Left Cheek	reduced power level 3/4	23230	782	17.54	18.30	1.191	-0.05	0.334	0.398
	LTE Band 13_UAT	10M	QPSK	25	25	Left Tilted	reduced power level 3/4	23230	782	17.54	18.30	1.191	0.17	0.057	0.068
	LTE Band 13_LAT	10M	QPSK	1	25	Right Cheek	Full	23230	782	22.58	23.80	1.324	0.08	0.114	0.151
	LTE Band 13_LAT	10M	QPSK	1	25	Right Tilted	Full	23230	782	22.58	23.80	1.324	0.12	0.073	0.097
	LTE Band 13_LAT	10M	QPSK	1	25	Left Cheek	Full	23230	782	22.58	23.80	1.324	0.14	0.121	0.160
	LTE Band 13_LAT	10M	QPSK	1	25	Left Tilted	Full	23230	782	22.58	23.80	1.324	-0.09	0.066	0.088
	LTE Band 13_LAT	10M	QPSK	25	25	Right Cheek	Full	23230	782	21.74	22.80	1.276	0.06	0.091	0.116
	LTE Band 13_LAT	10M	QPSK	25	25	Right Tilted	Full	23230	782	21.74	22.80	1.276	0.07	0.060	0.077
	LTE Band 13_LAT	10M	QPSK	25	25	Left Cheek	Full	23230	782	21.74	22.80	1.276	0.17	0.111	0.142
	LTE Band 13_LAT	10M	QPSK	25	25	Left Tilted	Full	23230	782	21.74	22.80	1.276	-0.03	0.054	0.069



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 5_UAT	10M	QPSK	1	0	Right Cheek	reduced power level 1	20525	836.5	19.98	21.30	1.355	-0.05	0.474	0.642
	LTE Band 5_UAT	10M	QPSK	1	0	Right Tilted	reduced power level 1	20525	836.5	19.98	21.30	1.355	-0.02	0.095	0.129
12	LTE Band 5_UAT	10M	QPSK	1	0	Left Cheek	reduced power level 1	20525	836.5	19.98	21.30	1.355	-0.05	0.673	0.912
	LTE Band 5_UAT	10M	QPSK	1	0	Left Tilted	reduced power level 1	20525	836.5	19.98	21.30	1.355	0.14	0.105	0.142
	LTE Band 5_UAT	10M	QPSK	25	12	Right Cheek	reduced power level 1	20525	836.5	19.96	21.30	1.361	0.08	0.459	0.625
	LTE Band 5_UAT	10M	QPSK	25	12	Right Tilted	reduced power level 1	20525	836.5	19.96	21.30	1.361	0.03	0.091	0.124
	LTE Band 5_UAT	10M	QPSK	25	12	Left Cheek	reduced power level 1	20525	836.5	19.96	21.30	1.361	0.09	0.634	0.863
	LTE Band 5_UAT	10M	QPSK	25	12	Left Tilted	reduced power level 1	20525	836.5	19.96	21.30	1.361	-0.04	0.101	0.138
	LTE Band 5_UAT	10M	QPSK	50	0	Left Cheek	reduced power level 1	20525	836.5	19.95	21.30	1.365	0.11	0.659	0.899
	LTE Band 5_UAT	10M	QPSK	1	0	Right Cheek	reduced power level 2	20525	836.5	19.29	20.40	1.291	0	0.394	0.509
	LTE Band 5_UAT	10M	QPSK	1	0	Right Tilted	reduced power level 2	20525	836.5	19.29	20.40	1.291	0.09	0.078	0.101
	LTE Band 5_UAT	10M	QPSK	1	0	Left Cheek	reduced power level 2	20525	836.5	19.29	20.40	1.291	0.05	0.553	0.714
	LTE Band 5_UAT	10M	QPSK	1	0	Left Tilted	reduced power level 2	20525	836.5	19.29	20.40	1.291	-0.1	0.085	0.110
	LTE Band 5_UAT	10M	QPSK	25	12	Right Cheek	reduced power level 2	20525	836.5	19.27	20.40	1.297	0.04	0.387	0.502
	LTE Band 5_UAT	10M	QPSK	25	12	Right Tilted	reduced power level 2	20525	836.5	19.27	20.40	1.297	0.09	0.073	0.095
	LTE Band 5_UAT	10M	QPSK	25	12	Left Cheek	reduced power level 2	20525	836.5	19.27	20.40	1.297	0.04	0.543	0.704
	LTE Band 5_UAT	10M	QPSK	25	12	Left Tilted	reduced power level 2	20525	836.5	19.27	20.40	1.297	-0.07	0.081	0.105
	LTE Band 5_UAT	10M	QPSK	1	0	Right Cheek	reduced power level 3/4	20525	836.5	16.71	17.90	1.315	0.02	0.235	0.309
	LTE Band 5_UAT	10M	QPSK	1	0	Right Tilted	reduced power level 3/4	20525	836.5	16.71	17.90	1.315	0.07	0.044	0.058
	LTE Band 5_UAT	10M	QPSK	1	0	Left Cheek	reduced power level 3/4	20525	836.5	16.71	17.90	1.315	-0.09	0.334	0.439
	LTE Band 5_UAT	10M	QPSK	1	0	Left Tilted	reduced power level 3/4	20525	836.5	16.71	17.90	1.315	0.05	0.049	0.064
	LTE Band 5_UAT	10M	QPSK	25	12	Right Cheek	reduced power level 3/4	20525	836.5	16.70	17.90	1.318	-0.05	0.233	0.307
	LTE Band 5_UAT	10M	QPSK	25	12	Right Tilted	reduced power level 3/4	20525	836.5	16.70	17.90	1.318	0.04	0.042	0.055
	LTE Band 5_UAT	10M	QPSK	25	12	Left Cheek	reduced power level 3/4	20525	836.5	16.70	17.90	1.318	-0.16	0.330	0.435
	LTE Band 5_UAT	10M	QPSK	25	12	Left Tilted	reduced power level 3/4	20525	836.5	16.70	17.90	1.318	0.19	0.045	0.059
	LTE Band 5_LAT	10M	QPSK	1	0	Right Cheek	Full	20525	836.5	22.33	23.80	1.403	0.02	0.120	0.168
	LTE Band 5_LAT	10M	QPSK	1	0	Right Tilted	Full	20525	836.5	22.33	23.80	1.403	-0.04	0.078	0.109
	LTE Band 5_LAT	10M	QPSK	1	0	Left Cheek	Full	20525	836.5	22.33	23.80	1.403	-0.11	0.152	0.213
	LTE Band 5_LAT	10M	QPSK	1	0	Left Tilted	Full	20525	836.5	22.33	23.80	1.403	0.09	0.078	0.109
	LTE Band 5_LAT	10M	QPSK	25	12	Right Cheek	Full	20525	836.5	21.49	22.80	1.352	0.01	0.098	0.133
	LTE Band 5_LAT	10M	QPSK	25	12	Right Tilted	Full	20525	836.5	21.49	22.80	1.352	0.05	0.061	0.082
	LTE Band 5_LAT	10M	QPSK	25	12	Left Cheek	Full	20525	836.5	21.49	22.80	1.352	-0.03	0.146	0.197
	LTE Band 5_LAT	10M	QPSK	25	12	Left Tilted	Full	20525	836.5	21.49	22.80	1.352	0.08	0.061	0.082



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	reduced power level 1	26965	841.5	19.65	20.90	1.334	-0.09	0.557	0.743
	LTE Band 26_UAT	15M	QPSK	1	0	Right Tilted	reduced power level 1	26965	841.5	19.65	20.90	1.334	0.04	0.102	0.136
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	reduced power level 1	26965	841.5	19.65	20.90	1.334	-0.05	0.734	0.979
	LTE Band 26_UAT	15M	QPSK	1	0	Left Tilted	reduced power level 1	26965	841.5	19.65	20.90	1.334	0.01	0.106	0.141
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	reduced power level 1	26765	821.5	19.60	20.90	1.349	0.03	0.756	1.020
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	reduced power level 1	26865	831.5	19.60	20.90	1.349	0.17	0.760	1.025
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	reduced power level 1	26965	841.5	19.63	20.90	1.340	0.04	0.555	0.744
	LTE Band 26_UAT	15M	QPSK	36	20	Right Tilted	reduced power level 1	26965	841.5	19.63	20.90	1.340	0.07	0.101	0.135
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 1	26965	841.5	19.63	20.90	1.340	-0.01	0.730	0.978
	LTE Band 26_UAT	15M	QPSK	36	20	Left Tilted	reduced power level 1	26965	841.5	19.63	20.90	1.340	0.1	0.104	0.139
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 1	26765	821.5	19.59	20.90	1.352	0.06	0.753	1.018
13	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 1	26865	831.5	19.57	20.90	1.358	-0.04	0.755	<b>1.026</b>
	LTE Band 26_UAT	15M	QPSK	75	0	Left Cheek	reduced power level 1	26965	841.5	19.60	20.90	1.349	0.01	0.670	0.904
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	reduced power level 2	26965	841.5	19.15	20.10	1.245	0.08	0.474	0.590
	LTE Band 26_UAT	15M	QPSK	1	0	Right Tilted	reduced power level 2	26965	841.5	19.15	20.10	1.245	0.03	0.085	0.106
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	reduced power level 2	26965	841.5	19.15	20.10	1.245	0.01	0.621	0.773
	LTE Band 26_UAT	15M	QPSK	1	0	Left Tilted	reduced power level 2	26965	841.5	19.15	20.10	1.245	0.03	0.092	0.114
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	reduced power level 2	26965	841.5	19.07	20.10	1.268	-0.06	0.477	0.605
	LTE Band 26_UAT	15M	QPSK	36	20	Right Tilted	reduced power level 2	26965	841.5	19.07	20.10	1.268	0.05	0.089	0.113
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 2	26965	841.5	19.07	20.10	1.268	0.01	0.624	0.791
	LTE Band 26_UAT	15M	QPSK	36	20	Left Tilted	reduced power level 2	26965	841.5	19.07	20.10	1.268	0.08	0.098	0.124
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 2	26765	821.5	19.05	20.10	1.274	-0.05	0.641	0.816
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 2	26865	831.5	19.06	20.10	1.271	0.16	0.637	0.809
	LTE Band 26_UAT	15M	QPSK	75	0	Left Cheek	reduced power level 2	26965	841.5	19.06	20.10	1.271	-0.16	0.624	0.793
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	reduced power level 3/4	26965	841.5	16.41	17.50	1.285	0.18	0.263	0.338
	LTE Band 26_UAT	15M	QPSK	1	0	Right Tilted	reduced power level 3/4	26965	841.5	16.41	17.50	1.285	-0.05	0.045	0.058
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	reduced power level 3/4	26965	841.5	16.41	17.50	1.285	0.07	0.338	0.434
	LTE Band 26_UAT	15M	QPSK	1	0	Left Tilted	reduced power level 3/4	26965	841.5	16.41	17.50	1.285	-0.12	0.052	0.067
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	reduced power level 3/4	26965	841.5	16.38	17.50	1.294	0.05	0.266	0.344
	LTE Band 26_UAT	15M	QPSK	36	20	Right Tilted	reduced power level 3/4	26965	841.5	16.38	17.50	1.294	0.12	0.048	0.062
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 3/4	26965	841.5	16.38	17.50	1.294	0.11	0.347	0.449
	LTE Band 26_UAT	15M	QPSK	36	20	Left Tilted	reduced power level 3/4	26965	841.5	16.38	17.50	1.294	0.1	0.056	0.072
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 3/4	26765	821.5	16.36	17.50	1.300	-0.07	0.361	0.469
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	reduced power level 3/4	26865	831.5	16.25	17.50	1.334	-0.02	0.350	0.467
	LTE Band 26_LAT	15M	QPSK	1	0	Right Cheek	Full	26965	841.5	22.33	23.80	1.403	-0.05	0.135	0.189
	LTE Band 26_LAT	15M	QPSK	1	0	Right Tilted	Full	26965	841.5	22.33	23.80	1.403	0.08	0.085	0.119
	LTE Band 26_LAT	15M	QPSK	1	0	Left Cheek	Full	26965	841.5	22.33	23.80	1.403	0.01	0.202	0.283
	LTE Band 26_LAT	15M	QPSK	1	0	Left Tilted	Full	26965	841.5	22.33	23.80	1.403	0.16	0.085	0.119
	LTE Band 26_LAT	15M	QPSK	1	0	Left Cheek	Full	26765	821.5	22.29	23.80	1.416	0.06	0.147	0.208
	LTE Band 26_LAT	15M	QPSK	1	0	Left Cheek	Full	26865	831.5	22.28	23.80	1.419	0.07	0.174	0.247
	LTE Band 26_LAT	15M	QPSK	36	20	Right Cheek	Full	26965	841.5	21.51	22.80	1.346	0.09	0.109	0.147
	LTE Band 26_LAT	15M	QPSK	36	20	Right Tilted	Full	26965	841.5	21.51	22.80	1.346	0.07	0.065	0.088
	LTE Band 26_LAT	15M	QPSK	36	20	Left Cheek	Full	26965	841.5	21.51	22.80	1.346	0.06	0.157	0.211
	LTE Band 26_LAT	15M	QPSK	36	20	Left Tilted	Full	26965	841.5	21.51	22.80	1.346	0.14	0.065	0.088



# FCC SAR TEST REPORT

Report No. : FA061509-03

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 1	132322	1745	15.67	16.70	1.268	0.17	0.515	0.653
	LTE Band 66_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 1	132322	1745	15.67	16.70	1.268	-0.16	0.607	0.769
	LTE Band 66_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 1	132322	1745	15.67	16.70	1.268	-0.09	0.288	0.365
	LTE Band 66_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 1	132322	1745	15.67	16.70	1.268	0.06	0.353	0.447
	LTE Band 66_UAT	20M	QPSK	50	0	Right Cheek	reduced power level 1	132322	1745	15.63	16.70	1.279	-0.06	0.530	0.678
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 1	132322	1745	15.63	16.70	1.279	0.18	0.617	0.789
	LTE Band 66_UAT	20M	QPSK	50	0	Left Cheek	reduced power level 1	132322	1745	15.63	16.70	1.279	-0.01	0.292	0.374
	LTE Band 66_UAT	20M	QPSK	50	0	Left Tilted	reduced power level 1	132322	1745	15.63	16.70	1.279	-0.07	0.364	0.466
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 1	132072	1720	15.62	16.70	1.282	-0.04	0.577	0.740
14	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 1	132572	1770	15.59	16.70	1.291	-0.08	0.705	0.910
	LTE Band 66_UAT	20M	QPSK	100	0	Right Tilted	reduced power level 1	132322	1745	15.61	16.70	1.285	-0.11	0.608	0.781
	LTE Band 66_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 2	132322	1745	15.05	15.90	1.216	-0.1	0.423	0.514
	LTE Band 66_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 2	132322	1745	15.05	15.90	1.216	-0.06	0.505	0.614
	LTE Band 66_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 2	132322	1745	15.05	15.90	1.216	0.18	0.235	0.286
	LTE Band 66_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 2	132322	1745	15.05	15.90	1.216	-0.02	0.297	0.361
	LTE Band 66_UAT	20M	QPSK	50	0	Right Cheek	reduced power level 2	132322	1745	15.04	15.90	1.219	-0.17	0.433	0.528
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 2	132322	1745	15.04	15.90	1.219	0.09	0.517	0.630
	LTE Band 66_UAT	20M	QPSK	50	0	Left Cheek	reduced power level 2	132322	1745	15.04	15.90	1.219	-0.11	0.244	0.297
	LTE Band 66_UAT	20M	QPSK	50	0	Left Tilted	reduced power level 2	132322	1745	15.04	15.90	1.219	0.11	0.307	0.374
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 2	132072	1720	14.92	15.90	1.253	0.01	0.475	0.595
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 2	132572	1770	15.02	15.90	1.225	-0.12	0.553	0.677
	LTE Band 66_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 3/4	132322	1745	12.46	13.30	1.213	-0.15	0.240	0.291
	LTE Band 66_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 3/4	132322	1745	12.46	13.30	1.213	0.04	0.275	0.334
	LTE Band 66_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 3/4	132322	1745	12.46	13.30	1.213	0.17	0.135	0.164
	LTE Band 66_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 3/4	132322	1745	12.46	13.30	1.213	-0.06	0.165	0.200
	LTE Band 66_UAT	20M	QPSK	50	0	Right Cheek	reduced power level 3/4	132322	1745	12.42	13.30	1.225	0.04	0.246	0.301
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 3/4	132322	1745	12.42	13.30	1.225	-0.15	0.286	0.350
	LTE Band 66_UAT	20M	QPSK	50	0	Left Cheek	reduced power level 3/4	132322	1745	12.42	13.30	1.225	0.18	0.134	0.164
	LTE Band 66_UAT	20M	QPSK	50	0	Left Tilted	reduced power level 3/4	132322	1745	12.42	13.30	1.225	0.11	0.169	0.207
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 3/4	132072	1720	12.36	13.30	1.242	-0.07	0.268	0.333
	LTE Band 66_UAT	20M	QPSK	50	0	Right Tilted	reduced power level 3/4	132572	1770	12.30	13.30	1.259	0.01	0.295	0.371
	LTE Band 66_LAT	20M	QPSK	1	0	Right Cheek	Full	132322	1745	22.55	23.80	1.334	0	0.116	0.155
	LTE Band 66_LAT	20M	QPSK	1	0	Right Tilted	Full	132322	1745	22.55	23.80	1.334	0.09	0.097	0.129
	LTE Band 66_LAT	20M	QPSK	1	0	Left Cheek	Full	132322	1745	22.55	23.80	1.334	-0.19	0.244	0.325
	LTE Band 66_LAT	20M	QPSK	1	0	Left Tilted	Full	132322	1745	22.55	23.80	1.334	-0.1	0.085	0.113
	LTE Band 66_LAT	20M	QPSK	1	0	Left Cheek	Full	132072	1720	22.35	23.80	1.396	0.17	0.233	0.325
	LTE Band 66_LAT	20M	QPSK	1	0	Left Cheek	Full	132572	1770	22.44	23.80	1.368	0.09	0.262	0.358
	LTE CA_66C_LAT	20M	QPSK	1	0	Left Cheek	Full	132322(PCC)+132124(SCC)	1745(PCC)+1725.2(SCC)	22.34	22.80	1.112	-0.04	0.218	0.242
	LTE CA_66C_LAT	20M	QPSK	1	0	Left Cheek	Full	132072(PCC)+132270(SCC)	1720(PCC)+1739.8(SCC)	22.25	22.80	1.135	0.09	0.262	0.297
	LTE CA_66C_LAT	20M	QPSK	1	0	Left Cheek	Full	132572(PCC)+132374(SCC)	1770(PCC)+1750.2(SCC)	22.24	22.80	1.138	-0.04	0.237	0.270
	LTE Band 66_LAT	20M	QPSK	50	0	Right Cheek	Full	132322	1745	21.56	22.80	1.330	0.08	0.093	0.124
	LTE Band 66_LAT	20M	QPSK	50	0	Right Tilted	Full	132322	1745	21.56	22.80	1.330	-0.13	0.078	0.104
	LTE Band 66_LAT	20M	QPSK	50	0	Left Cheek	Full	132322	1745	21.56	22.80	1.330	-0.01	0.201	0.267
	LTE Band 66_LAT	20M	QPSK	50	0	Left Tilted	Full	132322	1745	21.56	22.80	1.330	0.04	0.065	0.087
EN-DC															
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Cheek	reduced power level 1/2/3/4	132322	1745	19.07	19.80	1.183	0.05	0.510	0.603
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Tilted	reduced power level 1/2/3/4	132322	1745	19.07	19.80	1.183	0.02	0.147	0.174
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Cheek	reduced power level 1/2/3/4	132322	1745	19.07	19.80	1.183	-0.01	0.175	0.207
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Tilted	reduced power level 1/2/3/4	132322	1745	19.07	19.80	1.183	0.09	0.072	0.085
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Cheek	reduced power level 1/2/3/4	132072	1720	18.87	19.80	1.239	0.13	0.377	0.467
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Cheek	reduced power level 1/2/3/4	132572	1770	18.88	19.80	1.236	0.01	0.653	0.807
	LTE Band 66_Ant0	20M	QPSK	50	0	Right Cheek	reduced power level 1/2/3/4	132322	1745	19.02	19.80	1.197	0.17	0.434	0.519
	LTE Band 66_Ant0	20M	QPSK	50	0	Right Tilted	reduced power level 1/2/3/4	132322	1745	19.02	19.80	1.197	0.02	0.122	0.146



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Report No. : FA061509-03

LTE Band 66_Ant0	20M	QPSK	50	0	Left Cheek	reduced power level 1/2/3/4	132322	1745	19.02	19.80	1.197	-0.02	0.150	0.180
LTE Band 66_Ant0	20M	QPSK	50	0	Left Tilted	reduced power level 1/2/3/4	132322	1745	19.02	19.80	1.197	0.07	0.061	0.073
LTE Band 66_Ant0	20M	QPSK	100	0	Right Cheek	reduced power level 1/2/3/4	132322	1745	18.96	19.80	1.213	0.11	0.410	0.497



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 1	26340	1880	16.16	17.00	1.213	0.13	0.694	0.842
	LTE Band 25_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 1	26340	1880	16.16	17.00	1.213	-0.07	0.764	0.927
	LTE Band 25_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 1	26340	1880	16.16	17.00	1.213	-0.07	0.407	0.494
	LTE Band 25_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 1	26340	1880	16.16	17.00	1.213	0.09	0.483	0.586
	LTE Band 25_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 1	26140	1860	16.13	17.00	1.222	0.12	0.590	0.721
	LTE Band 25_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 1	26590	1905	16.12	17.00	1.225	-0.02	0.596	0.730
	LTE Band 25_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 1	26140	1860	16.13	17.00	1.222	0.12	0.754	0.921
	LTE Band 25_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 1	26590	1905	16.12	17.00	1.225	-0.13	0.803	0.983
	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 1	26340	1880	16.13	17.00	1.222	-0.11	0.704	0.860
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 1	26340	1880	16.13	17.00	1.222	0.19	0.778	0.951
	LTE Band 25_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 1	26340	1880	16.13	17.00	1.222	0.01	0.417	0.509
	LTE Band 25_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 1	26340	1880	16.13	17.00	1.222	0.07	0.495	0.605
	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 1	26140	1860	16.09	17.00	1.233	-0.07	0.598	0.737
	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 1	26590	1905	16.10	17.00	1.230	0.1	0.606	0.746
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 1	26140	1860	16.09	17.00	1.233	-0.05	0.769	0.948
15	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 1	26590	1905	16.10	17.00	1.230	-0.01	0.818	1.006
	LTE Band 25_UAT	20M	QPSK	100	0	Right Cheek	reduced power level 1	26340	1880	16.11	17.00	1.227	-0.16	0.602	0.739
	LTE Band 25_UAT	20M	QPSK	100	0	Right Tilted	reduced power level 1	26340	1880	16.11	17.00	1.227	-0.09	0.695	0.853
	LTE Band 25_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 2	26340	1880	15.40	16.20	1.202	0.12	0.528	0.635
	LTE Band 25_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 2	26340	1880	15.40	16.20	1.202	-0.13	0.584	0.702
	LTE Band 25_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 2	26340	1880	15.40	16.20	1.202	-0.16	0.309	0.371
	LTE Band 25_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 2	26340	1880	15.40	16.20	1.202	0.11	0.370	0.445
	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 2	26340	1880	15.37	16.20	1.211	-0.1	0.535	0.648
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 2	26340	1880	15.37	16.20	1.211	-0.19	0.594	0.719
	LTE Band 25_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 2	26340	1880	15.37	16.20	1.211	-0.03	0.320	0.387
	LTE Band 25_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 2	26340	1880	15.37	16.20	1.211	0.16	0.382	0.462
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 2	26140	1860	15.35	16.20	1.216	0.13	0.588	0.715
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 2	26590	1905	15.31	16.20	1.227	-0.12	0.622	0.763
	LTE Band 25_UAT	20M	QPSK	1	0	Right Cheek	reduced power level 3/4	26340	1880	12.83	13.60	1.194	0.02	0.305	0.364
	LTE Band 25_UAT	20M	QPSK	1	0	Right Tilted	reduced power level 3/4	26340	1880	12.83	13.60	1.194	0.13	0.338	0.404
	LTE Band 25_UAT	20M	QPSK	1	0	Left Cheek	reduced power level 3/4	26340	1880	12.83	13.60	1.194	0.14	0.182	0.217
	LTE Band 25_UAT	20M	QPSK	1	0	Left Tilted	reduced power level 3/4	26340	1880	12.83	13.60	1.194	-0.16	0.216	0.258
	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 3/4	26340	1880	12.77	13.60	1.211	-0.06	0.311	0.376
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 3/4	26340	1880	12.77	13.60	1.211	0.14	0.347	0.420
	LTE Band 25_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 3/4	26340	1880	12.77	13.60	1.211	-0.05	0.189	0.229
	LTE Band 25_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 3/4	26340	1880	12.77	13.60	1.211	-0.14	0.220	0.266
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 3/4	26140	1860	12.66	13.60	1.242	0.08	0.335	0.416
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 3/4	26590	1905	12.53	13.60	1.279	-0.07	0.350	0.448
	LTE Band 25_LAT	20M	QPSK	1	0	Right Cheek	Full	26340	1880	22.47	23.80	1.358	0.17	0.204	0.277
	LTE Band 25_LAT	20M	QPSK	1	0	Right Tilted	Full	26340	1880	22.47	23.80	1.358	0.08	0.126	0.171
	LTE Band 25_LAT	20M	QPSK	1	0	Left Cheek	Full	26340	1880	22.47	23.80	1.358	-0.16	0.202	0.274
	LTE Band 25_LAT	20M	QPSK	1	0	Left Tilted	Full	26340	1880	22.47	23.80	1.358	-0.08	0.117	0.159
	LTE Band 25_LAT	20M	QPSK	1	0	Right Cheek	Full	26140	1860	22.42	23.80	1.374	-0.18	0.195	0.268
	LTE Band 25_LAT	20M	QPSK	1	0	Right Cheek	Full	26590	1905	22.41	23.80	1.377	0.17	0.209	0.288
	LTE Band 25_LAT	20M	QPSK	50	24	Right Cheek	Full	26340	1880	21.54	22.80	1.337	-0.01	0.150	0.200
	LTE Band 25_LAT	20M	QPSK	50	24	Right Tilted	Full	26340	1880	21.54	22.80	1.337	0.09	0.100	0.133
	LTE Band 25_LAT	20M	QPSK	50	24	Left Cheek	Full	26340	1880	21.54	22.80	1.337	-0.17	0.167	0.223
	LTE Band 25_LAT	20M	QPSK	50	24	Left Tilted	Full	26340	1880	21.54	22.80	1.337	0.03	0.117	0.156
EN-DC															
	LTE Band 2_Ant0	20M	QPSK	1	0	Right Cheek	reduced power level 1/2/3/4	18900	1880	19.03	19.80	1.194	0.08	0.624	0.745
	LTE Band 2_Ant0	20M	QPSK	1	0	Right Tilted	reduced power level 1/2/3/4	18900	1880	19.03	19.80	1.194	-0.02	0.159	0.190



**FCC SAR TEST REPORT**

**Report No. : FA061509-03**

LTE Band 2_Ant0	20M	QPSK	1	0	Left Cheek	reduced power level 1/2/3/4	18900	1880	19.03	19.80	1.194	0.06	0.199	0.238
LTE Band 2_Ant0	20M	QPSK	1	0	Left Tilted	reduced power level 1/2/3/4	18900	1880	19.03	19.80	1.194	-0.04	0.086	0.103
LTE Band 2_Ant0	20M	QPSK	1	0	Right Cheek	reduced power level 1/2/3/4	18700	1860	18.87	19.80	1.239	0.08	0.678	0.840
LTE Band 2_Ant0	20M	QPSK	1	0	Right Cheek	reduced power level 1/2/3/4	19100	1900	18.88	19.80	1.236	0.02	0.601	0.743
LTE Band 2_Ant0	20M	QPSK	50	0	Right Cheek	reduced power level 1/2/3/4	18900	1880	19.01	19.80	1.199	0.04	0.501	0.601
LTE Band 2_Ant0	20M	QPSK	50	0	Right Tilted	reduced power level 1/2/3/4	18900	1880	19.01	19.80	1.199	0.03	0.125	0.150
LTE Band 2_Ant0	20M	QPSK	50	0	Left Cheek	reduced power level 1/2/3/4	18900	1880	19.01	19.80	1.199	-0.05	0.159	0.191
LTE Band 2_Ant0	20M	QPSK	50	0	Left Tilted	reduced power level 1/2/3/4	18900	1880	19.01	19.80	1.199	0.01	0.066	0.079
LTE Band 2_Ant0	20M	QPSK	100	0	Right Cheek	reduced power level 1/2/3/4	18900	1880	18.98	19.80	1.208	0.14	0.498	0.601



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30_UAT	10M	QPSK	1	0	Right Cheek	reduced power level 1	27710	2310	15.99	17.30	1.352	-0.16	0.598	0.809
	LTE Band 30_UAT	10M	QPSK	1	0	Right Tilted	reduced power level 1	27710	2310	15.99	17.30	1.352	-0.08	0.740	1.001
	LTE Band 30_UAT	10M	QPSK	1	0	Left Cheek	reduced power level 1	27710	2310	15.99	17.30	1.352	0.15	0.329	0.445
	LTE Band 30_UAT	10M	QPSK	1	0	Left Tilted	reduced power level 1	27710	2310	15.99	17.30	1.352	-0.02	0.374	0.506
	LTE Band 30_UAT	10M	QPSK	25	12	Right Cheek	reduced power level 1	27710	2310	15.98	17.30	1.355	-0.13	0.602	0.816
16	LTE Band 30_UAT	10M	QPSK	25	12	Right Tilted	reduced power level 1	27710	2310	15.98	17.30	1.355	-0.06	0.743	1.007
	LTE Band 30_UAT	10M	QPSK	25	12	Left Cheek	reduced power level 1	27710	2310	15.98	17.30	1.355	0.13	0.337	0.457
	LTE Band 30_UAT	10M	QPSK	25	12	Left Tilted	reduced power level 1	27710	2310	15.98	17.30	1.355	0.01	0.388	0.526
	LTE Band 30_UAT	10M	QPSK	50	0	Right Cheek	reduced power level 1	27710	2310	15.94	17.30	1.368	-0.13	0.495	0.677
	LTE Band 30_UAT	10M	QPSK	50	0	Right Tilted	reduced power level 1	27710	2310	15.94	17.30	1.368	0.11	0.722	0.988
	LTE Band 30_UAT	10M	QPSK	1	0	Right Cheek	reduced power level 2	27710	2310	15.20	16.40	1.318	0.13	0.450	0.593
	LTE Band 30_UAT	10M	QPSK	1	0	Right Tilted	reduced power level 2	27710	2310	15.20	16.40	1.318	0.15	0.560	0.738
	LTE Band 30_UAT	10M	QPSK	1	0	Left Cheek	reduced power level 2	27710	2310	15.20	16.40	1.318	0.07	0.279	0.368
	LTE Band 30_UAT	10M	QPSK	1	0	Left Tilted	reduced power level 2	27710	2310	15.20	16.40	1.318	0.07	0.323	0.426
	LTE Band 30_UAT	10M	QPSK	25	12	Right Cheek	reduced power level 2	27710	2310	15.18	16.40	1.324	0.07	0.456	0.604
	LTE Band 30_UAT	10M	QPSK	25	12	Right Tilted	reduced power level 2	27710	2310	15.18	16.40	1.324	0.01	0.565	0.748
	LTE Band 30_UAT	10M	QPSK	25	12	Left Cheek	reduced power level 2	27710	2310	15.18	16.40	1.324	0.08	0.282	0.373
	LTE Band 30_UAT	10M	QPSK	25	12	Left Tilted	reduced power level 2	27710	2310	15.18	16.40	1.324	-0.05	0.333	0.441
	LTE Band 30_UAT	10M	QPSK	1	0	Right Cheek	reduced power level 3/4	27710	2310	12.95	13.90	1.245	0.16	0.245	0.305
	LTE Band 30_UAT	10M	QPSK	1	0	Right Tilted	reduced power level 3/4	27710	2310	12.95	13.90	1.245	-0.16	0.306	0.381
	LTE Band 30_UAT	10M	QPSK	1	0	Left Cheek	reduced power level 3/4	27710	2310	12.95	13.90	1.245	0.09	0.145	0.180
	LTE Band 30_UAT	10M	QPSK	1	0	Left Tilted	reduced power level 3/4	27710	2310	12.95	13.90	1.245	-0.12	0.173	0.215
	LTE Band 30_UAT	10M	QPSK	25	12	Right Cheek	reduced power level 3/4	27710	2310	12.93	13.90	1.250	-0.15	0.250	0.313
	LTE Band 30_UAT	10M	QPSK	25	12	Right Tilted	reduced power level 3/4	27710	2310	12.93	13.90	1.250	0.12	0.317	0.396
	LTE Band 30_UAT	10M	QPSK	25	12	Left Cheek	reduced power level 3/4	27710	2310	12.93	13.90	1.250	-0.16	0.152	0.190
	LTE Band 30_UAT	10M	QPSK	25	12	Left Tilted	reduced power level 3/4	27710	2310	12.93	13.90	1.250	-0.1	0.177	0.221
	LTE Band 30_LAT	10M	QPSK	1	0	Right Cheek	Full	27710	2310	22.41	23.80	1.377	-0.18	0.137	0.189
	LTE Band 30_LAT	10M	QPSK	1	0	Right Tilted	Full	27710	2310	22.41	23.80	1.377	-0.05	0.116	0.160
	LTE Band 30_LAT	10M	QPSK	1	0	Left Cheek	Full	27710	2310	22.41	23.80	1.377	-0.19	0.175	0.241
	LTE Band 30_LAT	10M	QPSK	1	0	Left Tilted	Full	27710	2310	22.41	23.80	1.377	-0.08	0.102	0.140
	LTE Band 30_LAT	10M	QPSK	25	12	Right Cheek	Full	27710	2310	21.48	22.80	1.355	0.16	0.107	0.145
	LTE Band 30_LAT	10M	QPSK	25	12	Right Tilted	Full	27710	2310	21.48	22.80	1.355	0.15	0.091	0.123
	LTE Band 30_LAT	10M	QPSK	25	12	Left Cheek	Full	27710	2310	21.48	22.80	1.355	0	0.133	0.180
	LTE Band 30_LAT	10M	QPSK	25	12	Left Tilted	Full	27710	2310	21.48	22.80	1.355	0.1	0.082	0.111





Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 7_UAT	20M	QPSK	1	99	Right Cheek	reduced power level 1	21350	2560	15.11	16.00	1.227	0.18	0.372	0.457
	LTE Band 7_UAT	20M	QPSK	1	99	Right Tilted	reduced power level 1	21350	2560	15.11	16.00	1.227	-0.19	0.422	0.518
	LTE Band 7_UAT	20M	QPSK	1	99	Left Cheek	reduced power level 1	21350	2560	15.11	16.00	1.227	0.1	0.179	0.220
	LTE Band 7_UAT	20M	QPSK	1	99	Left Tilted	reduced power level 1	21350	2560	15.11	16.00	1.227	0.04	0.216	0.265
	LTE Band 7_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 1	21350	2560	15.09	16.00	1.233	0.18	0.392	0.483
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 1	21350	2560	15.09	16.00	1.233	-0.03	0.445	0.549
	LTE Band 7_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 1	21350	2560	15.09	16.00	1.233	0.16	0.192	0.237
	LTE Band 7_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 1	21350	2560	15.09	16.00	1.233	-0.07	0.232	0.286
17	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 1	20850	2510	14.85	16.00	1.303	0.03	0.512	0.667
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 1	21100	2535	15.03	16.00	1.250	-0.13	0.460	0.575
	LTE Band 7_UAT	20M	QPSK	1	99	Right Cheek	reduced power level 2	21350	2560	14.14	15.10	1.247	-0.16	0.295	0.368
	LTE Band 7_UAT	20M	QPSK	1	99	Right Tilted	reduced power level 2	21350	2560	14.14	15.10	1.247	-0.11	0.421	0.525
	LTE Band 7_UAT	20M	QPSK	1	99	Left Cheek	reduced power level 2	21350	2560	14.14	15.10	1.247	0.07	0.147	0.183
	LTE Band 7_UAT	20M	QPSK	1	99	Left Tilted	reduced power level 2	21350	2560	14.14	15.10	1.247	0.09	0.174	0.217
	LTE Band 7_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 2	21350	2560	14.12	15.10	1.253	-0.01	0.307	0.385
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 2	21350	2560	14.12	15.10	1.253	-0.1	0.420	0.526
	LTE Band 7_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 2	21350	2560	14.12	15.10	1.253	0.04	0.152	0.190
	LTE Band 7_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 2	21350	2560	14.12	15.10	1.253	0.17	0.184	0.231
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 2	20850	2510	13.92	15.10	1.312	0.12	0.420	0.551
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 2	21100	2535	14.07	15.10	1.268	0.19	0.375	0.475
	LTE Band 7_UAT	20M	QPSK	1	99	Right Cheek	reduced power level 3/4	21350	2560	11.64	12.60	1.247	0.03	0.165	0.206
	LTE Band 7_UAT	20M	QPSK	1	99	Right Tilted	reduced power level 3/4	21350	2560	11.64	12.60	1.247	-0.05	0.220	0.274
	LTE Band 7_UAT	20M	QPSK	1	99	Left Cheek	reduced power level 3/4	21350	2560	11.64	12.60	1.247	-0.11	0.087	0.109
	LTE Band 7_UAT	20M	QPSK	1	99	Left Tilted	reduced power level 3/4	21350	2560	11.64	12.60	1.247	0.07	0.102	0.127
	LTE Band 7_UAT	20M	QPSK	50	24	Right Cheek	reduced power level 3/4	21350	2560	11.59	12.60	1.262	0	0.171	0.216
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 3/4	21350	2560	11.59	12.60	1.262	0.12	0.222	0.280
	LTE Band 7_UAT	20M	QPSK	50	24	Left Cheek	reduced power level 3/4	21350	2560	11.59	12.60	1.262	0.1	0.092	0.116
	LTE Band 7_UAT	20M	QPSK	50	24	Left Tilted	reduced power level 3/4	21350	2560	11.59	12.60	1.262	-0.1	0.104	0.131
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 3/4	20850	2510	11.35	12.60	1.334	-0.08	0.219	0.292
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	reduced power level 3/4	21100	2535	11.47	12.60	1.297	-0.09	0.196	0.254
	LTE Band 7_LAT	20M	QPSK	1	99	Right Cheek	Full	21350	2560	22.61	23.80	1.315	0.1	0.279	0.367
	LTE Band 7_LAT	20M	QPSK	1	99	Right Tilted	Full	21350	2560	22.61	23.80	1.315	-0.02	0.130	0.171
	LTE Band 7_LAT	20M	QPSK	1	99	Left Cheek	Full	21350	2560	22.61	23.80	1.315	0.18	0.279	0.367
	LTE Band 7_LAT	20M	QPSK	1	99	Left Tilted	Full	21350	2560	22.61	23.80	1.315	-0.17	0.233	0.306
	LTE Band 7_LAT	20M	QPSK	1	99	Right Cheek	Full	20850	2510	22.33	23.80	1.403	0.06	0.259	0.363
	LTE Band 7_LAT	20M	QPSK	1	99	Right Cheek	Full	21100	2535	22.53	23.80	1.340	-0.01	0.314	0.421
	LTE Band 7_LAT	20M	QPSK	50	24	Right Cheek	Full	21350	2560	21.67	22.80	1.297	0.05	0.236	0.306
	LTE Band 7_LAT	20M	QPSK	50	24	Right Tilted	Full	21350	2560	21.67	22.80	1.297	-0.15	0.106	0.138
	LTE Band 7_LAT	20M	QPSK	50	24	Left Cheek	Full	21350	2560	21.67	22.80	1.297	-0.12	0.215	0.279
	LTE Band 7_LAT	20M	QPSK	50	24	Left Tilted	Full	21350	2560	21.67	22.80	1.297	0.06	0.201	0.261



<TDD LTE SAR>

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Test Position, Power Reduction, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Duty Cycle %, Duty Cycle Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). The table contains multiple rows of test data for various LTE bands and configurations.



FCC SAR TEST REPORT

Report No. : FA061509-03

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB Offset, Test Position, Power Reduction, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Duty Cycle %, Duty Cycle Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg)





<5G NR SA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	reduced power level 1	136100	680.5	20.83	22.00	1.309	0.03	0.676	0.885
	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1	136100	680.5	20.83	22.00	1.309	0.07	0.174	0.228
21	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	reduced power level 1	136100	680.5	20.83	22.00	1.309	-0.06	0.689	0.902
	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	reduced power level 1	136100	680.5	20.83	22.00	1.309	-0.18	0.124	0.162
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	reduced power level 1	136100	680.5	20.82	22.00	1.312	-0.02	0.650	0.853
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 1	136100	680.5	20.82	22.00	1.312	0.04	0.167	0.219
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	reduced power level 1	136100	680.5	20.82	22.00	1.312	-0.18	0.647	0.849
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	reduced power level 1	136100	680.5	20.82	22.00	1.312	-0.04	0.117	0.154
	SA N71_Ant0	20M	PI/2 BPSK	100	0	DFT-15	Right Cheek	reduced power level 1	136100	680.5	20.80	22.00	1.318	0.06	0.681	0.898
	SA N71_Ant0	20M	PI/2 BPSK	100	0	DFT-15	Left Cheek	reduced power level 1	136100	680.5	20.80	22.00	1.318	0.03	0.682	0.899
	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	reduced power level 2/3/4	136100	680.5	17.72	18.70	1.253	0.01	0.338	0.424
	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 2/3/4	136100	680.5	17.72	18.70	1.253	-0.04	0.074	0.092
	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	reduced power level 2/3/4	136100	680.5	17.72	18.70	1.253	0.07	0.376	0.471
	SA N71_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	reduced power level 2/3/4	136100	680.5	17.72	18.70	1.253	0.09	0.072	0.090
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	reduced power level 2/3/4	136100	680.5	17.69	18.70	1.262	0.08	0.331	0.418
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 2/3/4	136100	680.5	17.69	18.70	1.262	0.06	0.063	0.079
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	reduced power level 2/3/4	136100	680.5	17.69	18.70	1.262	-0.1	0.365	0.461
	SA N71_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	reduced power level 2/3/4	136100	680.5	17.69	18.70	1.262	-0.1	0.071	0.089
	SA N71_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	Full	136100	680.5	22.86	23.80	1.242	0.17	0.060	0.074
	SA N71_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	Full	136100	680.5	22.86	23.80	1.242	-0.05	0.034	0.042
	SA N71_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	Full	136100	680.5	22.86	23.80	1.242	0.12	0.078	0.097
	SA N71_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	Full	136100	680.5	22.86	23.80	1.242	0.09	0.033	0.041
	SA N71_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	Full	136100	680.5	22.69	23.80	1.291	0.03	0.067	0.087
	SA N71_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	Full	136100	680.5	22.69	23.80	1.291	0.08	0.038	0.049
	SA N71_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	136100	680.5	22.69	23.80	1.291	-0.05	0.084	0.109
	SA N71_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	Full	136100	680.5	22.69	23.80	1.291	0.11	0.036	0.047
	SA N66_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	reduced power level 1/2/3/4	344000	1720	14.68	15.20	1.127	0.04	0.521	0.587
	SA N66_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	344000	1720	14.68	15.20	1.127	0.05	0.682	0.769
	SA N66_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	reduced power level 1/2/3/4	344000	1720	14.68	15.20	1.127	0.01	0.290	0.327
	SA N66_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	reduced power level 1/2/3/4	344000	1720	14.68	15.20	1.127	-0.02	0.407	0.459
	SA N66_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	349000	1745	14.65	15.20	1.135	-0.01	0.672	0.763
22	SA N66_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	354000	1770	14.49	15.20	1.178	0.02	0.722	0.850
	SA N66_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	reduced power level 1/2/3/4	344000	1720	14.64	15.20	1.138	0.03	0.515	0.586
	SA N66_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 1/2/3/4	344000	1720	14.64	15.20	1.138	0.05	0.665	0.757
	SA N66_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	reduced power level 1/2/3/4	344000	1720	14.64	15.20	1.138	-0.12	0.284	0.323
	SA N66_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	reduced power level 1/2/3/4	344000	1720	14.64	15.20	1.138	0.03	0.396	0.451
	SA N66_Ant2	20M	PI/2 BPSK	100	0	DFT-15	Right Tilted	reduced power level 1/2/3/4	344000	1720	14.62	15.20	1.143	0.06	0.500	0.571
	SA N66_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	Full	344000	1720	23.28	23.80	1.127	0.05	0.111	0.125
	SA N66_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	Full	344000	1720	23.28	23.80	1.127	0.07	0.079	0.089
	SA N66_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	Full	344000	1720	23.28	23.80	1.127	0.11	0.193	0.218
	SA N66_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	Full	344000	1720	23.28	23.80	1.127	0.09	0.069	0.077
	SA N66_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	Full	344000	1720	23.12	23.80	1.169	0.05	0.118	0.138
	SA N66_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	Full	344000	1720	23.12	23.80	1.169	-0.03	0.078	0.091
	SA N66_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	344000	1720	23.12	23.80	1.169	0.04	0.191	0.223
	SA N66_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	Full	344000	1720	23.12	23.80	1.169	0.09	0.068	0.079
	SA N66_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	349000	1745	22.93	23.80	1.222	0.03	0.189	0.231
	SA N66_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	354000	1770	22.73	23.80	1.279	-0.11	0.155	0.198



**FCC SAR TEST REPORT**

**Report No. : FA061509-03**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	SA N2_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	reduced power level 1/2/3/4	372000	1860	15.32	15.90	1.143	0.06	0.614	0.702
	SA N2_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	372000	1860	15.32	15.90	1.143	0.04	0.720	0.823
	SA N2_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	reduced power level 1/2/3/4	372000	1860	15.32	15.90	1.143	0.12	0.334	0.382
	SA N2_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	reduced power level 1/2/3/4	372000	1860	15.32	15.90	1.143	0.09	0.434	0.496
	SA N2_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	376000	1880	15.29	15.90	1.151	-0.03	0.598	0.688
	SA N2_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	380000	1900	15.31	15.90	1.146	0.11	0.686	0.786
	SA N2_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	reduced power level 1/2/3/4	372000	1860	15.30	15.90	1.148	0.06	0.621	0.713
23	SA N2_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 1/2/3/4	372000	1860	15.30	15.90	1.148	-0.07	0.724	<b>0.831</b>
	SA N2_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	reduced power level 1/2/3/4	372000	1860	15.30	15.90	1.148	0.12	0.337	0.387
	SA N2_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	reduced power level 1/2/3/4	372000	1860	15.30	15.90	1.148	-0.07	0.435	0.499
	SA N2_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 1/2/3/4	376000	1880	15.28	15.90	1.153	0.11	0.605	0.698
	SA N2_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 1/2/3/4	380000	1900	15.26	15.90	1.159	-0.15	0.695	0.805
	SA N2_Ant2	20M	PI/2 BPSK	100	0	DFT-15	Right Tilted	reduced power level 1/2/3/4	372000	1860	15.27	15.90	1.156	0.06	0.715	0.827
	SA N2_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	Full	372000	1860	23.05	23.80	1.189	0.06	0.138	0.164
	SA N2_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	Full	372000	1860	23.05	23.80	1.189	0.03	0.128	0.152
	SA N2_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	Full	372000	1860	23.05	23.80	1.189	0.14	0.139	0.165
	SA N2_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	Full	372000	1860	23.05	23.80	1.189	0.05	0.107	0.127
	SA N2_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	Full	372000	1860	22.84	23.80	1.247	0.03	0.140	0.175
	SA N2_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	Full	372000	1860	22.84	23.80	1.247	0.09	0.133	0.166
	SA N2_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	372000	1860	22.84	23.80	1.247	-0.12	0.143	0.178
	SA N2_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	Full	372000	1860	22.84	23.80	1.247	0.05	0.111	0.138
	SA N2_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	376000	1880	22.78	23.80	1.265	0.14	0.161	0.204
	SA N2_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	380000	1900	22.74	23.80	1.276	0.07	0.180	0.230
	SA N25_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	reduced power level 1/2/3/4	376000	1880	15.23	15.90	1.167	0.05	0.629	0.734
	SA N25_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	376000	1880	15.23	15.90	1.167	0.13	0.672	0.784
	SA N25_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	reduced power level 1/2/3/4	376000	1880	15.23	15.90	1.167	0.06	0.367	0.428
	SA N25_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	reduced power level 1/2/3/4	376000	1880	15.23	15.90	1.167	-0.02	0.511	0.596
	SA N25_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	372000	1860	15.19	15.90	1.178	-0.01	0.677	0.797
24	SA N25_Ant2	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1/2/3/4	381000	1905	15.17	15.90	1.183	-0.06	0.681	<b>0.806</b>
	SA N25_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	reduced power level 1/2/3/4	376000	1880	15.19	15.90	1.178	-0.06	0.592	0.697
	SA N25_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 1/2/3/4	376000	1880	15.19	15.90	1.178	0.09	0.647	0.762
	SA N25_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	reduced power level 1/2/3/4	376000	1880	15.19	15.90	1.178	-0.07	0.348	0.410
	SA N25_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	reduced power level 1/2/3/4	376000	1880	15.19	15.90	1.178	-0.09	0.494	0.582
	SA N25_Ant2	20M	PI/2 BPSK	100	0	DFT-15	Right Tilted	reduced power level 1/2/3/4	376000	1880	15.14	15.90	1.191	0.07	0.639	0.761
	SA N25_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	Full	376000	1880	22.98	23.80	1.208	0.09	0.181	0.219
	SA N25_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	Full	376000	1880	22.98	23.80	1.208	0.06	0.100	0.120
	SA N25_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	Full	376000	1880	22.98	23.80	1.208	0.12	0.186	0.225
	SA N25_Ant3	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	Full	376000	1880	22.98	23.80	1.208	0.09	0.112	0.135
	SA N25_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	Full	376000	1880	22.87	23.80	1.239	-0.06	0.182	0.225
	SA N25_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	Full	376000	1880	22.87	23.80	1.239	0.13	0.100	0.124
	SA N25_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	376000	1880	22.87	23.80	1.239	0.07	0.195	0.242
	SA N25_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	Full	376000	1880	22.87	23.80	1.239	0.02	0.116	0.144
	SA N25_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	372000	1860	22.83	23.80	1.250	0.06	0.167	0.209
	SA N25_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	381000	1905	22.74	23.80	1.276	0.07	0.195	0.249



**FCC SAR TEST REPORT**

**Report No. : FA061509-03**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.06	0.702	0.925
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.03	0.724	0.954
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Left Cheek	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.15	0.360	0.475
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Left Tilted	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.11	0.453	0.597
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	reduced power level 1/2/3/4	509202	2546.01	15.16	16.40	1.330	-0.08	0.731	0.973
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	reduced power level 1/2/3/4	528000	2640	15.14	16.40	1.337	0.07	0.708	0.946
25	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	reduced power level 1/2/3/4	509202	2546.01	15.16	16.40	1.330	0.14	0.792	<b>1.054</b>
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	reduced power level 1/2/3/4	528000	2640	15.14	16.40	1.337	0.09	0.732	0.978
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	0.08	0.679	0.903
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	0.04	0.708	0.942
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Left Cheek	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	0.06	0.346	0.460
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Left Tilted	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	-0.06	0.438	0.583
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	reduced power level 1/2/3/4	509202	2546.01	15.13	16.40	1.340	-0.11	0.706	0.946
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	reduced power level 1/2/3/4	528000	2640	15.12	16.40	1.343	0.05	0.680	0.913
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	reduced power level 1/2/3/4	509202	2546.01	15.13	16.40	1.340	0.07	0.761	1.019
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	reduced power level 1/2/3/4	528000	2640	15.12	16.40	1.343	0.15	0.698	0.937
	SA N41_Ant2	100M	PI/2 BPSK	270	0	DFT-30	Right Cheek	reduced power level 1/2/3/4	518598	2592.99	15.13	16.40	1.340	0.15	0.668	0.895
	SA N41_Ant2	100M	PI/2 BPSK	270	0	DFT-30	Right Tilted	reduced power level 1/2/3/4	518598	2592.99	15.13	16.40	1.340	0.09	0.702	0.940
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	Full	518598	2592.99	23.12	24.00	1.225	0.05	0.255	0.312
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	Full	518598	2592.99	23.12	24.00	1.225	0.04	0.099	0.121
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Left Cheek	Full	518598	2592.99	23.12	24.00	1.225	-0.13	0.186	0.228
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Left Tilted	Full	518598	2592.99	23.12	24.00	1.225	0.05	0.189	0.231
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	Full	509202	2546.01	23.07	24.00	1.239	0.14	0.262	0.325
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	Full	528000	2640	23.05	24.00	1.245	0.09	0.235	0.292
	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	Full	518598	2592.99	23.07	24.00	1.239	0.13	0.205	0.254
	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	Full	518598	2592.99	23.07	24.00	1.239	0.07	0.100	0.123
	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Left Cheek	Full	518598	2592.99	23.07	24.00	1.239	-0.05	0.163	0.202
	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Left Tilted	Full	518598	2592.99	23.07	24.00	1.239	0.06	0.171	0.212



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.06	0.702	0.925
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.03	0.724	0.954
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Left Cheek	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.15	0.360	0.475
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Left Tilted	reduced power level 1/2/3/4	518598	2592.99	15.20	16.40	1.318	0.11	0.453	0.597
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	reduced power level 1/2/3/4	509202	2546.01	15.16	16.40	1.330	-0.08	0.731	0.973
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	reduced power level 1/2/3/4	528000	2640	15.14	16.40	1.337	0.07	0.708	0.946
26	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	reduced power level 1/2/3/4	509202	2546.01	15.16	16.40	1.330	0.14	0.792	1.054
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	reduced power level 1/2/3/4	528000	2640	15.14	16.40	1.337	0.09	0.732	0.978
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	0.08	0.679	0.903
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	0.04	0.708	0.942
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Left Cheek	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	0.06	0.346	0.460
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Left Tilted	reduced power level 1/2/3/4	518598	2592.99	15.16	16.40	1.330	-0.06	0.438	0.583
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	reduced power level 1/2/3/4	509202	2546.01	15.13	16.40	1.340	-0.11	0.706	0.946
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	reduced power level 1/2/3/4	528000	2640	15.12	16.40	1.343	0.05	0.680	0.913
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	reduced power level 1/2/3/4	509202	2546.01	15.13	16.40	1.340	0.07	0.761	1.019
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	reduced power level 1/2/3/4	528000	2640	15.12	16.40	1.343	0.15	0.698	0.937
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	270	0	DFT-30	Right Cheek	reduced power level 1/2/3/4	518598	2592.99	15.13	16.40	1.340	0.15	0.668	0.895
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	270	0	DFT-30	Right Tilted	reduced power level 1/2/3/4	518598	2592.99	15.13	16.40	1.340	0.09	0.702	0.940
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	Full	518598	2592.99	25.12	26.00	1.225	0.05	0.440	0.539
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Tilted	Full	518598	2592.99	25.12	26.00	1.225	0.04	0.150	0.184
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Left Cheek	Full	518598	2592.99	25.12	26.00	1.225	-0.13	0.304	0.372
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Left Tilted	Full	518598	2592.99	25.12	26.00	1.225	0.05	0.317	0.388
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	Full	509202	2546.01	25.07	26.00	1.239	0.14	0.412	0.510
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Right Cheek	Full	528000	2640	25.05	26.00	1.245	0.09	0.373	0.464
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Right Cheek	Full	518598	2592.99	25.08	26.00	1.236	0.13	0.409	0.506
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Right Tilted	Full	518598	2592.99	25.08	26.00	1.236	0.07	0.143	0.177
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Left Cheek	Full	518598	2592.99	25.08	26.00	1.236	-0.05	0.288	0.356
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Left Tilted	Full	518598	2592.99	25.08	26.00	1.236	0.06	0.295	0.365





<5G NR NSA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	reduced power level 1	167300	836.5	21.54	22.30	1.191	-0.08	0.582	0.693
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 1	167300	836.5	21.54	22.30	1.191	0.14	0.133	0.158
27	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	reduced power level 1	167300	836.5	21.54	22.30	1.191	-0.04	0.869	1.035
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	reduced power level 1	167300	836.5	21.54	22.30	1.191	0.03	0.142	0.169
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	reduced power level 1	167300	836.5	21.53	22.30	1.194	0.05	0.573	0.684
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 1	167300	836.5	21.53	22.30	1.194	0.03	0.141	0.168
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	reduced power level 1	167300	836.5	21.53	22.30	1.194	0.12	0.711	0.849
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	reduced power level 1	167300	836.5	21.53	22.30	1.194	-0.05	0.120	0.143
	NSA N5_Ant0	20M	PI/2 BPSK	100	0	DFT-15	Left Cheek	reduced power level 1	167300	836.5	21.50	22.30	1.202	0.02	0.766	0.921
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	reduced power level 2/3/4	167300	836.5	18.40	19.20	1.202	0.09	0.300	0.361
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	reduced power level 2/3/4	167300	836.5	18.40	19.20	1.202	0.06	0.062	0.075
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	reduced power level 2/3/4	167300	836.5	18.40	19.20	1.202	0.01	0.408	0.491
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	reduced power level 2/3/4	167300	836.5	18.40	19.20	1.202	0.03	0.067	0.080
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	reduced power level 2/3/4	167300	836.5	18.36	19.20	1.213	-0.09	0.310	0.376
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	reduced power level 2/3/4	167300	836.5	18.36	19.20	1.213	0.02	0.059	0.072
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	reduced power level 2/3/4	167300	836.5	18.36	19.20	1.213	0.04	0.363	0.440
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	reduced power level 2/3/4	167300	836.5	18.36	19.20	1.213	0.09	0.057	0.069
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Right Cheek	Full	167300	836.5	23.31	23.80	1.119	0.05	0.068	0.076
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Right Tilted	Full	167300	836.5	23.31	23.80	1.119	0.03	0.041	0.046
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Left Cheek	Full	167300	836.5	23.31	23.80	1.119	0.17	0.093	0.104
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Left Tilted	Full	167300	836.5	23.31	23.80	1.119	0.02	0.038	0.043
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Right Cheek	Full	167300	836.5	23.07	23.80	1.183	0.12	0.090	0.107
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Right Tilted	Full	167300	836.5	23.07	23.80	1.183	-0.08	0.055	0.065
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Left Cheek	Full	167300	836.5	23.07	23.80	1.183	0.07	0.129	0.153
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Left Tilted	Full	167300	836.5	23.07	23.80	1.183	-0.15	0.054	0.063



<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Right Cheek	Ant 1	reduced	39	2441	6.70	8.70	1.585	76.9	1.082	0.12	0.069	0.118
	Bluetooth	DH5 1Mbps	Right Tilted	Ant 1	reduced	39	2441	6.70	8.70	1.585	76.9	1.082	-0.05	0.076	0.130
28	Bluetooth	DH5 1Mbps	Left Cheek	Ant 1	reduced	39	2441	6.70	8.70	1.585	76.9	1.082	-0.11	0.149	<b>0.256</b>
	Bluetooth	DH5 1Mbps	Left Tilted	Ant 1	reduced	39	2441	6.70	8.70	1.585	76.9	1.082	0.09	0.105	0.180
	Bluetooth	DH5 1Mbps	Left Cheek	Ant 1	reduced	0	2402	6.30	8.30	1.585	76.9	1.082	-0.16	0.134	0.230
	Bluetooth	DH5 1Mbps	Left Cheek	Ant 1	reduced	78	2480	5.30	7.30	1.585	76.9	1.082	-0.04	0.130	0.223

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 1+2	reduced power level 1	1	2412	17.34	19.34	1.585	98.35	1.017	0.15	0.178	0.287
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 1+2	reduced power level 1	1	2412	17.34	19.34	1.585	98.35	1.017	0.1	0.193	0.311
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	reduced power level 1	1	2412	17.34	19.34	1.585	98.35	1.017	-0.01	0.409	0.659
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 1+2	reduced power level 1	1	2412	17.34	19.34	1.585	98.35	1.017	-0.03	0.356	0.574
29	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	reduced power level 1	6	2437	17.31	19.31	1.585	98.35	1.017	-0.17	0.509	<b>0.820</b>
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	reduced power level 1	11	2462	17.17	19.17	1.585	98.35	1.017	-0.11	0.461	0.743
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 1+2	reduced power level 2/3/4	1	2412	13.34	15.34	1.585	98.35	1.017	0.06	0.080	0.129
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 1+2	reduced power level 2/3/4	1	2412	13.34	15.34	1.585	98.35	1.017	-0.01	0.086	0.139
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	reduced power level 2/3/4	1	2412	13.34	15.34	1.585	98.35	1.017	-0.02	0.177	0.285
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 1+2	reduced power level 2/3/4	1	2412	13.34	15.34	1.585	98.35	1.017	-0.12	0.114	0.184
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	reduced power level 2/3/4	6	2437	13.31	15.31	1.585	98.35	1.017	0.13	0.228	0.367
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	reduced power level 2/3/4	11	2462	13.17	15.17	1.585	98.35	1.017	-0.18	0.203	0.327



<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Ant 1+2	reduced power level 1	56	5280	16.03	18.03	1.585	98.63	1.014	0.14	0.133	0.214
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Ant 1+2	reduced power level 1	56	5280	16.03	18.03	1.585	98.63	1.014	0.18	0.116	0.186
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 1	56	5280	16.03	18.03	1.585	98.63	1.014	0.05	0.534	0.858
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Ant 1+2	reduced power level 1	56	5280	16.03	18.03	1.585	98.63	1.014	-0.06	0.353	0.567
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 1	52	5260	15.74	17.74	1.585	98.63	1.014	0.03	0.509	0.818
30	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 1	60	5300	15.60	17.60	1.585	98.63	1.014	-0.09	0.557	0.895
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 1	64	5320	15.54	17.54	1.585	98.63	1.014	-0.17	0.549	0.882
	WLAN5.3GHz	802.11a 6Mbps	Right Cheek	Ant 1+2	reduced power level 2/3/4	56	5280	12.03	14.03	1.585	98.63	1.014	-0.09	0.052	0.084
	WLAN5.3GHz	802.11a 6Mbps	Right Tilted	Ant 1+2	reduced power level 2/3/4	56	5280	12.03	14.03	1.585	98.63	1.014	-0.13	0.046	0.074
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 2/3/4	56	5280	12.03	14.03	1.585	98.63	1.014	0.13	0.200	0.321
	WLAN5.3GHz	802.11a 6Mbps	Left Tilted	Ant 1+2	reduced power level 2/3/4	56	5280	12.03	14.03	1.585	98.63	1.014	-0.15	0.147	0.236
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 2/3/4	52	5260	11.74	13.74	1.585	98.63	1.014	0.03	0.198	0.318
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 2/3/4	60	5300	11.60	13.60	1.585	98.63	1.014	0.01	0.209	0.336
	WLAN5.3GHz	802.11a 6Mbps	Left Cheek	Ant 1+2	reduced power level 2/3/4	64	5320	11.54	13.54	1.585	98.63	1.014	-0.1	0.205	0.329
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	Ant 1+2	reduced power level 1	102	5510	13.98	15.98	1.585	100	1.000	0.11	0.092	0.146
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	Ant 1+2	reduced power level 1	102	5510	13.98	15.98	1.585	100	1.000	0.14	0.084	0.133
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 1	102	5510	13.98	15.98	1.585	100	1.000	-0.05	0.456	0.723
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	Ant 1+2	reduced power level 1	102	5510	13.98	15.98	1.585	100	1.000	0.13	0.313	0.496
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 1	110	5550	13.54	15.54	1.585	100	1.000	-0.16	0.434	0.688
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 1	126	5630	13.97	15.97	1.585	100	1.000	0.14	0.475	0.753
31	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 1	134	5670	13.63	15.63	1.585	100	1.000	-0.09	0.594	0.941
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 1	142	5710	13.50	15.50	1.585	100	1.000	0.02	0.480	0.761
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	Ant 1+2	reduced power level 2/3/4	102	5510	9.98	11.98	1.585	100	1.000	-0.07	0.038	0.060
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	Ant 1+2	reduced power level 2/3/4	102	5510	9.98	11.98	1.585	100	1.000	0.02	0.034	0.054
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 2/3/4	102	5510	9.98	11.98	1.585	100	1.000	0.18	0.185	0.293
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	Ant 1+2	reduced power level 2/3/4	102	5510	9.98	11.98	1.585	100	1.000	-0.11	0.129	0.204
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 2/3/4	110	5550	9.54	11.54	1.585	100	1.000	-0.1	0.187	0.296
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 2/3/4	126	5630	9.97	11.97	1.585	100	1.000	0.12	0.195	0.309
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 2/3/4	134	5670	9.63	11.63	1.585	100	1.000	-0.01	0.247	0.391
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 2/3/4	142	5710	9.50	11.50	1.585	100	1.000	0.02	0.215	0.341
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Cheek	Ant 1+2	reduced power level 1	151	5755	14.69	16.69	1.585	100	1.000	0.12	0.138	0.219
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Tilted	Ant 1+2	reduced power level 1	151	5755	14.69	16.69	1.585	100	1.000	-0.18	0.113	0.179
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 1	151	5755	14.69	16.69	1.585	100	1.000	0.15	0.540	0.856
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Tilted	Ant 1+2	reduced power level 1	151	5755	14.69	16.69	1.585	100	1.000	0.06	0.453	0.718
32	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 1	159	5795	14.61	16.61	1.585	100	1.000	-0.14	0.589	0.934
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Cheek	Ant 1+2	reduced power level 2/3/4	151	5755	10.69	12.69	1.585	100	1.000	0.19	0.054	0.086
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Tilted	Ant 1+2	reduced power level 2/3/4	151	5755	10.69	12.69	1.585	100	1.000	-0.13	0.047	0.074
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 2/3/4	151	5755	10.69	12.69	1.585	100	1.000	0.07	0.200	0.317
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Tilted	Ant 1+2	reduced power level 2/3/4	151	5755	10.69	12.69	1.585	100	1.000	0.07	0.170	0.269
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	Ant 1+2	reduced power level 2/3/4	159	5795	10.61	12.61	1.585	100	1.000	-0.02	0.206	0.326



19.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_UAT	GPRS(3 Tx slots)	Front	10mm	Reduced	251	848.8	26.02	27.50	1.406	-0.07	0.312	0.439
	GSM850_UAT	GPRS(3 Tx slots)	Back	10mm	Reduced	251	848.8	26.02	27.50	1.406	-0.03	0.279	0.392
	GSM850_UAT	GPRS(3 Tx slots)	Left Side	10mm	Reduced	251	848.8	26.02	27.50	1.406	0.02	0.339	0.477
	GSM850_UAT	GPRS(3 Tx slots)	Right Side	10mm	Reduced	251	848.8	26.02	27.50	1.406	0.15	0.012	0.017
	GSM850_UAT	GPRS(3 Tx slots)	Top Side	10mm	Reduced	251	848.8	26.02	27.50	1.406	0.19	0.014	0.020
33	GSM850_UAT	GPRS(3 Tx slots)	Left Side	10mm	Reduced	128	824.2	25.98	27.50	1.419	-0.07	0.408	0.579
	GSM850_UAT	GPRS(3 Tx slots)	Left Side	10mm	Reduced	189	836.4	25.95	27.50	1.429	-0.05	0.367	0.524
	GSM850_LAT	GPRS(3 Tx slots)	Front	10mm	Full	251	848.8	28.19	29.80	1.449	-0.11	0.258	0.374
	GSM850_LAT	GPRS(3 Tx slots)	Back	10mm	Full	251	848.8	28.19	29.80	1.449	-0.15	0.326	0.472
	GSM850_LAT	GPRS(3 Tx slots)	Left Side	10mm	Full	251	848.8	28.19	29.80	1.449	-0.05	0.203	0.294
	GSM850_LAT	GPRS(3 Tx slots)	Right Side	10mm	Full	251	848.8	28.19	29.80	1.449	0	0.183	0.265
	GSM850_LAT	GPRS(3 Tx slots)	Bottom Side	10mm	Full	251	848.8	28.19	29.80	1.449	-0.07	0.184	0.267
	GSM850_LAT	GPRS(3 Tx slots)	Back	10mm	Full	128	824.2	28.07	29.80	1.489	-0.05	0.372	0.554
	GSM850_LAT	GPRS(3 Tx slots)	Back	10mm	Full	189	836.4	28.15	29.80	1.462	0.02	0.383	0.560
	GSM1900_UAT	GPRS(3 Tx slots)	Front	10mm	Reduced	810	1909.8	22.10	23.30	1.318	0.01	0.138	0.182
	GSM1900_UAT	GPRS(3 Tx slots)	Back	10mm	Reduced	810	1909.8	22.10	23.30	1.318	0.03	0.160	0.211
	GSM1900_UAT	GPRS(3 Tx slots)	Left Side	10mm	Reduced	810	1909.8	22.10	23.30	1.318	0.05	0.028	0.036
	GSM1900_UAT	GPRS(3 Tx slots)	Right Side	10mm	Reduced	810	1909.8	22.10	23.30	1.318	0.02	0.020	0.026
	GSM1900_UAT	GPRS(3 Tx slots)	Top Side	10mm	Reduced	810	1909.8	22.10	23.30	1.318	0.05	0.225	0.297
	GSM1900_UAT	GPRS(3 Tx slots)	Top Side	10mm	Reduced	512	1850.2	21.99	23.30	1.352	0.07	0.214	0.289
	GSM1900_UAT	GPRS(3 Tx slots)	Top Side	10mm	Reduced	661	1880	22.08	23.30	1.324	0.11	0.253	0.335
	GSM1900_LAT	GPRS(3 Tx slots)	Front	10mm	Reduced	810	1909.8	23.83	24.90	1.279	0.02	0.266	0.340
	GSM1900_LAT	GPRS(3 Tx slots)	Back	10mm	Reduced	810	1909.8	23.83	24.90	1.279	0.08	0.305	0.390
	GSM1900_LAT	GPRS(3 Tx slots)	Left Side	10mm	Reduced	810	1909.8	23.83	24.90	1.279	0.04	0.101	0.129
	GSM1900_LAT	GPRS(3 Tx slots)	Right Side	10mm	Reduced	810	1909.8	23.83	24.90	1.279	0.06	0.083	0.106
	GSM1900_LAT	GPRS(3 Tx slots)	Bottom Side	10mm	Reduced	810	1909.8	23.83	24.90	1.279	0.02	0.380	0.486
	GSM1900_LAT	GPRS(3 Tx slots)	Bottom Side	10mm	Reduced	512	1850.2	23.44	24.90	1.400	0.14	0.333	0.466
34	GSM1900_LAT	GPRS(3 Tx slots)	Bottom Side	10mm	Reduced	661	1880	23.71	24.90	1.315	0.03	0.394	0.518



<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_UAT	RMC 12.2Kbps	Front	10mm	Reduced	4182	836.4	21.07	21.90	1.211	0.03	0.307	0.372
	WCDMA V_UAT	RMC 12.2Kbps	Back	10mm	Reduced	4182	836.4	21.07	21.90	1.211	-0.13	0.281	0.340
	WCDMA V_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	4182	836.4	21.07	21.90	1.211	-0.06	0.420	0.508
	WCDMA V_UAT	RMC 12.2Kbps	Right Side	10mm	Reduced	4182	836.4	21.07	21.90	1.211	0.04	0.013	0.015
	WCDMA V_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	4182	836.4	21.07	21.90	1.211	0.02	0.127	0.154
	WCDMA V_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	4132	826.4	21.06	21.90	1.213	0.02	0.489	0.593
	WCDMA V_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	4233	846.6	20.98	21.90	1.236	0.13	0.435	0.538
	WCDMA V_LAT	RMC 12.2Kbps	Front	10mm	Full	4182	836.4	23.60	24.80	1.318	0.03	0.354	0.467
	WCDMA V_LAT	RMC 12.2Kbps	Back	10mm	Full	4182	836.4	23.60	24.80	1.318	0.01	0.406	0.535
	WCDMA V_LAT	RMC 12.2Kbps	Left Side	10mm	Full	4182	836.4	23.60	24.80	1.318	0.07	0.235	0.310
	WCDMA V_LAT	RMC 12.2Kbps	Right Side	10mm	Full	4182	836.4	23.60	24.80	1.318	0.02	0.260	0.343
	WCDMA V_LAT	RMC 12.2Kbps	Bottom Side	10mm	Full	4182	836.4	23.60	24.80	1.318	0.05	0.233	0.307
35	WCDMA V_LAT	RMC 12.2Kbps	Back	10mm	Full	4132	826.4	23.52	24.80	1.343	-0.03	0.464	0.623
	WCDMA V_LAT	RMC 12.2Kbps	Back	10mm	Full	4233	846.6	23.59	24.80	1.321	-0.04	0.425	0.562
	WCDMA IV_UAT	RMC 12.2Kbps	Front	10mm	Reduced	1513	1752.6	20.45	21.10	1.161	0.09	0.287	0.333
	WCDMA IV_UAT	RMC 12.2Kbps	Back	10mm	Reduced	1513	1752.6	20.45	21.10	1.161	0.03	0.329	0.382
	WCDMA IV_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	1513	1752.6	20.45	21.10	1.161	-0.01	0.126	0.146
	WCDMA IV_UAT	RMC 12.2Kbps	Right Side	10mm	Reduced	1513	1752.6	20.45	21.10	1.161	-0.11	0.081	0.094
	WCDMA IV_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	1513	1752.6	20.45	21.10	1.161	0.02	0.501	0.582
	WCDMA IV_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	1312	1712.4	20.42	21.10	1.169	0.08	0.411	0.481
	WCDMA IV_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	1413	1732.6	20.44	21.10	1.164	0.07	0.453	0.527
	WCDMA IV_LAT	RMC 12.2Kbps	Front	10mm	Reduced	1513	1752.6	18.84	19.80	1.247	0.03	0.298	0.372
	WCDMA IV_LAT	RMC 12.2Kbps	Back	10mm	Reduced	1513	1752.6	18.84	19.80	1.247	0.04	0.388	0.484
	WCDMA IV_LAT	RMC 12.2Kbps	Left Side	10mm	Reduced	1513	1752.6	18.84	19.80	1.247	0.01	0.080	0.100
	WCDMA IV_LAT	RMC 12.2Kbps	Right Side	10mm	Reduced	1513	1752.6	18.84	19.80	1.247	-0.05	0.067	0.084
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	1513	1752.6	18.84	19.80	1.247	0.02	0.430	0.536
36	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	1312	1712.4	18.68	19.80	1.294	0.02	0.496	0.642
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	1413	1732.6	18.80	19.80	1.259	0.02	0.483	0.608
	WCDMA II_UAT	RMC 12.2Kbps	Front	10mm	Reduced	9400	1880	19.38	20.00	1.153	0.04	0.224	0.258
	WCDMA II_UAT	RMC 12.2Kbps	Back	10mm	Reduced	9400	1880	19.38	20.00	1.153	0.13	0.254	0.293
	WCDMA II_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	9400	1880	19.38	20.00	1.153	0.09	0.106	0.122
	WCDMA II_UAT	RMC 12.2Kbps	Right Side	10mm	Reduced	9400	1880	19.38	20.00	1.153	0.03	0.051	0.059
	WCDMA II_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	9400	1880	19.38	20.00	1.153	-0.04	0.425	0.490
	WCDMA II_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	9262	1852.4	19.30	20.00	1.175	0.03	0.418	0.491
	WCDMA II_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	9538	1907.6	19.28	20.00	1.180	0.07	0.429	0.506
	WCDMA II_LAT	RMC 12.2Kbps	Front	10mm	Reduced	9400	1880	18.38	19.40	1.265	0.02	0.263	0.333
	WCDMA II_LAT	RMC 12.2Kbps	Back	10mm	Reduced	9400	1880	18.38	19.40	1.265	0.08	0.325	0.411
	WCDMA II_LAT	RMC 12.2Kbps	Left Side	10mm	Reduced	9400	1880	18.38	19.40	1.265	0.04	0.085	0.108
	WCDMA II_LAT	RMC 12.2Kbps	Right Side	10mm	Reduced	9400	1880	18.38	19.40	1.265	-0.05	0.067	0.085
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	9400	1880	18.38	19.40	1.265	-0.03	0.418	0.529
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	9262	1852.4	18.33	19.40	1.279	0.07	0.406	0.519
37	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	9538	1907.6	18.36	19.40	1.271	0.19	0.447	0.568



**<CDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Front	10mm	Reduced	384	836.52	20.60	22.20	1.445	0.16	0.413	0.597
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Back	10mm	Reduced	384	836.52	20.60	22.20	1.445	-0.05	0.345	0.499
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	384	836.52	20.60	22.20	1.445	0.05	0.421	0.609
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Right Side	10mm	Reduced	384	836.52	20.60	22.20	1.445	-0.08	0.023	0.033
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Top Side	10mm	Reduced	384	836.52	20.60	22.20	1.445	0.09	0.017	0.024
38	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	1013	824.7	20.59	22.20	1.449	0.03	0.577	<b>0.836</b>
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	777	848.31	20.55	22.20	1.462	-0.02	0.392	0.573
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Front	10mm	Reduced	384	836.52	22.37	23.60	1.327	-0.14	0.283	0.376
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	384	836.52	22.37	23.60	1.327	-0.17	0.388	0.515
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	384	836.52	22.37	23.60	1.327	0.14	0.114	0.151
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Right Side	10mm	Reduced	384	836.52	22.37	23.60	1.327	-0.15	0.228	0.303
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	384	836.52	22.37	23.60	1.327	0.02	0.197	0.261
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	1013	824.7	22.23	23.60	1.371	-0.01	0.351	0.481
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	777	848.31	22.01	23.60	1.442	0.15	0.383	0.552
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Front	10mm	Reduced	580	820.5	20.75	22.10	1.365	0.03	0.393	0.536
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Back	10mm	Reduced	580	820.5	20.75	22.10	1.365	-0.01	0.363	0.495
39	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	580	820.5	20.75	22.10	1.365	0.02	0.564	<b>0.770</b>
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Right Side	10mm	Reduced	580	820.5	20.75	22.10	1.365	0.03	0.033	0.045
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Top Side	10mm	Reduced	580	820.5	20.75	22.10	1.365	0.09	0.014	0.020
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	476	817.9	20.71	22.10	1.377	-0.07	0.466	0.642
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	684	823.1	20.68	22.10	1.387	0.01	0.462	0.641
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Front	10mm	Reduced	580	820.5	22.12	23.30	1.312	0.08	0.288	0.378
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	580	820.5	22.12	23.30	1.312	-0.06	0.382	0.501
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	580	820.5	22.12	23.30	1.312	0.18	0.124	0.163
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Right Side	10mm	Reduced	580	820.5	22.12	23.30	1.312	-0.08	0.221	0.290
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	580	820.5	22.12	23.30	1.312	0.1	0.193	0.253
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	476	817.9	22.09	23.30	1.321	-0.04	0.377	0.498
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	684	823.1	22.07	23.30	1.327	0.13	0.436	0.579
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Front	10mm	Reduced	600	1880	19.33	20.40	1.279	-0.1	0.304	0.389
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Back	10mm	Reduced	600	1880	19.33	20.40	1.279	0.09	0.283	0.362
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	600	1880	19.33	20.40	1.279	-0.11	0.097	0.124
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Right Side	10mm	Reduced	600	1880	19.33	20.40	1.279	0.08	0.044	0.056
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Top Side	10mm	Reduced	600	1880	19.33	20.40	1.279	0.03	0.447	0.572
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Top Side	10mm	Reduced	25	1851.25	19.27	20.40	1.297	0.16	0.451	0.585
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Top Side	10mm	Reduced	1175	1908.75	19.26	20.40	1.300	-0.1	0.453	0.589
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Front	10mm	Reduced	600	1880	19.85	20.90	1.274	-0.19	0.306	0.390
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	600	1880	19.85	20.90	1.274	0.06	0.464	0.591
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	600	1880	19.85	20.90	1.274	0.02	0.123	0.157
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Right Side	10mm	Reduced	600	1880	19.85	20.90	1.274	0.07	0.096	0.122
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	600	1880	19.85	20.90	1.274	-0.19	0.592	0.754
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	25	1851.25	19.78	20.90	1.294	0.01	0.626	0.810
40	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	1175	1908.75	19.82	20.90	1.282	0.05	0.642	<b>0.823</b>



<FDD LTE SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71_UAT	20M	QPSK	1	0	Front	10mm	Reduced	133322	683	21.09	22.00	1.233	0.05	0.359	0.443
	LTE Band 71_UAT	20M	QPSK	1	0	Back	10mm	Reduced	133322	683	21.09	22.00	1.233	0.05	0.351	0.433
	LTE Band 71_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	133322	683	21.09	22.00	1.233	-0.13	0.591	0.729
	LTE Band 71_UAT	20M	QPSK	1	0	Right Side	10mm	Reduced	133322	683	21.09	22.00	1.233	0.03	0.024	0.030
	LTE Band 71_UAT	20M	QPSK	1	0	Top Side	10mm	Reduced	133322	683	21.09	22.00	1.233	0.06	0.027	0.033
	LTE Band 71_UAT	20M	QPSK	50	24	Front	10mm	Reduced	133322	683	21.05	22.00	1.245	0.01	0.410	0.510
	LTE Band 71_UAT	20M	QPSK	50	24	Back	10mm	Reduced	133322	683	21.05	22.00	1.245	0.03	0.384	0.478
41	LTE Band 71_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	133322	683	21.05	22.00	1.245	0.02	0.590	0.734
	LTE Band 71_UAT	20M	QPSK	50	24	Right Side	10mm	Reduced	133322	683	21.05	22.00	1.245	-0.06	0.026	0.032
	LTE Band 71_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	133322	683	21.05	22.00	1.245	0.07	0.029	0.036
	LTE Band 71_LAT	20M	QPSK	1	0	Front	10mm	Full	133322	683	22.85	23.80	1.245	-0.04	0.304	0.378
	LTE Band 71_LAT	20M	QPSK	1	0	Back	10mm	Full	133322	683	22.85	23.80	1.245	0.02	0.403	0.502
	LTE Band 71_LAT	20M	QPSK	1	0	Left Side	10mm	Full	133322	683	22.85	23.80	1.245	0.01	0.191	0.238
	LTE Band 71_LAT	20M	QPSK	1	0	Right Side	10mm	Full	133322	683	22.85	23.80	1.245	0.06	0.230	0.286
	LTE Band 71_LAT	20M	QPSK	1	0	Bottom Side	10mm	Full	133322	683	22.85	23.80	1.245	-0.03	0.128	0.159
	LTE Band 71_LAT	20M	QPSK	50	24	Front	10mm	Full	133322	683	21.89	22.80	1.233	-0.06	0.240	0.296
	LTE Band 71_LAT	20M	QPSK	50	24	Back	10mm	Full	133322	683	21.89	22.80	1.233	-0.03	0.319	0.393
	LTE Band 71_LAT	20M	QPSK	50	24	Left Side	10mm	Full	133322	683	21.89	22.80	1.233	0.01	0.170	0.210
	LTE Band 71_LAT	20M	QPSK	50	24	Right Side	10mm	Full	133322	683	21.89	22.80	1.233	-0.05	0.158	0.195
	LTE Band 71_LAT	20M	QPSK	50	24	Bottom Side	10mm	Full	133322	683	21.89	22.80	1.233	0.05	0.107	0.132
	LTE Band 12_UAT	10M	QPSK	1	49	Front	10mm	Reduced	23095	707.5	19.75	20.70	1.245	-0.09	0.459	0.571
	LTE Band 12_UAT	10M	QPSK	1	49	Back	10mm	Reduced	23095	707.5	19.75	20.70	1.245	0.02	0.331	0.412
	LTE Band 12_UAT	10M	QPSK	1	49	Left Side	10mm	Reduced	23095	707.5	19.75	20.70	1.245	0.06	0.539	0.671
	LTE Band 12_UAT	10M	QPSK	1	49	Right Side	10mm	Reduced	23095	707.5	19.75	20.70	1.245	-0.05	0.019	0.024
	LTE Band 12_UAT	10M	QPSK	1	49	Top Side	10mm	Reduced	23095	707.5	19.75	20.70	1.245	0.06	0.020	0.024
	LTE Band 12_UAT	10M	QPSK	25	25	Front	10mm	Reduced	23095	707.5	19.71	20.70	1.256	-0.17	0.433	0.544
	LTE Band 12_UAT	10M	QPSK	25	25	Back	10mm	Reduced	23095	707.5	19.71	20.70	1.256	0.1	0.340	0.427
42	LTE Band 12_UAT	10M	QPSK	25	25	Left Side	10mm	Reduced	23095	707.5	19.71	20.70	1.256	0	0.556	0.698
	LTE Band 12_UAT	10M	QPSK	25	25	Right Side	10mm	Reduced	23095	707.5	19.71	20.70	1.256	0.09	0.019	0.023
	LTE Band 12_UAT	10M	QPSK	25	25	Top Side	10mm	Reduced	23095	707.5	19.71	20.70	1.256	-0.08	0.021	0.026
	LTE Band 12_LAT	10M	QPSK	1	49	Front	10mm	Full	23095	707.5	22.63	23.80	1.309	0.07	0.354	0.463
	LTE Band 12_LAT	10M	QPSK	1	49	Back	10mm	Full	23095	707.5	22.63	23.80	1.309	0.01	0.473	0.619
	LTE Band 12_LAT	10M	QPSK	1	49	Left Side	10mm	Full	23095	707.5	22.63	23.80	1.309	-0.06	0.275	0.360
	LTE Band 12_LAT	10M	QPSK	1	49	Right Side	10mm	Full	23095	707.5	22.63	23.80	1.309	-0.11	0.227	0.297
	LTE Band 12_LAT	10M	QPSK	1	49	Bottom Side	10mm	Full	23095	707.5	22.63	23.80	1.309	-0.02	0.182	0.238
	LTE Band 12_LAT	10M	QPSK	25	25	Front	10mm	Full	23095	707.5	21.75	22.80	1.274	0.01	0.286	0.364
	LTE Band 12_LAT	10M	QPSK	25	25	Back	10mm	Full	23095	707.5	21.75	22.80	1.274	0.01	0.405	0.516
	LTE Band 12_LAT	10M	QPSK	25	25	Left Side	10mm	Full	23095	707.5	21.75	22.80	1.274	-0.1	0.222	0.283
	LTE Band 12_LAT	10M	QPSK	25	25	Right Side	10mm	Full	23095	707.5	21.75	22.80	1.274	-0.16	0.187	0.238
	LTE Band 12_LAT	10M	QPSK	25	25	Bottom Side	10mm	Full	23095	707.5	21.75	22.80	1.274	-0.14	0.149	0.190



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 13_UAT	10M	QPSK	1	25	Front	10mm	Reduced	23230	782	19.89	21.00	1.291	0.14	0.321	0.414
	LTE Band 13_UAT	10M	QPSK	1	25	Back	10mm	Reduced	23230	782	19.89	21.00	1.291	0.06	0.243	0.314
	LTE Band 13_UAT	10M	QPSK	1	25	Left Side	10mm	Reduced	23230	782	19.89	21.00	1.291	0.05	0.450	0.581
	LTE Band 13_UAT	10M	QPSK	1	25	Right Side	10mm	Reduced	23230	782	19.89	21.00	1.291	-0.07	0.013	0.016
	LTE Band 13_UAT	10M	QPSK	1	25	Top Side	10mm	Reduced	23230	782	19.89	21.00	1.291	0.02	0.011	0.014
	LTE Band 13_UAT	10M	QPSK	25	25	Front	10mm	Reduced	23230	782	19.85	21.00	1.303	0.07	0.326	0.425
	LTE Band 13_UAT	10M	QPSK	25	25	Back	10mm	Reduced	23230	782	19.85	21.00	1.303	0.01	0.249	0.324
43	LTE Band 13_UAT	10M	QPSK	25	25	Left Side	10mm	Reduced	23230	782	19.85	21.00	1.303	0.05	0.447	<b>0.583</b>
	LTE Band 13_UAT	10M	QPSK	25	25	Right Side	10mm	Reduced	23230	782	19.85	21.00	1.303	-0.03	0.013	0.016
	LTE Band 13_UAT	10M	QPSK	25	25	Top Side	10mm	Reduced	23230	782	19.85	21.00	1.303	-0.15	0.011	0.014
	LTE Band 13_LAT	10M	QPSK	1	25	Front	10mm	Full	23230	782	22.58	23.80	1.324	0.03	0.309	0.409
	LTE Band 13_LAT	10M	QPSK	1	25	Back	10mm	Full	23230	782	22.58	23.80	1.324	-0.01	0.427	0.565
	LTE Band 13_LAT	10M	QPSK	1	25	Left Side	10mm	Full	23230	782	22.58	23.80	1.324	-0.14	0.243	0.322
	LTE Band 13_LAT	10M	QPSK	1	25	Right Side	10mm	Full	23230	782	22.58	23.80	1.324	-0.04	0.192	0.254
	LTE Band 13_LAT	10M	QPSK	1	25	Bottom Side	10mm	Full	23230	782	22.58	23.80	1.324	-0.19	0.168	0.222
	LTE Band 13_LAT	10M	QPSK	25	25	Front	10mm	Full	23230	782	21.74	22.80	1.276	-0.14	0.242	0.309
	LTE Band 13_LAT	10M	QPSK	25	25	Back	10mm	Full	23230	782	21.74	22.80	1.276	0.01	0.348	0.444
	LTE Band 13_LAT	10M	QPSK	25	25	Left Side	10mm	Full	23230	782	21.74	22.80	1.276	-0.12	0.196	0.250
	LTE Band 13_LAT	10M	QPSK	25	25	Right Side	10mm	Full	23230	782	21.74	22.80	1.276	-0.07	0.159	0.203
	LTE Band 13_LAT	10M	QPSK	25	25	Bottom Side	10mm	Full	23230	782	21.74	22.80	1.276	-0.05	0.139	0.177
	LTE Band 5_UAT	10M	QPSK	1	0	Front	10mm	Reduced	20525	836.5	19.68	21.00	1.355	-0.02	0.319	0.432
	LTE Band 5_UAT	10M	QPSK	1	0	Back	10mm	Reduced	20525	836.5	19.68	21.00	1.355	0.08	0.238	0.323
44	LTE Band 5_UAT	10M	QPSK	1	0	Left Side	10mm	Reduced	20525	836.5	19.68	21.00	1.355	0.07	0.426	<b>0.577</b>
	LTE Band 5_UAT	10M	QPSK	1	0	Right Side	10mm	Reduced	20525	836.5	19.68	21.00	1.355	0.1	0.014	0.019
	LTE Band 5_UAT	10M	QPSK	1	0	Top Side	10mm	Reduced	20525	836.5	19.68	21.00	1.355	0.04	0.021	0.028
	LTE Band 5_UAT	10M	QPSK	25	12	Front	10mm	Reduced	20525	836.5	19.66	21.00	1.361	-0.02	0.310	0.422
	LTE Band 5_UAT	10M	QPSK	25	12	Back	10mm	Reduced	20525	836.5	19.66	21.00	1.361	0.01	0.229	0.312
	LTE Band 5_UAT	10M	QPSK	25	12	Left Side	10mm	Reduced	20525	836.5	19.66	21.00	1.361	0.09	0.414	0.564
	LTE Band 5_UAT	10M	QPSK	25	12	Right Side	10mm	Reduced	20525	836.5	19.66	21.00	1.361	-0.07	0.013	0.017
	LTE Band 5_UAT	10M	QPSK	25	12	Top Side	10mm	Reduced	20525	836.5	19.66	21.00	1.361	0.12	0.014	0.019
	LTE Band 5_LAT	10M	QPSK	1	0	Front	10mm	Full	20525	836.5	22.33	23.80	1.403	-0.11	0.302	0.424
	LTE Band 5_LAT	10M	QPSK	1	0	Back	10mm	Full	20525	836.5	22.33	23.80	1.403	-0.05	0.367	0.515
	LTE Band 5_LAT	10M	QPSK	1	0	Left Side	10mm	Full	20525	836.5	22.33	23.80	1.403	0.16	0.156	0.219
	LTE Band 5_LAT	10M	QPSK	1	0	Right Side	10mm	Full	20525	836.5	22.33	23.80	1.403	-0.08	0.250	0.351
	LTE Band 5_LAT	10M	QPSK	1	0	Bottom Side	10mm	Full	20525	836.5	22.33	23.80	1.403	0.05	0.221	0.310
	LTE Band 5_LAT	10M	QPSK	25	12	Front	10mm	Full	20525	836.5	21.49	22.80	1.352	-0.1	0.250	0.338
	LTE Band 5_LAT	10M	QPSK	25	12	Back	10mm	Full	20525	836.5	21.49	22.80	1.352	-0.04	0.318	0.430
	LTE Band 5_LAT	10M	QPSK	25	12	Left Side	10mm	Full	20525	836.5	21.49	22.80	1.352	-0.02	0.119	0.161
	LTE Band 5_LAT	10M	QPSK	25	12	Right Side	10mm	Full	20525	836.5	21.49	22.80	1.352	-0.14	0.206	0.279
	LTE Band 5_LAT	10M	QPSK	25	12	Bottom Side	10mm	Full	20525	836.5	21.49	22.80	1.352	0.01	0.176	0.238





Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 26_UAT	15M	QPSK	1	0	Front	10mm	Reduced	26965	841.5	19.90	21.00	1.288	0.03	0.336	0.433
	LTE Band 26_UAT	15M	QPSK	1	0	Back	10mm	Reduced	26965	841.5	19.90	21.00	1.288	0.02	0.317	0.408
	LTE Band 26_UAT	15M	QPSK	1	0	Left Side	10mm	Reduced	26965	841.5	19.90	21.00	1.288	0.19	0.366	0.471
	LTE Band 26_UAT	15M	QPSK	1	0	Right Side	10mm	Reduced	26965	841.5	19.90	21.00	1.288	-0.17	0.012	0.016
	LTE Band 26_UAT	15M	QPSK	1	0	Top Side	10mm	Reduced	26965	841.5	19.90	21.00	1.288	0.02	0.013	0.017
	LTE Band 26_UAT	15M	QPSK	36	20	Front	10mm	Reduced	26965	841.5	19.85	21.00	1.303	-0.02	0.320	0.417
	LTE Band 26_UAT	15M	QPSK	36	20	Back	10mm	Reduced	26965	841.5	19.85	21.00	1.303	-0.04	0.305	0.397
	LTE Band 26_UAT	15M	QPSK	36	20	Left Side	10mm	Reduced	26965	841.5	19.85	21.00	1.303	-0.01	0.383	0.499
	LTE Band 26_UAT	15M	QPSK	36	20	Right Side	10mm	Reduced	26965	841.5	19.85	21.00	1.303	-0.09	0.013	0.017
	LTE Band 26_UAT	15M	QPSK	36	20	Top Side	10mm	Reduced	26965	841.5	19.85	21.00	1.303	0.17	0.015	0.019
45	LTE Band 26_UAT	15M	QPSK	36	20	Left Side	10mm	Reduced	26765	821.5	19.78	21.00	1.324	0.01	0.516	<b>0.683</b>
	LTE Band 26_UAT	15M	QPSK	36	20	Left Side	10mm	Reduced	26865	831.5	19.82	21.00	1.312	-0.02	0.385	<b>0.505</b>
	LTE Band 26_LAT	15M	QPSK	1	0	Front	10mm	Reduced	26965	841.5	21.41	22.20	1.199	0.13	0.234	0.281
	LTE Band 26_LAT	15M	QPSK	1	0	Back	10mm	Reduced	26965	841.5	21.41	22.20	1.199	-0.09	0.362	0.434
	LTE Band 26_LAT	15M	QPSK	1	0	Left Side	10mm	Reduced	26965	841.5	21.41	22.20	1.199	0.14	0.096	0.115
	LTE Band 26_LAT	15M	QPSK	1	0	Right Side	10mm	Reduced	26965	841.5	21.41	22.20	1.199	-0.04	0.189	0.227
	LTE Band 26_LAT	15M	QPSK	1	0	Bottom Side	10mm	Reduced	26965	841.5	21.41	22.20	1.199	0.05	0.173	0.208
	LTE Band 26_LAT	15M	QPSK	1	0	Back	10mm	Reduced	26765	821.5	21.31	22.20	1.227	-0.12	0.283	0.347
	LTE Band 26_LAT	15M	QPSK	1	0	Back	10mm	Reduced	26865	831.5	21.26	22.20	1.242	0.19	0.293	0.364
	LTE Band 26_LAT	15M	QPSK	36	20	Front	10mm	Reduced	26965	841.5	21.39	22.20	1.205	0.19	0.232	0.280
	LTE Band 26_LAT	15M	QPSK	36	20	Back	10mm	Reduced	26965	841.5	21.39	22.20	1.205	-0.04	0.321	0.387
	LTE Band 26_LAT	15M	QPSK	36	20	Left Side	10mm	Reduced	26965	841.5	21.39	22.20	1.205	-0.01	0.088	0.106
	LTE Band 26_LAT	15M	QPSK	36	20	Right Side	10mm	Reduced	26965	841.5	21.39	22.20	1.205	0.07	0.188	0.227
	LTE Band 26_LAT	15M	QPSK	36	20	Bottom Side	10mm	Reduced	26965	841.5	21.39	22.20	1.205	0.06	0.175	0.211



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_UAT	20M	QPSK	1	0	Front	10mm	Reduced	132322	1745	19.01	19.80	1.199	-0.15	0.202	0.242
	LTE Band 66_UAT	20M	QPSK	1	0	Back	10mm	Reduced	132322	1745	19.01	19.80	1.199	0.16	0.240	0.288
	LTE Band 66_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	132322	1745	19.01	19.80	1.199	0.12	0.115	0.138
	LTE Band 66_UAT	20M	QPSK	1	0	Right Side	10mm	Reduced	132322	1745	19.01	19.80	1.199	-0.1	0.062	0.074
	LTE Band 66_UAT	20M	QPSK	1	0	Top Side	10mm	Reduced	132322	1745	19.01	19.80	1.199	-0.05	0.370	0.444
	LTE Band 66_UAT	20M	QPSK	50	0	Front	10mm	Reduced	132322	1745	18.97	19.80	1.211	0.15	0.206	0.249
	LTE Band 66_UAT	20M	QPSK	50	0	Back	10mm	Reduced	132322	1745	18.97	19.80	1.211	0.02	0.246	0.298
	LTE Band 66_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	132322	1745	18.97	19.80	1.211	-0.07	0.118	0.143
	LTE Band 66_UAT	20M	QPSK	50	0	Right Side	10mm	Reduced	132322	1745	18.97	19.80	1.211	-0.02	0.064	0.078
	LTE Band 66_UAT	20M	QPSK	50	0	Top Side	10mm	Reduced	132322	1745	18.97	19.80	1.211	0.13	0.375	0.454
	LTE Band 66_UAT	20M	QPSK	50	0	Top Side	10mm	Reduced	132072	1720	18.92	19.80	1.225	0	0.347	0.425
	LTE Band 66_UAT	20M	QPSK	50	0	Top Side	10mm	Reduced	132572	1770	18.95	19.80	1.216	0.08	0.412	0.501
	LTE Band 66_LAT	20M	QPSK	1	0	Front	10mm	Reduced	132322	1745	18.34	19.20	1.219	0.03	0.251	0.306
	LTE Band 66_LAT	20M	QPSK	1	0	Back	10mm	Reduced	132322	1745	18.34	19.20	1.219	0.11	0.342	0.417
	LTE Band 66_LAT	20M	QPSK	1	0	Left Side	10mm	Reduced	132322	1745	18.34	19.20	1.219	0.14	0.088	0.107
	LTE Band 66_LAT	20M	QPSK	1	0	Right Side	10mm	Reduced	132322	1745	18.34	19.20	1.219	0.08	0.075	0.091
	LTE Band 66_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	132322	1745	18.34	19.20	1.219	0.14	0.359	0.438
46	LTE Band 66_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	132072	1720	18.17	19.20	1.268	0.01	0.431	0.546
	LTE Band 66_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	132572	1770	18.27	19.20	1.239	-0.06	0.403	0.499
	LTE CA_66C_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	132322(PCC)+132124(SCC)	1745(PCC)+1725.2(SCC)	18.23	19.20	1.250	0.05	0.327	0.409
	LTE CA_66C_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	132072(PCC)+132270(SCC)	1720(PCC)+1739.8(SCC)	18.14	19.20	1.276	0.08	0.299	0.382
	LTE CA_66C_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	132572(PCC)+132374(SCC)	1770(PCC)+1750.2(SCC)	18.17	19.20	1.268	0.11	0.311	0.394
	LTE Band 66_LAT	20M	QPSK	50	0	Front	10mm	Reduced	132322	1745	18.29	19.20	1.233	-0.13	0.244	0.301
	LTE Band 66_LAT	20M	QPSK	50	0	Back	10mm	Reduced	132322	1745	18.29	19.20	1.233	0.1	0.326	0.402
	LTE Band 66_LAT	20M	QPSK	50	0	Left Side	10mm	Reduced	132322	1745	18.29	19.20	1.233	0.1	0.086	0.106
	LTE Band 66_LAT	20M	QPSK	50	0	Right Side	10mm	Reduced	132322	1745	18.29	19.20	1.233	0.12	0.072	0.089
	LTE Band 66_LAT	20M	QPSK	50	0	Bottom Side	10mm	Reduced	132322	1745	18.29	19.20	1.233	-0.04	0.353	0.435
EN-DC																
	LTE Band 66_Ant0	20M	QPSK	1	0	Front	10mm	Reduced	132322	1745	20.17	20.80	1.156	0.08	0.102	0.118
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	10mm	Reduced	132322	1745	20.17	20.80	1.156	0.04	0.274	0.317
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Side	10mm	Reduced	132322	1745	20.17	20.80	1.156	-0.07	0.291	0.336
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	10mm	Reduced	132322	1745	20.17	20.80	1.156	0.14	0.027	0.031
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Side	10mm	Reduced	132072	1720	19.87	20.80	1.239	0.06	0.205	0.254
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Side	10mm	Reduced	132572	1770	19.88	20.80	1.236	-0.01	0.361	0.446
	LTE Band 66_Ant0	20M	QPSK	50	0	Front	10mm	Reduced	132322	1745	20.11	20.80	1.172	-0.11	0.086	0.101
	LTE Band 66_Ant0	20M	QPSK	50	0	Back	10mm	Reduced	132322	1745	20.11	20.80	1.172	0.07	0.237	0.278
	LTE Band 66_Ant0	20M	QPSK	50	0	Left Side	10mm	Reduced	132322	1745	20.11	20.80	1.172	0.09	0.240	0.281
	LTE Band 66_Ant0	20M	QPSK	50	0	Top Side	10mm	Reduced	132322	1745	20.11	20.80	1.172	-0.06	0.024	0.028



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 25_UAT	20M	QPSK	1	0	Front	10mm	Reduced	26340	1880	18.30	19.10	1.202	0.03	0.178	0.214
	LTE Band 25_UAT	20M	QPSK	1	0	Back	10mm	Reduced	26340	1880	18.30	19.10	1.202	-0.03	0.221	0.266
	LTE Band 25_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	26340	1880	18.30	19.10	1.202	-0.11	0.078	0.094
	LTE Band 25_UAT	20M	QPSK	1	0	Right Side	10mm	Reduced	26340	1880	18.30	19.10	1.202	-0.04	0.049	0.059
	LTE Band 25_UAT	20M	QPSK	1	0	Top Side	10mm	Reduced	26340	1880	18.30	19.10	1.202	0.01	0.393	0.472
	LTE Band 25_UAT	20M	QPSK	50	24	Front	10mm	Reduced	26340	1880	18.28	19.10	1.208	0.07	0.202	0.244
	LTE Band 25_UAT	20M	QPSK	50	24	Back	10mm	Reduced	26340	1880	18.28	19.10	1.208	-0.18	0.266	0.321
	LTE Band 25_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	26340	1880	18.28	19.10	1.208	0.16	0.080	0.097
	LTE Band 25_UAT	20M	QPSK	50	24	Right Side	10mm	Reduced	26340	1880	18.28	19.10	1.208	0.18	0.051	0.062
	LTE Band 25_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	26340	1880	18.28	19.10	1.208	-0.18	0.403	0.487
	LTE Band 25_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	26140	1860	18.24	19.10	1.219	-0.14	0.410	0.500
	LTE Band 25_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	26590	1905	18.23	19.10	1.222	0	0.412	0.503
	LTE Band 25_LAT	20M	QPSK	1	0	Front	10mm	Reduced	26340	1880	17.81	18.80	1.256	0.11	0.295	0.371
	LTE Band 25_LAT	20M	QPSK	1	0	Back	10mm	Reduced	26340	1880	17.81	18.80	1.256	-0.05	0.370	0.465
	LTE Band 25_LAT	20M	QPSK	1	0	Left Side	10mm	Reduced	26340	1880	17.81	18.80	1.256	0.17	0.095	0.119
	LTE Band 25_LAT	20M	QPSK	1	0	Right Side	10mm	Reduced	26340	1880	17.81	18.80	1.256	0.02	0.072	0.090
	LTE Band 25_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	26340	1880	17.81	18.80	1.256	0.11	0.444	0.558
	LTE Band 25_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	26140	1860	17.69	18.80	1.291	0	0.452	0.584
47	LTE Band 25_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	26590	1905	17.65	18.80	1.303	-0.02	0.471	<b>0.614</b>
	LTE Band 25_LAT	20M	QPSK	50	24	Front	10mm	Reduced	26340	1880	17.79	18.80	1.262	0.13	0.257	0.324
	LTE Band 25_LAT	20M	QPSK	50	24	Back	10mm	Reduced	26340	1880	17.79	18.80	1.262	0.02	0.363	0.458
	LTE Band 25_LAT	20M	QPSK	50	24	Left Side	10mm	Reduced	26340	1880	17.79	18.80	1.262	-0.07	0.093	0.117
	LTE Band 25_LAT	20M	QPSK	50	24	Right Side	10mm	Reduced	26340	1880	17.79	18.80	1.262	-0.02	0.069	0.087
	LTE Band 25_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	26340	1880	17.79	18.80	1.262	-0.12	0.438	0.553
EN-DC																
	LTE Band 2_Ant0	20M	QPSK	1	0	Front	10mm	Reduced	18900	1880	20.07	20.80	1.183	0.04	0.109	0.129
	LTE Band 2_Ant0	20M	QPSK	1	0	Back	10mm	Reduced	18900	1880	20.07	20.80	1.183	0.07	0.320	0.379
	LTE Band 2_Ant0	20M	QPSK	1	0	Left Side	10mm	Reduced	18900	1880	20.07	20.80	1.183	0.01	0.346	0.409
	LTE Band 2_Ant0	20M	QPSK	1	0	Top Side	10mm	Reduced	18900	1880	20.07	20.80	1.183	0.05	0.061	0.072
	LTE Band 2_Ant0	20M	QPSK	1	0	Left Side	10mm	Reduced	18700	1860	19.87	20.80	1.239	-0.07	0.376	0.466
	LTE Band 2_Ant0	20M	QPSK	1	0	Left Side	10mm	Reduced	19100	1900	19.88	20.80	1.236	-0.03	0.298	0.368
	LTE Band 2_Ant0	20M	QPSK	50	0	Front	10mm	Reduced	18900	1880	20.02	20.80	1.197	0.01	0.089	0.107
	LTE Band 2_Ant0	20M	QPSK	50	0	Back	10mm	Reduced	18900	1880	20.02	20.80	1.197	0.08	0.255	0.305
	LTE Band 2_Ant0	20M	QPSK	50	0	Left Side	10mm	Reduced	18900	1880	20.02	20.80	1.197	-0.02	0.232	0.278
	LTE Band 2_Ant0	20M	QPSK	50	0	Top Side	10mm	Reduced	18900	1880	20.02	20.80	1.197	0.05	0.046	0.055



Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30_UAT	10M	QPSK	1	0	Front	10mm	Reduced	27710	2310	18.09	19.00	1.233	0.01	0.198	0.244
	LTE Band 30_UAT	10M	QPSK	1	0	Back	10mm	Reduced	27710	2310	18.09	19.00	1.233	0.03	0.268	0.330
	LTE Band 30_UAT	10M	QPSK	1	0	Left Side	10mm	Reduced	27710	2310	18.09	19.00	1.233	-0.18	0.080	0.099
	LTE Band 30_UAT	10M	QPSK	1	0	Right Side	10mm	Reduced	27710	2310	18.09	19.00	1.233	-0.02	0.034	0.042
	LTE Band 30_UAT	10M	QPSK	1	0	Top Side	10mm	Reduced	27710	2310	18.09	19.00	1.233	0.03	0.342	0.422
	LTE Band 30_UAT	10M	QPSK	25	12	Front	10mm	Reduced	27710	2310	18.06	19.00	1.242	-0.07	0.201	0.250
	LTE Band 30_UAT	10M	QPSK	25	12	Back	10mm	Reduced	27710	2310	18.06	19.00	1.242	0.11	0.282	0.350
	LTE Band 30_UAT	10M	QPSK	25	12	Left Side	10mm	Reduced	27710	2310	18.06	19.00	1.242	0.08	0.083	0.103
	LTE Band 30_UAT	10M	QPSK	25	12	Right Side	10mm	Reduced	27710	2310	18.06	19.00	1.242	-0.15	0.035	0.044
48	LTE Band 30_UAT	10M	QPSK	25	12	Top Side	10mm	Reduced	27710	2310	18.06	19.00	1.242	0.1	0.350	0.435
	LTE Band 30_LAT	10M	QPSK	1	0	Front	10mm	Reduced	27710	2310	17.17	18.50	1.358	-0.14	0.202	0.274
	LTE Band 30_LAT	10M	QPSK	1	0	Back	10mm	Reduced	27710	2310	17.17	18.50	1.358	-0.18	0.275	0.374
	LTE Band 30_LAT	10M	QPSK	1	0	Left Side	10mm	Reduced	27710	2310	17.17	18.50	1.358	0.05	0.033	0.045
	LTE Band 30_LAT	10M	QPSK	1	0	Right Side	10mm	Reduced	27710	2310	17.17	18.50	1.358	-0.16	0.013	0.017
	LTE Band 30_LAT	10M	QPSK	1	0	Bottom Side	10mm	Reduced	27710	2310	17.17	18.50	1.358	0.06	0.233	0.316
	LTE Band 30_LAT	10M	QPSK	25	12	Front	10mm	Reduced	27710	2310	17.16	18.50	1.361	0	0.209	0.285
	LTE Band 30_LAT	10M	QPSK	25	12	Back	10mm	Reduced	27710	2310	17.16	18.50	1.361	0.14	0.290	0.395
	LTE Band 30_LAT	10M	QPSK	25	12	Left Side	10mm	Reduced	27710	2310	17.16	18.50	1.361	-0.11	0.034	0.046
	LTE Band 30_LAT	10M	QPSK	25	12	Right Side	10mm	Reduced	27710	2310	17.16	18.50	1.361	-0.16	0.014	0.019
	LTE Band 30_LAT	10M	QPSK	25	12	Bottom Side	10mm	Reduced	27710	2310	17.16	18.50	1.361	0.19	0.241	0.328
	LTE Band 7_UAT	20M	QPSK	1	99	Front	10mm	Reduced	21350	2560	15.73	16.50	1.194	-0.19	0.069	0.082
	LTE Band 7_UAT	20M	QPSK	1	99	Back	10mm	Reduced	21350	2560	15.73	16.50	1.194	0.04	0.127	0.152
	LTE Band 7_UAT	20M	QPSK	1	99	Left Side	10mm	Reduced	21350	2560	15.73	16.50	1.194	-0.1	0.029	0.034
	LTE Band 7_UAT	20M	QPSK	1	99	Right Side	10mm	Reduced	21350	2560	15.73	16.50	1.194	-0.04	0.013	0.016
	LTE Band 7_UAT	20M	QPSK	1	99	Top Side	10mm	Reduced	21350	2560	15.73	16.50	1.194	-0.18	0.284	0.339
	LTE Band 7_UAT	20M	QPSK	50	24	Front	10mm	Reduced	21350	2560	15.67	16.50	1.211	-0.13	0.078	0.094
	LTE Band 7_UAT	20M	QPSK	50	24	Back	10mm	Reduced	21350	2560	15.67	16.50	1.211	-0.1	0.142	0.172
	LTE Band 7_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	21350	2560	15.67	16.50	1.211	0.16	0.032	0.038
	LTE Band 7_UAT	20M	QPSK	50	24	Right Side	10mm	Reduced	21350	2560	15.67	16.50	1.211	0.16	0.017	0.021
	LTE Band 7_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	21350	2560	15.67	16.50	1.211	0.13	0.283	0.343
	LTE Band 7_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	20850	2510	15.50	16.50	1.259	0.08	0.376	0.473
	LTE Band 7_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	21100	2535	15.66	16.50	1.213	0.15	0.311	0.377
	LTE Band 7_LAT	20M	QPSK	1	99	Front	10mm	Reduced	21350	2560	18.73	19.90	1.309	0.16	0.232	0.304
	LTE Band 7_LAT	20M	QPSK	1	99	Back	10mm	Reduced	21350	2560	18.73	19.90	1.309	-0.15	0.417	0.546
	LTE Band 7_LAT	20M	QPSK	1	99	Left Side	10mm	Reduced	21350	2560	18.73	19.90	1.309	0.15	0.100	0.131
	LTE Band 7_LAT	20M	QPSK	1	99	Right Side	10mm	Reduced	21350	2560	18.73	19.90	1.309	0.18	0.121	0.158
	LTE Band 7_LAT	20M	QPSK	1	99	Bottom Side	10mm	Reduced	21350	2560	18.73	19.90	1.309	0.02	0.346	0.453
	LTE Band 7_LAT	20M	QPSK	50	24	Front	10mm	Reduced	21350	2560	18.69	19.90	1.321	-0.02	0.236	0.312
49	LTE Band 7_LAT	20M	QPSK	50	24	Back	10mm	Reduced	21350	2560	18.69	19.90	1.321	-0.11	0.416	0.550
	LTE Band 7_LAT	20M	QPSK	50	24	Left Side	10mm	Reduced	21350	2560	18.69	19.90	1.321	0.08	0.105	0.139
	LTE Band 7_LAT	20M	QPSK	50	24	Right Side	10mm	Reduced	21350	2560	18.69	19.90	1.321	-0.15	0.119	0.157
	LTE Band 7_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	21350	2560	18.69	19.90	1.321	0.08	0.397	0.525
	LTE Band 7_LAT	20M	QPSK	50	24	Back	10mm	Reduced	20850	2510	18.61	19.90	1.346	0.07	0.355	0.478
	LTE Band 7_LAT	20M	QPSK	50	24	Back	10mm	Reduced	21100	2535	18.53	19.90	1.371	0.07	0.387	0.531





# FCC SAR TEST REPORT

Report No. : FA061509-03

	LTE Band 41(HPUE)_LAT	20M	QPSK	1	49	Left Side	10mm	Reduced	40185	2549.5	22.56	23.30	1.186	42.9	1.009	0.07	0.069	0.083
	LTE Band 41(HPUE)_LAT	20M	QPSK	1	49	Right Side	10mm	Reduced	40185	2549.5	22.56	23.30	1.186	42.9	1.009	0.15	0.049	0.059
	LTE Band 41(HPUE)_LAT	20M	QPSK	1	49	Bottom Side	10mm	Reduced	40185	2549.5	22.56	23.30	1.186	42.9	1.009	0.1	0.244	0.292
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Front	10mm	Reduced	40185	2549.5	22.40	23.30	1.230	42.9	1.009	-0.02	0.255	0.317
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	40185	2549.5	22.40	23.30	1.230	42.9	1.009	0.04	0.341	0.423
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Left Side	10mm	Reduced	40185	2549.5	22.40	23.30	1.230	42.9	1.009	-0.14	0.067	0.083
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Right Side	10mm	Reduced	40185	2549.5	22.40	23.30	1.230	42.9	1.009	-0.12	0.056	0.070
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Bottom Side	10mm	Reduced	40185	2549.5	22.40	23.30	1.230	42.9	1.009	-0.01	0.302	0.375
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	39750	2506	22.32	23.30	1.253	42.9	1.009	-0.01	0.350	0.443
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	40620	2593	22.32	23.30	1.253	42.9	1.009	0.06	0.406	0.513
51	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	41055	2636.5	22.27	23.30	1.268	42.9	1.009	0.13	0.453	0.579
	LTE Band 41(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	41490	2680	22.19	23.30	1.291	42.9	1.009	0.17	0.395	0.515
	LTE CA_41C(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	40185(PCC)+40383(SCC)	2549.5(PCC)+2569.3(SCC)	22.38	23.30	1.236	42.9	1.009	0.06	0.153	0.191
	LTE CA_41C(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	39750(PCC)+39948(SCC)	2506(PCC)+2525.8(SCC)	22.23	23.30	1.279	42.9	1.009	0.13	0.147	0.190
	LTE CA_41C(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	40620(PCC)+40422(SCC)	2593(PCC)+2573.2(SCC)	22.35	23.30	1.245	42.9	1.009	0.09	0.205	0.257
	LTE CA_41C(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	41055(PCC)+40857(SCC)	2636.5(PCC)+2616.7(SCC)	22.34	23.30	1.247	42.9	1.009	-0.07	0.167	0.210
	LTE CA_41C(HPUE)_LAT	20M	QPSK	50	50	Back	10mm	Reduced	41490(PCC)+41292(SCC)	2680(PCC)+2660.2(SCC)	22.27	23.30	1.268	42.9	1.009	-0.02	0.175	0.224
	LTE Band 48_UAT	20M	QPSK	1	0	Front	10mm	Reduced	56640	3690	16.21	17.10	1.227	62.9	1.006	-0.11	0.058	0.072
	LTE Band 48_UAT	20M	QPSK	1	0	Back	10mm	Reduced	56640	3690	16.21	17.10	1.227	62.9	1.006	0.01	0.181	0.223
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	56640	3690	16.21	17.10	1.227	62.9	1.006	0.05	0.029	0.036
	LTE Band 48_UAT	20M	QPSK	1	0	Right Side	10mm	Reduced	56640	3690	16.21	17.10	1.227	62.9	1.006	0.01	0.017	0.021
	LTE Band 48_UAT	20M	QPSK	1	0	Top Side	10mm	Reduced	56640	3690	16.21	17.10	1.227	62.9	1.006	-0.06	0.103	0.127
	LTE Band 48_UAT	20M	QPSK	50	24	Front	10mm	Reduced	56640	3690	16.06	17.10	1.271	62.9	1.006	-0.18	0.059	0.075
	LTE Band 48_UAT	20M	QPSK	50	24	Back	10mm	Reduced	56640	3690	16.06	17.10	1.271	62.9	1.006	-0.09	0.218	0.279
	LTE Band 48_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	56640	3690	16.06	17.10	1.271	62.9	1.006	-0.19	0.038	0.049
	LTE Band 48_UAT	20M	QPSK	50	24	Right Side	10mm	Reduced	56640	3690	16.06	17.10	1.271	62.9	1.006	-0.05	0.015	0.019
	LTE Band 48_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	56640	3690	16.06	17.10	1.271	62.9	1.006	0.1	0.105	0.134
	LTE Band 48_UAT	20M	QPSK	50	24	Back	10mm	Reduced	55340	3560	16.04	17.10	1.276	62.9	1.006	-0.03	0.197	0.253
	LTE Band 48_UAT	20M	QPSK	50	24	Back	10mm	Reduced	55830	3609	16.03	17.10	1.279	62.9	1.006	0.02	0.206	0.265
52	LTE Band 48_UAT	20M	QPSK	50	24	Back	10mm	Reduced	56150	3641	16.04	17.10	1.276	62.9	1.006	-0.08	0.228	0.293
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	10mm	Reduced	56640(PCC+ 56442(SCC)	3690(PCC)+3670.2(SCC)	16.17	17.10	1.239	62.9	1.006	0.05	0.209	0.260
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	10mm	Reduced	55340(PCC+ 55538(SCC)	3560(PCC)+3579.8(SCC)	15.97	17.10	1.297	62.9	1.006	0.06	0.202	0.264
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	10mm	Reduced	55830(PCC)+55632(SCC)	3609(PCC)+3589.2(SCC)	16.15	17.10	1.245	62.9	1.006	0.12	0.205	0.257
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	10mm	Reduced	56150(PCC)+55952(SCC)	3641(PCC)+3621.2(SCC)	16.06	17.10	1.271	62.9	1.006	-0.03	0.210	0.268



<5G NR SA SAR>

Table with 17 columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Power Reduction, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). It contains test results for SA N71 and SA N66 antennas across various positions and configurations.



FCC SAR TEST REPORT

Report No. : FA061509-03

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Power Reduction, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows include SA N2\_Ant2, SA N2\_Ant3, SA N25\_Ant2, SA N25\_Ant3 with various test parameters and SAR values.







<5G NR NSA SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Front	10mm	Full	167300	836.5	22.55	23.30	1.189	0.06	0.497	0.591
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Back	10mm	Full	167300	836.5	22.55	23.30	1.189	-0.18	0.419	0.498
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Left Side	10mm	Full	167300	836.5	22.55	23.30	1.189	0.06	0.674	0.801
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Right Side	10mm	Full	167300	836.5	22.55	23.30	1.189	-0.04	0.005	0.006
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Top Side	10mm	Full	167300	836.5	22.55	23.30	1.189	0.14	0.029	0.034
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Front	10mm	Full	167300	836.5	22.36	23.30	1.242	-0.05	0.565	0.702
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Back	10mm	Full	167300	836.5	22.36	23.30	1.242	-0.08	0.393	0.488
59	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Left Side	10mm	Full	167300	836.5	22.36	23.30	1.242	-0.01	0.675	<b>0.838</b>
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Right Side	10mm	Full	167300	836.5	22.36	23.30	1.242	-0.02	0.005	0.006
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Top Side	10mm	Full	167300	836.5	22.36	23.30	1.242	0.08	0.027	0.033
	NSA N5_Ant0	20M	PI/2 BPSK	100	0	DFT-15	Left Side	10mm	Full	167300	836.5	21.58	22.80	1.324	-0.1	0.457	0.605
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Front	10mm	Full	167300	836.5	23.31	23.80	1.119	-0.03	0.268	0.300
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Back	10mm	Full	167300	836.5	23.31	23.80	1.119	-0.03	0.265	0.297
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Left Side	10mm	Full	167300	836.5	23.31	23.80	1.119	0.02	0.129	0.144
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Right Side	10mm	Full	167300	836.5	23.31	23.80	1.119	-0.04	0.186	0.208
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Bottom Side	10mm	Full	167300	836.5	23.31	23.80	1.119	0.05	0.181	0.203
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Front	10mm	Full	167300	836.5	23.07	23.80	1.183	0.11	0.251	0.297
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Back	10mm	Full	167300	836.5	23.07	23.80	1.183	0.08	0.280	0.331
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Left Side	10mm	Full	167300	836.5	23.07	23.80	1.183	0.07	0.131	0.155
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Right Side	10mm	Full	167300	836.5	23.07	23.80	1.183	0.06	0.203	0.240
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Bottom Side	10mm	Full	167300	836.5	23.07	23.80	1.183	-0.08	0.188	0.222



<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 1	Full	39	2441	9.30	11.30	1.585	76.9	1.083	0.18	0.037	0.064
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 1	Full	39	2441	9.30	11.30	1.585	76.9	1.083	0.16	0.057	0.097
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 1	Full	39	2441	9.30	11.30	1.585	76.9	1.083	0.12	0.005	0.008
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 1	Full	39	2441	9.30	11.30	1.585	76.9	1.083	0.19	0.014	0.025
60	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 1	Full	39	2441	9.30	11.30	1.585	76.9	1.083	0.02	0.088	0.152
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 1	Full	0	2402	8.40	10.40	1.585	76.9	1.083	-0.14	0.067	0.114
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 1	Full	78	2480	8.40	10.40	1.585	76.9	1.083	0.14	0.064	0.110

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1+2	Reduced power level 1	1	2412	20.34	22.34	1.585	98.35	1.017	-0.12	0.122	0.197
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 1	1	2412	20.34	22.34	1.585	98.35	1.017	-0.05	0.472	0.761
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 1+2	Reduced power level 1	1	2412	20.34	22.34	1.585	98.35	1.017	0.02	0.008	0.013
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced power level 1	1	2412	20.34	22.34	1.585	98.35	1.017	0.13	0.226	0.364
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	Reduced power level 1	1	2412	20.34	22.34	1.585	98.35	1.017	0.07	0.232	0.374
61	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 1	6	2437	20.31	22.31	1.585	98.35	1.017	0.17	0.553	0.891
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 1	11	2462	20.17	22.17	1.585	98.35	1.017	-0.11	0.526	0.848
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	-0.02	0.079	0.127
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	0	0.291	0.469
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	-0.07	0.005	0.008
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	-0.13	0.140	0.226
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	-0.09	0.145	0.234
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 2/3	6	2437	18.31	20.31	1.585	98.35	1.017	-0.1	0.338	0.545
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 2/3	11	2462	18.17	20.17	1.585	98.35	1.017	-0.08	0.323	0.521
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	0.08	0.039	0.063
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	-0.08	0.145	0.234
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	-0.14	0.003	0.004
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	-0.13	0.076	0.122
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	0.01	0.080	0.129
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 4	6	2437	15.31	17.31	1.585	98.35	1.017	-0.03	0.166	0.268
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced power level 4	11	2462	15.17	17.17	1.585	98.35	1.017	0.14	0.158	0.255



<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 1+2	Reduced power level 1	40	5200	21.02	23.02	1.585	98.63	1.014	-0.15	0.184	0.296
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 1	40	5200	21.02	23.02	1.585	98.63	1.014	0.04	0.505	0.812
	WLAN5.2GHz	802.11a 6Mbps	Left Side	10mm	Ant 1+2	Reduced power level 1	40	5200	21.02	23.02	1.585	98.63	1.014	-0.13	0.027	0.044
	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 1+2	Reduced power level 1	40	5200	21.02	23.02	1.585	98.63	1.014	0.05	0.320	0.514
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 1+2	Reduced power level 1	40	5200	21.02	23.02	1.585	98.63	1.014	-0.14	0.123	0.198
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 1	36	5180	20.72	22.72	1.585	98.63	1.014	0.13	0.497	0.799
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 1	44	5220	20.73	22.73	1.585	98.63	1.014	-0.08	0.529	0.850
62	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 1	48	5240	20.64	22.64	1.585	98.63	1.014	-0.03	0.613	0.985
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 1+2	Reduced power level 2/3	40	5200	19.02	21.02	1.585	98.63	1.014	-0.15	0.116	0.186
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 2/3	40	5200	19.02	21.02	1.585	98.63	1.014	0.12	0.311	0.500
	WLAN5.2GHz	802.11a 6Mbps	Left Side	10mm	Ant 1+2	Reduced power level 2/3	40	5200	19.02	21.02	1.585	98.63	1.014	0.05	0.018	0.029
	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 1+2	Reduced power level 2/3	40	5200	19.02	21.02	1.585	98.63	1.014	-0.1	0.195	0.313
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 1+2	Reduced power level 2/3	40	5200	19.02	21.02	1.585	98.63	1.014	0.07	0.075	0.121
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 2/3	36	5180	18.72	20.72	1.585	98.63	1.014	0.14	0.309	0.497
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 2/3	44	5220	18.73	20.73	1.585	98.63	1.014	-0.03	0.327	0.526
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 2/3	48	5240	18.64	20.64	1.585	98.63	1.014	0.09	0.345	0.554
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 1+2	Reduced power level 4	40	5200	16.02	18.02	1.585	98.63	1.014	-0.17	0.060	0.096
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 4	40	5200	16.02	18.02	1.585	98.63	1.014	0.02	0.159	0.256
	WLAN5.2GHz	802.11a 6Mbps	Left Side	10mm	Ant 1+2	Reduced power level 4	40	5200	16.02	18.02	1.585	98.63	1.014	0.02	0.008	0.013
	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 1+2	Reduced power level 4	40	5200	16.02	18.02	1.585	98.63	1.014	-0.13	0.102	0.164
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 1+2	Reduced power level 4	40	5200	16.02	18.02	1.585	98.63	1.014	0.1	0.042	0.067
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 4	36	5180	15.72	17.72	1.585	98.63	1.014	-0.17	0.147	0.236
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 4	44	5220	15.73	17.73	1.585	98.63	1.014	-0.19	0.157	0.252
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 1+2	Reduced power level 4	48	5240	15.64	17.64	1.585	98.63	1.014	0.18	0.169	0.272
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	10mm	Ant 1+2	Reduced power level 1	151	5755	20.69	22.69	1.585	100	1.000	0.17	0.200	0.317
63	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1+2	Reduced power level 1	151	5755	20.69	22.69	1.585	100	1.000	-0.01	0.481	0.762
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 1+2	Reduced power level 1	151	5755	20.69	22.69	1.585	100	1.000	0.01	0.016	0.026
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 1+2	Reduced power level 1	151	5755	20.69	22.69	1.585	100	1.000	-0.02	0.258	0.409
	WLAN5.8GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 1+2	Reduced power level 1	151	5755	20.69	22.69	1.585	100	1.000	0.17	0.190	0.301
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1+2	Reduced power level 1	159	5795	20.61	22.61	1.585	100	1.000	-0.03	0.446	0.707
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	10mm	Ant 1+2	Reduced power level 2/3	151	5755	19.69	21.69	1.585	100	1.000	0.07	0.162	0.257
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1+2	Reduced power level 2/3	151	5755	19.69	21.69	1.585	100	1.000	-0.17	0.350	0.555
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 1+2	Reduced power level 2/3	151	5755	19.69	21.69	1.585	100	1.000	0.18	0.013	0.021
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 1+2	Reduced power level 2/3	151	5755	19.69	21.69	1.585	100	1.000	0.08	0.206	0.326
	WLAN5.8GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 1+2	Reduced power level 2/3	151	5755	19.69	21.69	1.585	100	1.000	-0.07	0.153	0.242
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1+2	Reduced power level 2/3	159	5795	19.61	21.61	1.585	100	1.000	0.13	0.327	0.518
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	10mm	Ant 1+2	Reduced power level 4	151	5755	16.69	18.69	1.585	100	1.000	-0.03	0.079	0.125
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1+2	Reduced power level 4	151	5755	16.69	18.69	1.585	100	1.000	-0.07	0.178	0.282
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 1+2	Reduced power level 4	151	5755	16.69	18.69	1.585	100	1.000	0.09	0.006	0.010
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 1+2	Reduced power level 4	151	5755	16.69	18.69	1.585	100	1.000	-0.15	0.105	0.166
	WLAN5.8GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 1+2	Reduced power level 4	151	5755	16.69	18.69	1.585	100	1.000	0.06	0.078	0.124
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 1+2	Reduced power level 4	159	5795	16.61	18.61	1.585	100	1.000	0.01	0.179	0.284

**19.3 Body Worn Accessory SAR**
**<GSM SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	GSM850_UAT	GPRS(3 Tx slots)	Front	15mm	Full	251	848.8	27.87	29.30	1.390	0.11	0.283	0.393
	GSM850_UAT	GPRS(3 Tx slots)	Back	15mm	Full	251	848.8	27.87	29.30	1.390	-0.03	0.243	0.338
	GSM850_UAT	GPRS(3 Tx slots)	Front	15mm	Full	128	824.2	27.55	29.30	1.496	0.03	0.257	0.385
	GSM850_UAT	GPRS(3 Tx slots)	Front	15mm	Full	189	836.4	27.74	29.30	1.432	-0.19	0.198	0.284
	GSM850_LAT	GPRS(3 Tx slots)	Front	15mm	Full	251	848.8	28.19	29.80	1.449	0.14	0.205	0.297
	GSM850_LAT	GPRS(3 Tx slots)	Back	15mm	Full	251	848.8	28.19	29.80	1.449	0.18	0.281	0.407
	GSM850_LAT	GPRS(3 Tx slots)	Back	15mm	Full	128	824.2	28.07	29.80	1.489	0.01	0.239	0.356
64	GSM850_LAT	GPRS(3 Tx slots)	Back	15mm	Full	189	836.4	28.15	29.80	1.462	-0.02	0.299	<b>0.437</b>
	GSM1900_UAT	GPRS(3 Tx slots)	Front	15mm	Full	810	1909.8	23.16	24.50	1.361	-0.09	0.097	0.132
	GSM1900_UAT	GPRS(3 Tx slots)	Back	15mm	Full	810	1909.8	23.16	24.50	1.361	-0.11	0.122	0.166
	GSM1900_UAT	GPRS(3 Tx slots)	Back	15mm	Full	512	1850.2	23.13	24.50	1.371	0.03	0.161	0.221
	GSM1900_UAT	GPRS(3 Tx slots)	Back	15mm	Full	661	1880	23.10	24.50	1.380	-0.13	0.140	0.193
	GSM1900_LAT	GPRS(3 Tx slots)	Front	15mm	Full	810	1909.8	25.28	26.50	1.324	-0.02	0.278	0.368
65	GSM1900_LAT	GPRS(3 Tx slots)	Back	15mm	Full	810	1909.8	25.28	26.50	1.324	0.13	0.288	<b>0.381</b>
	GSM1900_LAT	GPRS(3 Tx slots)	Back	15mm	Full	512	1850.2	25.14	26.50	1.368	0.09	0.278	0.380
	GSM1900_LAT	GPRS(3 Tx slots)	Back	15mm	Full	661	1880	25.22	26.50	1.343	-0.04	0.254	0.341

**<WCDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WCDMA V_UAT	RMC 12.2Kbps	Front	15mm	Full	4182	836.4	23.18	24.30	1.294	0.08	0.309	0.400
	WCDMA V_UAT	RMC 12.2Kbps	Back	15mm	Full	4182	836.4	23.18	24.30	1.294	-0.09	0.289	0.374
66	WCDMA V_UAT	RMC 12.2Kbps	Front	15mm	Full	4132	826.4	23.05	24.30	1.334	0	0.324	<b>0.432</b>
	WCDMA V_UAT	RMC 12.2Kbps	Front	15mm	Full	4233	846.6	23.16	24.30	1.300	0.01	0.302	0.393
	WCDMA V_LAT	RMC 12.2Kbps	Front	15mm	Full	4182	836.4	23.60	24.80	1.318	0.02	0.247	0.326
	WCDMA V_LAT	RMC 12.2Kbps	Back	15mm	Full	4182	836.4	23.60	24.80	1.318	0.01	0.321	0.423
	WCDMA V_LAT	RMC 12.2Kbps	Back	15mm	Full	4132	826.4	23.52	24.80	1.343	-0.09	0.289	0.388
	WCDMA V_LAT	RMC 12.2Kbps	Back	15mm	Full	4233	846.6	23.59	24.80	1.321	-0.04	0.324	0.428
	WCDMA IV_UAT	RMC 12.2Kbps	Front	15mm	Full	1513	1752.6	21.49	22.80	1.352	0.13	0.157	0.212
	WCDMA IV_UAT	RMC 12.2Kbps	Back	15mm	Full	1513	1752.6	21.49	22.80	1.352	-0.1	0.180	0.243
	WCDMA IV_UAT	RMC 12.2Kbps	Back	15mm	Full	1312	1712.4	21.38	22.80	1.387	0.09	0.175	0.243
	WCDMA IV_UAT	RMC 12.2Kbps	Back	15mm	Full	1413	1732.6	21.47	22.80	1.358	-0.17	0.171	0.232
	WCDMA IV_LAT	RMC 12.2Kbps	Front	15mm	Full	1513	1752.6	23.73	24.80	1.279	-0.11	0.393	0.503
	WCDMA IV_LAT	RMC 12.2Kbps	Back	15mm	Full	1513	1752.6	23.73	24.80	1.279	-0.05	0.465	0.595
67	WCDMA IV_LAT	RMC 12.2Kbps	Back	15mm	Full	1312	1712.4	23.61	24.80	1.315	-0.07	0.535	<b>0.704</b>
	WCDMA IV_LAT	RMC 12.2Kbps	Back	15mm	Full	1413	1732.6	23.70	24.80	1.288	0.07	0.507	0.653
	WCDMA II_UAT	RMC 12.2Kbps	Front	15mm	Full	9400	1880	21.61	22.80	1.315	0.02	0.211	0.278
	WCDMA II_UAT	RMC 12.2Kbps	Back	15mm	Full	9400	1880	21.61	22.80	1.315	0.04	0.244	0.321
	WCDMA II_UAT	RMC 12.2Kbps	Back	15mm	Full	9262	1852.4	21.59	22.80	1.321	-0.04	0.251	0.332
	WCDMA II_UAT	RMC 12.2Kbps	Back	15mm	Full	9538	1907.6	21.54	22.80	1.337	0.02	0.253	0.338
	WCDMA II_LAT	RMC 12.2Kbps	Front	15mm	Full	9400	1880	23.67	24.80	1.297	-0.17	0.344	0.446
	WCDMA II_LAT	RMC 12.2Kbps	Back	15mm	Full	9400	1880	23.67	24.80	1.297	0.08	0.522	0.677
	WCDMA II_LAT	RMC 12.2Kbps	Back	15mm	Full	9262	1852.4	23.62	24.80	1.312	0.05	0.524	0.688
68	WCDMA II_LAT	RMC 12.2Kbps	Back	15mm	Full	9538	1907.6	23.65	24.80	1.303	-0.06	0.531	<b>0.692</b>

**<CDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	384	836.52	22.90	24.30	1.380	0.03	0.245	0.338
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	384	836.52	22.90	24.30	1.380	-0.05	0.236	0.326
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	1013	824.7	22.81	24.30	1.409	0.14	0.244	0.344
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	777	848.31	22.56	24.30	1.493	0.09	0.217	0.324
	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Front	15mm	Full	384	836.52	23.53	24.80	1.340	0.02	0.202	0.271
	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	384	836.52	23.53	24.80	1.340	-0.04	0.262	0.351
	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	1013	824.7	23.41	24.80	1.377	0.16	0.229	0.315
69	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	777	848.31	23.13	24.80	1.469	-0.01	0.268	<b>0.394</b>
70	CDMA2000 BC10_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	580	820.5	22.84	24.30	1.400	-0.13	0.294	<b>0.411</b>
	CDMA2000 BC10_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	580	820.5	22.84	24.30	1.400	-0.04	0.284	0.397
	CDMA2000 BC10_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	476	817.9	22.82	24.30	1.406	0.07	0.290	0.408
	CDMA2000 BC10_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	684	823.1	22.80	24.30	1.413	0.01	0.290	0.410
	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Front	15mm	Full	580	820.5	23.41	24.80	1.377	0.02	0.158	0.218
	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	580	820.5	23.41	24.80	1.377	-0.03	0.276	0.380
	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	476	817.9	23.40	24.80	1.380	0.02	0.253	0.349
	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	684	823.1	23.34	24.80	1.400	-0.01	0.270	0.378
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	600	1880	21.73	22.80	1.279	-0.12	0.251	0.321
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	600	1880	21.73	22.80	1.279	-0.06	0.291	0.372
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	25	1851.25	21.65	22.80	1.303	0.17	0.296	0.386
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	1175	1908.75	21.64	22.80	1.306	0.09	0.284	0.371
	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Front	15mm	Full	600	1880	23.61	24.80	1.315	-0.1	0.434	0.571
	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	600	1880	23.61	24.80	1.315	0.12	0.442	0.581
	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	25	1851.25	23.46	24.80	1.361	-0.16	0.420	0.572
71	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	1175	1908.75	23.52	24.80	1.343	-0.07	0.471	<b>0.632</b>



<FDD LTE SAR>

Table with columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Test Position, Gap (mm), Power Reduction, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows include bands 71, 72, 73, 74, 75, and 76 with various test configurations.



# FCC SAR TEST REPORT

Report No. : FA061509-03

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 66_UAT	20M	QPSK	1	0	Front	15mm	Full	132322	1745	20.73	21.80	1.279	0.19	0.128	0.164
	LTE Band 66_UAT	20M	QPSK	1	0	Back	15mm	Full	132322	1745	20.73	21.80	1.279	0.17	0.178	0.228
	LTE Band 66_UAT	20M	QPSK	1	0	Back	15mm	Full	132072	1720	20.57	21.80	1.327	-0.11	0.155	0.206
	LTE Band 66_UAT	20M	QPSK	1	0	Back	15mm	Full	132572	1770	20.59	21.80	1.321	0.02	0.171	0.226
	LTE Band 66_UAT	20M	QPSK	50	0	Front	15mm	Full	132322	1745	19.71	20.80	1.285	-0.11	0.111	0.143
	LTE Band 66_UAT	20M	QPSK	50	0	Back	15mm	Full	132322	1745	19.71	20.80	1.285	0.02	0.145	0.186
	LTE Band 66_LAT	20M	QPSK	1	0	Front	15mm	Full	132322	1745	22.55	23.80	1.334	0.18	0.408	0.544
77	LTE Band 66_LAT	20M	QPSK	1	0	Back	15mm	Full	132322	1745	22.55	23.80	1.334	0.04	0.477	0.636
	LTE Band 66_LAT	20M	QPSK	1	0	Back	15mm	Full	132072	1720	22.35	23.80	1.396	-0.17	0.451	0.630
	LTE Band 66_LAT	20M	QPSK	1	0	Back	15mm	Full	132572	1770	22.44	23.80	1.368	-0.03	0.462	0.632
	LTE CA_66C_LAT	15M	QPSK	1	0	Back	15mm	Full	132322(PCC)+132124(SCC)	1745(PCC)+1725.2(SCC)	22.34	22.80	1.112	0.03	0.327	0.364
	LTE CA_66C_LAT	15M	QPSK	1	0	Back	15mm	Full	132072(PCC)+132270(SCC)	1720(PCC)+1739.8(SCC)	22.25	22.80	1.135	0.07	0.388	0.440
	LTE CA_66C_LAT	15M	QPSK	1	0	Back	15mm	Full	132572(PCC)+132374(SCC)	1770(PCC)+1750.2(SCC)	22.24	22.80	1.138	0.12	0.313	0.356
	LTE Band 66_LAT	20M	QPSK	50	0	Front	15mm	Full	132322	1745	21.56	22.80	1.330	-0.16	0.334	0.444
	LTE Band 66_LAT	20M	QPSK	50	0	Back	15mm	Full	132322	1745	21.56	22.80	1.330	-0.1	0.386	0.514
EN-DC																
	LTE Band 66_Ant0	20M	QPSK	1	0	Front	15mm	Full	132322	1745	23.04	23.80	1.191	-0.02	0.099	0.118
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	15mm	Full	132322	1745	23.04	23.80	1.191	-0.08	0.247	0.294
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	15mm	Full	132072	1720	22.88	23.80	1.236	-0.02	0.176	0.218
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	15mm	Full	132572	1770	23.00	23.80	1.202	0.01	0.323	0.388
	LTE Band 66_Ant0	20M	QPSK	50	0	Front	15mm	Full	132322	1745	22.15	22.80	1.161	0.01	0.080	0.093
	LTE Band 66_Ant0	20M	QPSK	50	0	Back	15mm	Full	132322	1745	22.15	22.80	1.161	0	0.210	0.244
	LTE Band 25_UAT	20M	QPSK	1	0	Front	15mm	Full	26340	1880	20.76	21.80	1.271	-0.14	0.235	0.299
	LTE Band 25_UAT	20M	QPSK	1	0	Back	15mm	Full	26340	1880	20.76	21.80	1.271	0.13	0.281	0.357
	LTE Band 25_UAT	20M	QPSK	1	0	Back	15mm	Full	26140	1860	20.74	21.80	1.276	-0.19	0.287	0.366
	LTE Band 25_UAT	20M	QPSK	1	0	Back	15mm	Full	26590	1905	20.70	21.80	1.288	-0.14	0.266	0.343
	LTE Band 25_UAT	20M	QPSK	50	24	Front	15mm	Full	26340	1880	19.80	20.80	1.259	-0.02	0.185	0.233
	LTE Band 25_UAT	20M	QPSK	50	24	Back	15mm	Full	26340	1880	19.80	20.80	1.259	-0.13	0.227	0.286
	LTE Band 25_LAT	20M	QPSK	1	0	Front	15mm	Full	26340	1880	22.47	23.80	1.358	0.08	0.407	0.553
	LTE Band 25_LAT	20M	QPSK	1	0	Back	15mm	Full	26340	1880	22.47	23.80	1.358	-0.15	0.446	0.606
78	LTE Band 25_LAT	20M	QPSK	1	0	Back	15mm	Full	26140	1860	22.42	23.80	1.374	-0.03	0.460	0.632
	LTE Band 25_LAT	20M	QPSK	1	0	Back	15mm	Full	26590	1905	22.41	23.80	1.377	-0.06	0.429	0.591
	LTE Band 25_LAT	20M	QPSK	50	24	Front	15mm	Full	26340	1880	21.54	22.80	1.337	0.14	0.332	0.444
	LTE Band 25_LAT	20M	QPSK	50	24	Back	15mm	Full	26340	1880	21.54	22.80	1.337	-0.17	0.364	0.487
EN-DC																
	LTE Band 2_Ant0	20M	QPSK	1	0	Front	15mm	Full	18900	1880	22.95	23.80	1.216	0.1	0.084	0.102
	LTE Band 2_Ant0	20M	QPSK	1	0	Back	15mm	Full	18900	1880	22.95	23.80	1.216	0	0.244	0.297
	LTE Band 2_Ant0	20M	QPSK	1	0	Back	15mm	Full	18700	1860	22.87	23.80	1.239	-0.08	0.304	0.377
	LTE Band 2_Ant0	20M	QPSK	1	0	Back	15mm	Full	19100	1900	22.88	23.80	1.236	0.01	0.250	0.309
	LTE Band 2_Ant0	20M	QPSK	50	0	Front	15mm	Full	18900	1880	22.05	22.80	1.189	0.07	0.079	0.094
	LTE Band 2_Ant0	20M	QPSK	50	0	Back	15mm	Full	18900	1880	22.05	22.80	1.189	0.04	0.215	0.256





Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 30_UAT	10M	QPSK	1	0	Front	15mm	Full	27710	2310	20.46	21.50	1.271	0.04	0.182	0.231
	LTE Band 30_UAT	10M	QPSK	1	0	Back	15mm	Full	27710	2310	20.46	21.50	1.271	0.01	0.204	0.259
	LTE Band 30_UAT	10M	QPSK	25	12	Front	15mm	Full	27710	2310	19.47	20.50	1.268	0.01	0.139	0.176
	LTE Band 30_UAT	10M	QPSK	25	12	Back	15mm	Full	27710	2310	19.47	20.50	1.268	-0.05	0.153	0.194
	LTE Band 30_LAT	10M	QPSK	1	0	Front	15mm	Full	27710	2310	22.41	23.80	1.377	-0.11	0.437	0.602
79	LTE Band 30_LAT	10M	QPSK	1	0	Back	15mm	Full	27710	2310	22.41	23.80	1.377	-0.09	0.531	<b>0.731</b>
	LTE Band 30_LAT	10M	QPSK	25	12	Front	15mm	Full	27710	2310	21.48	22.80	1.355	0.11	0.353	0.478
	LTE Band 30_LAT	10M	QPSK	25	12	Back	15mm	Full	27710	2310	21.48	22.80	1.355	-0.08	0.439	0.595
	LTE Band 7_UAT	20M	QPSK	1	99	Front	15mm	Full	21350	2560	20.61	20.80	1.045	-0.19	0.204	0.213
	LTE Band 7_UAT	20M	QPSK	1	99	Back	15mm	Full	21350	2560	20.61	20.80	1.045	-0.11	0.325	0.340
	LTE Band 7_UAT	20M	QPSK	1	99	Back	15mm	Full	20850	2510	20.52	20.80	1.067	0.15	0.363	0.387
	LTE Band 7_UAT	20M	QPSK	1	99	Back	15mm	Full	21100	2535	20.57	20.80	1.054	-0.08	0.386	0.407
	LTE Band 7_UAT	20M	QPSK	50	24	Front	15mm	Full	21350	2560	19.76	19.80	1.009	0.02	0.160	0.161
	LTE Band 7_UAT	20M	QPSK	50	24	Back	15mm	Full	21350	2560	19.76	19.80	1.009	-0.09	0.269	0.271
	LTE Band 7_LAT	20M	QPSK	1	99	Front	15mm	Full	21350	2560	22.61	23.80	1.315	-0.19	0.375	0.493
80	LTE Band 7_LAT	20M	QPSK	1	99	Back	15mm	Full	21350	2560	22.61	23.80	1.315	-0.17	0.493	<b>0.648</b>
	LTE Band 7_LAT	20M	QPSK	1	99	Back	15mm	Full	20850	2510	22.33	23.80	1.403	-0.06	0.426	0.598
	LTE Band 7_LAT	20M	QPSK	1	99	Back	15mm	Full	21100	2535	22.53	23.80	1.340	0.01	0.464	0.622
	LTE Band 7_LAT	20M	QPSK	50	24	Front	15mm	Full	21350	2560	21.67	22.80	1.297	0.02	0.305	0.396
	LTE Band 7_LAT	20M	QPSK	50	24	Back	15mm	Full	21350	2560	21.67	22.80	1.297	0.02	0.389	0.505





Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 48_UAT	20M	QPSK	1	0	Front	15mm	Full	56640	3690	22.96	23.80	1.213	62.9	1.006	0.13	0.242	0.295
	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	56640	3690	22.96	23.80	1.213	62.9	1.006	0.04	0.585	0.714
83	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	55340	3560	22.56	23.80	1.330	62.9	1.006	0.1	0.621	0.831
	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	55830	3609	22.80	23.80	1.259	62.9	1.006	-0.19	0.619	0.784
	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	56150	3641	22.89	23.80	1.233	62.9	1.006	0.02	0.614	0.762
	LTE Band 48_UAT	20M	QPSK	50	24	Front	15mm	Full	56640	3690	22.06	22.80	1.186	62.9	1.006	-0.19	0.109	0.130
	LTE Band 48_UAT	20M	QPSK	50	24	Back	15mm	Full	56640	3690	22.06	22.80	1.186	62.9	1.006	-0.1	0.372	0.444
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	15mm	Full	56640(PCC)+56442(SCC)	3690(PCC)+3670.2(SCC)	19.16	20.80	1.459	62.9	1.006	0.02	0.206	0.302
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	15mm	Full	55340(PCC)+55538(SCC)	3560(PCC)+3579.8(SCC)	18.88	20.80	1.556	62.9	1.006	0.07	0.202	0.316
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	15mm	Full	55830(PCC)+55632(SCC)	3609(PCC)+3589.2(SCC)	19.13	20.80	1.469	62.9	1.006	0.13	0.198	0.293
	LTE CA_48C_UAT	20M	QPSK	50	24	Back	15mm	Full	56150(PCC)+55952(SCC)	3641(PCC)+3621.2(SCC)	19.10	20.80	1.479	62.9	1.006	0.06	0.184	0.274
	LTE Band 48_UAT	20M	QPSK	100	0	Back	15mm	Full	56640	3690	22.03	22.80	1.194	62.9	1.006	0.02	0.368	0.442



<5G NR SA SAR>

Table with 18 columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Power Reduction, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Rows include test data for antennas SA N71\_Ant0-1, SA N66\_Ant2-3, SA N2\_Ant2-3, and SA N25\_Ant2-3.

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	19.80	21.00	1.318	0.15	0.066	0.087
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	19.80	21.00	1.318	-0.14	0.107	0.141
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	19.68	21.00	1.355	0.15	0.069	0.094
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	19.68	21.00	1.355	0.09	0.121	0.164
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	19.64	21.00	1.368	0.07	0.124	0.170
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	19.59	21.00	1.384	-0.13	0.122	0.169
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	23.12	24.00	1.225	-0.02	0.109	0.133
	SA N41_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	23.12	24.00	1.225	-0.06	0.123	0.151
	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	23.07	24.00	1.239	-0.1	0.123	0.152
	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	23.07	24.00	1.239	-0.02	0.160	0.198
	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	23.03	24.00	1.250	0.07	0.154	0.193
88	SA N41_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	23.01	24.00	1.256	0.16	0.180	<b>0.226</b>
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	21.74	23.00	1.337	0.19	0.074	0.099
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	21.74	23.00	1.337	-0.16	0.148	0.198
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	21.66	23.00	1.361	0.15	0.089	0.121
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	21.66	23.00	1.361	0.12	0.159	0.216
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	21.59	23.00	1.384	-0.09	0.169	0.234
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	21.55	23.00	1.396	0.14	0.212	0.296
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	25.12	26.00	1.225	-0.06	0.153	0.187
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	25.12	26.00	1.225	0.08	0.208	0.255
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	25.08	26.00	1.236	-0.14	0.173	0.214
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	25.08	26.00	1.236	0.07	0.234	0.289
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	25.03	26.00	1.250	0.05	0.222	0.278
89	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	24.98	26.00	1.265	-0.14	0.276	<b>0.349</b>

**<5G NR NSA SAR>**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Front	15mm	Full	167300	836.5	22.55	23.30	1.189	0.01	0.258	0.307
	NSA N5_Ant0	20M	PI/2 BPSK	1	53	DFT-15	Back	15mm	Full	167300	836.5	22.55	23.30	1.189	-0.17	0.224	0.266
90	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Front	15mm	Full	167300	836.5	22.36	23.30	1.242	0.02	0.268	<b>0.333</b>
	NSA N5_Ant0	20M	PI/2 BPSK	50	28	DFT-15	Back	15mm	Full	167300	836.5	22.36	23.30	1.242	0.06	0.225	0.279
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Front	15mm	Full	167300	836.5	23.31	23.80	1.119	0.02	0.184	0.206
	NSA N5_Ant1	20M	PI/2 BPSK	1	53	DFT-15	Back	15mm	Full	167300	836.5	23.31	23.80	1.119	-0.1	0.232	0.260
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Front	15mm	Full	167300	836.5	23.07	23.80	1.183	0.07	0.171	0.202
	NSA N5_Ant1	20M	PI/2 BPSK	50	28	DFT-15	Back	15mm	Full	167300	836.5	23.07	23.80	1.183	-0.07	0.271	0.321



<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 1	Full	39	2441	9.3	11.3	1.585	76.9	1.083	0.08	0.019	0.032
91	Bluetooth	DH5 1Mbps	Back	15mm	Ant 1	Full	39	2441	9.3	11.3	1.585	76.9	1.083	0.09	0.028	0.048
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 1	Full	0	2402	8.4	10.4	1.585	76.9	1.083	0.03	0.021	0.037
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 1	Full	78	2480	8.4	10.4	1.585	76.9	1.083	0.16	0.019	0.032

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 1+2	Reduced power level 1	1	2412	22.34	24.34	1.585	98.35	1.017	-0.19	0.100	0.161
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 1	1	2412	22.34	24.34	1.585	98.35	1.017	0.12	0.388	0.625
92	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 1	6	2437	22.31	24.31	1.585	98.35	1.017	0.1	0.452	0.729
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 1	11	2462	22.17	24.17	1.585	98.35	1.017	-0.12	0.412	0.664
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	0.16	0.040	0.065
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	0.08	0.143	0.230
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 2/3	6	2437	18.31	20.31	1.585	98.35	1.017	0.19	0.179	0.289
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 2/3	11	2462	18.17	20.17	1.585	98.35	1.017	0.02	0.161	0.260
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	0.01	0.022	0.035
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	-0.13	0.071	0.114
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 4	6	2437	15.31	17.31	1.585	98.35	1.017	0.11	0.088	0.141
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Reduced power level 4	11	2462	15.17	17.17	1.585	98.35	1.017	-0.16	0.079	0.127



<WLAN5G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN5.3GHz	802.11a 6Mbps	Front	15mm	Ant 1+2	Reduced power level 1	56	5280	21.03	23.03	1.585	98.63	1.014	0.02	0.094	0.151
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 1	56	5280	21.03	23.03	1.585	98.63	1.014	-0.13	0.352	0.566
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 1	52	5260	20.74	22.74	1.585	98.63	1.014	0.16	0.334	0.537
93	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 1	60	5300	20.60	22.60	1.585	98.63	1.014	0.02	0.410	0.659
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 1	64	5320	20.54	22.54	1.585	98.63	1.014	-0.08	0.370	0.595
	WLAN5.3GHz	802.11a 6Mbps	Front	15mm	Ant 1+2	Reduced power level 2/3	56	5280	17.03	19.03	1.585	98.63	1.014	0.18	0.038	0.061
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 2/3	56	5280	17.03	19.03	1.585	98.63	1.014	-0.17	0.136	0.219
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 2/3	52	5260	16.74	18.74	1.585	98.63	1.014	-0.13	0.122	0.196
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 2/3	60	5300	16.60	18.60	1.585	98.63	1.014	0.06	0.152	0.244
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 2/3	64	5320	16.54	18.54	1.585	98.63	1.014	-0.15	0.148	0.238
	WLAN5.3GHz	802.11a 6Mbps	Front	15mm	Ant 1+2	Reduced power level 4	56	5280	14.03	16.03	1.585	98.63	1.014	-0.17	0.020	0.032
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 4	56	5280	14.03	16.03	1.585	98.63	1.014	0.18	0.067	0.108
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 4	52	5260	13.74	15.74	1.585	98.63	1.014	0.09	0.063	0.101
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 4	60	5300	13.6	15.6	1.585	98.63	1.014	0.1	0.076	0.121
	WLAN5.3GHz	802.11a 6Mbps	Back	15mm	Ant 1+2	Reduced power level 4	64	5320	13.54	15.54	1.585	98.63	1.014	-0.04	0.072	0.116
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	Reduced power level 1	102	5510	20.98	22.98	1.585	100	1.000	0.03	0.102	0.162
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 1	102	5510	20.98	22.98	1.585	100	1.000	0.15	0.458	0.726
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 1	110	5550	20.54	22.54	1.585	100	1.000	-0.15	0.445	0.705
94	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 1	126	5630	20.97	22.97	1.585	100	1.000	0.1	0.469	0.743
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 1	134	5670	20.63	22.63	1.585	100	1.000	-0.14	0.427	0.677
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 1	142	5710	20.50	22.50	1.585	100	1.000	0	0.349	0.553
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	Reduced power level 2/3	102	5510	16.98	18.98	1.585	100	1.000	0.01	0.042	0.067
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 2/3	102	5510	16.98	18.98	1.585	100	1.000	-0.14	0.183	0.290
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 2/3	110	5550	16.54	18.54	1.585	100	1.000	-0.11	0.178	0.282
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 2/3	126	5630	16.97	18.97	1.585	100	1.000	-0.05	0.195	0.309
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 2/3	134	5670	16.63	18.63	1.585	100	1.000	-0.1	0.167	0.265
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 2/3	142	5710	16.5	18.5	1.585	100	1.000	0.15	0.150	0.238
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	Reduced power level 4	102	5510	13.98	15.98	1.585	100	1.000	-0.06	0.022	0.035
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 4	102	5510	13.98	15.98	1.585	100	1.000	0.14	0.092	0.146
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 4	110	5550	13.54	15.54	1.585	100	1.000	-0.13	0.090	0.143
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 4	126	5630	13.97	15.97	1.585	100	1.000	-0.13	0.098	0.155
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 4	134	5670	13.63	15.63	1.585	100	1.000	0.18	0.085	0.135
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 4	142	5710	13.5	15.5	1.585	100	1.000	0.19	0.076	0.120
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	Reduced power level 1	151	5755	20.69	22.69	1.585	100	1.000	0.14	0.084	0.134
95	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 1	151	5755	20.69	22.69	1.585	100	1.000	0.1	0.314	0.498
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 1	159	5795	20.61	22.61	1.585	100	1.000	0.14	0.287	0.455
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	Reduced power level 2/3	151	5755	20.69	22.69	1.585	100	1.000	0.12	0.084	0.134
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 2/3	151	5755	20.69	22.69	1.585	100	1.000	0.03	0.314	0.498
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 2/3	159	5795	20.61	22.61	1.585	100	1.000	0.04	0.287	0.455
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 1+2	Reduced power level 4	151	5755	17.69	19.69	1.585	100	1.000	0.08	0.044	0.070
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 4	151	5755	17.69	19.69	1.585	100	1.000	-0.07	0.151	0.239
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 1+2	Reduced power level 4	159	5795	17.61	19.61	1.585	100	1.000	-0.1	0.143	0.227



**19.4 Product Specific SAR**

**<WCDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WCDMA IV_LAT	RMC 12.2Kbps	Back	0mm	Reduced	1513	1752.6	20.01	21.00	1.256	0.03	1.630	2.047
96	WCDMA IV_LAT	RMC 12.2Kbps	Back	0mm	Reduced	1312	1712.4	19.84	21.00	1.306	0.08	1.660	2.168
	WCDMA IV_LAT	RMC 12.2Kbps	Back	0mm	Reduced	1413	1732.6	20.00	21.00	1.259	-0.05	1.700	2.140
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	0mm	Reduced	1513	1752.6	20.01	21.00	1.256	0.01	1.200	1.507
	WCDMA IV_LAT	RMC 12.2Kbps	Back	7mm	Full	1513	1752.6	23.73	24.80	1.279	0.05	0.834	1.067
	WCDMA IV_LAT	RMC 12.2Kbps	Back	7mm	Full	1312	1712.4	23.61	24.80	1.315	0.15	0.915	1.203
	WCDMA IV_LAT	RMC 12.2Kbps	Back	7mm	Full	1413	1732.6	23.70	24.80	1.288	0.06	0.848	1.092
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	8mm	Full	1513	1752.6	23.73	24.80	1.279	0.09	0.772	0.988
	WCDMA II_LAT	RMC 12.2Kbps	Back	0mm	Reduced	9400	1880	19.75	20.90	1.303	0.02	1.690	2.202
	WCDMA II_LAT	RMC 12.2Kbps	Back	0mm	Reduced	9262	1852.4	19.70	20.90	1.318	0.04	1.710	2.254
97	WCDMA II_LAT	RMC 12.2Kbps	Back	0mm	Reduced	9538	1907.6	19.67	20.90	1.327	0.09	1.750	2.323
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	0mm	Reduced	9400	1880	19.75	20.90	1.303	0.04	1.630	2.124
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	0mm	Reduced	9262	1852.4	19.70	20.90	1.318	-0.05	1.460	1.925
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	0mm	Reduced	9538	1907.6	19.67	20.90	1.327	0.04	1.560	2.071
	WCDMA II_LAT	RMC 12.2Kbps	Back	7mm	Full	9400	1880	23.67	24.80	1.297	-0.06	0.765	0.992
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	8mm	Full	9400	1880	23.67	24.80	1.297	0.02	0.926	1.201
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	8mm	Full	9262	1852.4	23.62	24.80	1.312	0.11	0.925	1.214
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	8mm	Full	9538	1907.6	23.65	24.80	1.303	0.05	0.960	1.251

**<CDMA SAR>**

Plot No.	Band	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Left Side	0mm	Full	384	836.52	22.91	24.30	1.377	0.07	0.587	0.808
98	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Left Side	0mm	Full	1013	824.7	22.81	24.30	1.409	0.03	0.672	0.947
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Left Side	0mm	Full	777	848.31	22.54	24.30	1.500	0.19	0.621	0.931
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Left Side	0mm	Full	580	820.5	22.89	24.30	1.384	0.17	0.716	0.991
99	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Left Side	0mm	Full	476	817.9	22.82	24.30	1.406	0.12	0.737	1.036
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Left Side	0mm	Full	684	823.1	22.81	24.30	1.409	0.09	0.699	0.985
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	0mm	Reduced	600	1880	20.46	21.60	1.300	0.03	1.790	2.327
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	0mm	Reduced	25	1851.25	20.39	21.60	1.321	-0.02	1.790	2.365
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	0mm	Reduced	1175	1908.75	20.44	21.60	1.306	0.01	1.770	2.312
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	0mm	Reduced	600	1880	20.46	21.60	1.300	0.09	1.660	2.158
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	0mm	Reduced	25	1851.25	20.39	21.60	1.321	0.16	1.790	2.365
100	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	0mm	Reduced	1175	1908.75	20.44	21.60	1.306	-0.14	1.930	2.521
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	7mm	Full	600	1880	23.57	24.80	1.327	0.04	0.623	0.827
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	8mm	Full	600	1880	23.57	24.80	1.327	0.08	0.724	0.961
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	8mm	Full	25	1851.25	23.51	24.80	1.346	0.05	0.772	1.039
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	8mm	Full	1175	1908.75	23.53	24.80	1.340	-0.09	0.733	0.982







<5G NR SA SAR>

Table with 18 columns: Plot No., Band, BW (MHz), Modulation, RB Size, RB offset, Mode, Test Position, Gap (mm), Power Reduction, Ch., Freq. (MHz), Average Power (dBm), Tune-Up Limit (dBm), Tune-up Scaling Factor, Power Drift (dB), Measured 10g SAR (W/kg), Reported 10g SAR (W/kg). Rows include SA N66, SA N2, and SA N25 antennas with various configurations.



	SA N25_Ant3	20M	PI/2 BPSK	50	28	DFT-15	Bottom Side	8mm	Full	376000	1880	22.87	23.80	1.239	0.12	0.731	0.906
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Top Side	0mm	Full	518598	2592.99	19.80	21.00	1.318	-0.13	1.610	2.122
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Top Side	0mm	Full	509202	2546.01	19.75	21.00	1.334	0.04	1.640	2.187
	SA N41_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Top Side	0mm	Full	528000	2640	19.72	21.00	1.343	-0.18	1.820	2.444
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Top Side	0mm	Full	518598	2592.99	19.68	21.00	1.355	-0.01	1.580	2.141
	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Top Side	0mm	Full	509202	2546.01	19.64	21.00	1.368	-0.04	1.620	2.216
109	SA N41_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Top Side	0mm	Full	528000	2640	19.59	21.00	1.384	-0.16	1.810	2.504
	SA N41_Ant2	100M	PI/2 BPSK	100	0	DFT-30	Top Side	0mm	Full	518598	2592.99	19.65	21.00	1.365	0.05	1.480	2.020
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	1	1	DFT-30	Top Side	0mm	Full	518598	2592.99	21.74	23.00	1.337	0.19	1.480	1.978
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Top Side	0mm	Full	518598	2592.99	21.66	23.00	1.361	-0.07	1.550	2.110
	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Top Side	0mm	Full	509202	2546.01	21.59	23.00	1.384	-0.17	1.690	2.338
110	SA N41(HPUE)_Ant2	100M	PI/2 BPSK	135	69	DFT-30	Top Side	0mm	Full	528000	2640	21.55	23.00	1.396	0.19	1.750	2.444
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Back	0mm	Reduced	518598	2592.99	19.88	20.80	1.236	0.15	1.670	2.064
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Back	0mm	Reduced	509202	2546.01	19.76	20.80	1.271	0.04	1.820	2.312
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Back	0mm	Reduced	528000	2640	19.81	20.80	1.256	0.01	1.830	2.299
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Bottom Side	0mm	Reduced	518598	2592.99	19.88	20.80	1.236	-0.08	1.210	1.495
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	0mm	Reduced	518598	2592.99	19.85	20.80	1.245	0.13	1.650	2.053
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	0mm	Reduced	509202	2546.01	19.73	20.80	1.279	-0.01	1.780	2.277
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	0mm	Reduced	528000	2640	19.78	20.80	1.265	0.01	1.800	2.277
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Bottom Side	0mm	Reduced	518598	2592.99	19.85	20.80	1.245	0	1.190	1.481
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Back	7mm	Full	518598	2592.99	25.12	26.00	1.225	0.05	0.411	0.503
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	1	1	DFT-30	Bottom Side	8mm	Full	518598	2592.99	25.12	26.00	1.225	0.08	0.326	0.399
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	7mm	Full	518598	2592.99	25.08	26.00	1.236	-0.02	0.449	0.555
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	7mm	Full	509202	2546.01	25.03	26.00	1.250	0.09	0.437	0.546
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Back	7mm	Full	528000	2640	24.98	26.00	1.265	0.12	0.462	0.584
	SA N41(HPUE)_Ant3	100M	PI/2 BPSK	135	69	DFT-30	Bottom Side	8mm	Full	518598	2592.99	25.08	26.00	1.236	0.05	0.352	0.435

<WLAN2.4G SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 1	1	2412	22.34	24.34	1.585	98.35	1.017	-0.12	1.130	1.821
111	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 1	6	2437	22.31	24.31	1.585	98.35	1.017	0.09	1.460	2.353
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 1	11	2462	22.17	24.17	1.585	98.35	1.017	-0.07	1.320	2.128
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 2/3	1	2412	18.34	20.34	1.585	98.35	1.017	0.18	0.437	0.704
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 2/3	6	2437	18.31	20.31	1.585	98.35	1.017	0.15	0.559	0.901
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 2/3	11	2462	18.17	20.17	1.585	98.35	1.017	0.04	0.523	0.843
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 4	1	2412	15.34	17.34	1.585	98.35	1.017	0.03	0.243	0.392
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 4	6	2437	15.31	17.31	1.585	98.35	1.017	0.15	0.277	0.446
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 1+2	Reduced power level 4	11	2462	15.17	17.17	1.585	98.35	1.017	0.06	0.249	0.401
	WLAN2.4GHz	802.11b 1Mbps	Back	7mm	Ant 1+2	Full	1	2412	22.34	24.34	1.585	98.35	1.017	0.05	0.450	0.725
	WLAN2.4GHz	802.11b 1Mbps	Back	7mm	Ant 1+2	Full	6	2437	22.31	24.31	1.585	98.35	1.017	0.12	0.555	0.895
	WLAN2.4GHz	802.11b 1Mbps	Back	7mm	Ant 1+2	Full	11	2462	22.17	24.17	1.585	98.35	1.017	-0.03	0.525	0.846



**19.5 Repeated SAR Measurement**

<1g>

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WCDMA V_UAT					RMC 12.2Kbps	Left Cheek	0mm	power level 1	4132	826.4	21.87	22.60	1.183	0.08	0.812	1	0.961
2nd	WCDMA V_UAT					RMC 12.2Kbps	Left Cheek	0mm	power level 1	4132	826.4	21.87	22.60	1.183	0.03	0.808	1.005	0.956
1st	WCDMA IV_UAT					RMC 12.2Kbps	Right Tilted	0mm	power level 1	1513	1752.6	17.80	18.70	1.230	-0.17	0.888	1	1.092
2nd	WCDMA IV_UAT					RMC 12.2Kbps	Right Tilted	0mm	power level 1	1513	1752.6	17.80	18.70	1.230	-0.13	0.875	1.015	1.076
1st	WCDMA II_UAT					RMC 12.2Kbps	Right Tilted	0mm	power level 1	9538	1907.6	17.57	18.50	1.239	-0.09	0.871	1	1.079
2nd	WCDMA II_UAT					RMC 12.2Kbps	Right Tilted	0mm	power level 1	9538	1907.6	17.57	18.50	1.239	-0.06	0.866	1.006	1.073
1st	LTE Band 12_UAT	10M	QPSK	25	25		Left Cheek	0mm	power level 1	23095	707.5	20.27	21.00	1.183	-0.03	0.876	1	1.036
2nd	LTE Band 12_UAT	10M	QPSK	25	25		Left Cheek	0mm	power level 1	23095	707.5	20.27	21.00	1.183	-0.05	0.868	1.009	1.027

<10g>

No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	N66_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Top Side	0mm	Full	349000	1745	20.84	21.80	1.247	0.16	2.060	1	2.570
2nd	N66_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Top Side	0mm	Full	349000	1745	20.84	21.80	1.247	0.12	1.980	1.040	2.470
1st	N25_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Top Side	0mm	Full	381000	1905	20.86	21.80	1.242	0	2.240	1	2.781
2nd	N25_Ant2	20M	PI/2 BPSK	50	28	DFT-15	Top Side	0mm	Full	381000	1905	20.86	21.80	1.242	0.03	2.160	1.037	2.682

**General Note:**

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is  $\geq 0.8W/kg$ .
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is  $\leq 1.2$  and the measured SAR  $< 1.45W/kg$ , only one repeated measurement is required.
3. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The ratio is the difference in percentage between original and repeated *measured SAR*.
5. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.



**20. Simultaneous Transmission Analysis**

NO.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product Specific
1.	GSM Voice + 2.4GHz WLAN MIMO	Yes	Yes		Yes
2.	GPRS/EDGE + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
3.	WCDMA + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
4.	LTE + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
5.	GSM Voice + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
6.	GPRS/EDGE + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
7.	WCDMA + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
8.	LTE + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
9.	GSM Voice + WLAN5.2/5.8GHz MIMO	Yes	Yes		Yes
10.	GPRS/EDGE + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
11.	WCDMA + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
12.	LTE + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
13.	GSM Voice + Bluetooth	Yes	Yes		Yes
14.	GPRS/EDGE + Bluetooth	Yes	Yes	Yes	Yes
15.	WCDMA + Bluetooth	Yes	Yes	Yes	Yes
16.	LTE + Bluetooth	Yes	Yes	Yes	Yes
17.	WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
18.	WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
19.	GSM Voice + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
20.	GPRS/EDGE + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
21.	WCDMA + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
22.	LTE + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
23.	GSM Voice + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes		Yes
24.	GPRS/EDGE + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
25.	WCDMA + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
26.	LTE + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
27.	WLAN5.3/5.5GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes		Yes
28.	WLAN5.2/5.8GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
29.	GSM Voice + WLAN5.3/5.5GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes		Yes
30.	GPRS/EDGE + WLAN5.3/5.5GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes		Yes
31.	WCDMA + WLAN5.3/5.5GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes		Yes
32.	LTE + WLAN5.3/5.5GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes		Yes
33.	GSM Voice + WLAN5.2/5.8GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes		Yes
34.	GPRS/EDGE + WLAN5.2/5.8GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
35.	WCDMA + WLAN5.2/5.8GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
36.	LTE + WLAN5.2/5.8GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
37.	LTE + 5G NR + WLAN5.3/5.5GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes		Yes
38.	LTE + 5G NR + WLAN5.2/5.8GHz MIMO + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
39.	5G NR + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
40.	LTE + 5G NR + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
41.	5G NR + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
42.	5G NR + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
43.	LTE + 5G NR + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
44.	LTE + 5G NR + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes



45.	5G NR + Bluetooth	Yes	Yes	Yes	Yes
46.	LTE + 5G NR + Bluetooth	Yes	Yes	Yes	Yes
47.	5G NR + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
48.	5G NR + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
49.	LTE + 5G NR + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
50.	LTE + 5G NR + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, CDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. EUT will choose each GSM, WCDMA, CDMA and LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
3. The 2.4GHz/5GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.
4. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
5. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only).
6. EUT will choose either WLAN 2.4GHz or WLAN 5GHz according to the network signal condition; therefore, 2.4GHz WLAN and 5GHz WLAN will not operate simultaneously at any moment though they have independent antenna.
7. 2.4GHz WLAN and Bluetooth share the same antenna, and cannot transmit simultaneously.
8. All licensed modes share the same antenna part and cannot transmit simultaneously.
9. According to the EUT character, WLAN 5GHz and Bluetooth can transmit simultaneously.
10. According to the EUT character, WLAN 5GHz and 2.4GHz WLAN can transmit simultaneously.
11. For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
12. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
13. The reported SAR summation is calculated based on the same configuration and test position.
14. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
  - i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
  - ii)  $SPLSR = (SAR1 + SAR2)^{1.5} / (\min. \text{separation distance, mm})$ , and the peak separation distance is determined from the square root of  $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$ , where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
  - iii) If  $SPLSR \leq 0.04$  for 1g SAR and  $SPLSR \leq 0.10$  for 10g SAR, simultaneously transmission SAR measurement is not necessary.
  - iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.



**20.1 5G NR + LTE + WLAN + BT Sim-Tx analysis**

In 5G NR + LTE + WLAN + BT simultaneous transmission, 5G NR and LTE transmission are managed and controlled by Qualcomm® Smart Transmit, while the RF exposure from WLAN and BT radios is managed using legacy approach, i.e., through a fixed power back-off if needed.

Since WLAN and BT do not employ time-averaging, 1gSAR and 10gSAR measurement for WLAN and BT need to be conducted at their corresponding rated power following current FCC test procedures to determine reported SAR values.

Smart Transmit current implementation assumes hotspots from 5G NR and LTE are collocated. Therefore, for a total of 100% exposure margin, if LTE uses x%, then the exposure margin left for 5G NR is capped to (100-x)%. Thus, the compliance equation for LTE + 5G NR is

$$x\% * A + (100-x)\% * B \leq 1.0,$$

Where, A is normalized reported time-averaged SAR exposure ratio from LTE, and  $A \leq 1.0$ ; B is normalized reported time-averaged exposure ratio from 5G NR (i.e., PD exposure for 5G FR2 or SAR exposure for 5G FR1), and  $B \leq 1.0$ .

Let C = normalized reported SAR exposure ratio from WLAN+BT, then for compliance,

$$x\% * A + (100-x)\% * B + C \leq 1.0 \quad (1)$$

$$x\% * A + (100-x)\% * B \leq x\% * \max(A, B) + (100-x)\% * \max(A, B) \leq \max(A, B)$$

$$x\% * A + (100-x)\% * B + C \leq \max(A, B) + C \leq 1.0 \quad (2)$$

if  $A + C \leq 1.0$  and  $B + C \leq 1.0$  can be proven, then " $x\% * A + (100-x)\% * B + C \leq 1.0$ ". Therefore simultaneous transmission analysis for 5G NR + LTE + WLAN + BT can be performed in two steps

- Step 1: Prove total exposure ratio (TER) of LTE + WLAN + BT < 1
- Step 2: Prove total exposure ratio (TER) of 5G NR + WLAN + BT < 1

Above analysis is also apply to LTE inter band uplink, LTE + LTE + WLAN + BT simultaneous transmission, So inter band CA uplink no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of LTE + WLAN + BT < 1.





**20.2 Head Exposure Conditions**

WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)		
GSM	GSM850_UAT	Right Cheek	0.747	0.287	0.219	0.119	0.87	0.34
		Right Tilted	0.135	0.311	0.186	0.130	0.27	0.32
		Left Cheek	1.033	0.820	0.941	0.256	1.29	1.20
		Left Tilted	0.130	0.574	0.718	0.180	0.31	0.90
	GSM1900_UAT	Right Cheek	0.590	0.287	0.219	0.119	0.71	0.34
		Right Tilted	0.700	0.311	0.186	0.130	0.83	0.32
		Left Cheek	0.321	0.820	0.941	0.256	0.58	1.20
		Left Tilted	0.393	0.574	0.718	0.180	0.57	0.90
WCDMA	WCDMA V_UAT	Right Cheek	0.631	0.287	0.219	0.119	0.75	0.34
		Right Tilted	0.147	0.311	0.186	0.130	0.28	0.32
		Left Cheek	0.961	0.820	0.941	0.256	1.22	1.20
		Left Tilted	0.169	0.574	0.718	0.180	0.35	0.90
	WCDMA IV_UAT	Right Cheek	0.794	0.287	0.219	0.119	0.91	0.34
		Right Tilted	1.092	0.311	0.186	0.130	1.22	0.32
		Left Cheek	0.449	0.820	0.941	0.256	0.71	1.20
		Left Tilted	0.647	0.574	0.718	0.180	0.83	0.90
	WCDMA II_UAT	Right Cheek	0.782	0.287	0.219	0.119	0.90	0.34
		Right Tilted	1.079	0.311	0.186	0.130	1.21	0.32
		Left Cheek	0.493	0.820	0.941	0.256	0.75	1.20
		Left Tilted	0.653	0.574	0.718	0.180	0.83	0.90
CDMA	CDMA2000 BC0_UAT	Right Cheek	0.605	0.287	0.219	0.119	0.72	0.34
		Right Tilted	0.140	0.311	0.186	0.130	0.27	0.32
		Left Cheek	0.919	0.820	0.941	0.256	1.18	1.20
		Left Tilted	0.159	0.574	0.718	0.180	0.34	0.90
	CDMA2000 BC10_UAT	Right Cheek	0.675	0.287	0.219	0.119	0.79	0.34
		Right Tilted	0.114	0.311	0.186	0.130	0.24	0.32
		Left Cheek	0.949	0.820	0.941	0.256	1.21	1.20
		Left Tilted	0.144	0.574	0.718	0.180	0.32	0.90
	CDMA2000 BC1_UAT	Right Cheek	0.718	0.287	0.219	0.119	0.84	0.34
		Right Tilted	0.887	0.311	0.186	0.130	1.02	0.32
		Left Cheek	0.402	0.820	0.941	0.256	0.66	1.20
		Left Tilted	0.505	0.574	0.718	0.180	0.69	0.90
LTE	LTE Band 71_UAT	Right Cheek	0.736	0.287	0.219	0.119	0.86	0.34
		Right Tilted	0.174	0.311	0.186	0.130	0.30	0.32
		Left Cheek	0.952	0.820	0.941	0.256	1.21	1.20
		Left Tilted	0.188	0.574	0.718	0.180	0.37	0.90
	LTE Band 12_UAT	Right Cheek	0.834	0.287	0.219	0.119	0.95	0.34
		Right Tilted	0.166	0.311	0.186	0.130	0.30	0.32
		Left Cheek	1.036	0.820	0.941	0.256	1.29	1.20
		Left Tilted	0.185	0.574	0.718	0.180	0.37	0.90
	LTE Band 13_UAT	Right Cheek	0.700	0.287	0.219	0.119	0.82	0.34
		Right Tilted	0.142	0.311	0.186	0.130	0.27	0.32
		Left Cheek	0.956	0.820	0.941	0.256	1.21	1.20
		Left Tilted	0.160	0.574	0.718	0.180	0.34	0.90
	LTE Band 5_UAT	Right Cheek	0.642	0.287	0.219	0.119	0.76	0.34
		Right Tilted	0.129	0.311	0.186	0.130	0.26	0.32
		Left Cheek	0.912	0.820	0.941	0.256	1.17	1.20
		Left Tilted	0.142	0.574	0.718	0.180	0.32	0.90
	LTE Band 26_UAT	Right Cheek	0.744	0.287	0.219	0.119	0.86	0.34
		Right Tilted	0.136	0.311	0.186	0.130	0.27	0.32
		Left Cheek	1.026	0.820	0.941	0.256	1.28	1.20



	LTE Band 66_UAT	Left Tilted	0.141	0.574	0.718	0.180	0.32	0.90
		Right Cheek	0.678	0.287	0.219	0.119	0.80	0.34
		Right Tilted	0.910	0.311	0.186	0.130	1.04	0.32
		Left Cheek	0.374	0.820	0.941	0.256	0.63	1.20
		Left Tilted	0.466	0.574	0.718	0.180	0.65	0.90
	LTE Band 25_UAT	Right Cheek	0.860	0.287	0.219	0.119	0.98	0.34
		Right Tilted	1.006	0.311	0.186	0.130	1.14	0.32
		Left Cheek	0.509	0.820	0.941	0.256	0.77	1.20
		Left Tilted	0.605	0.574	0.718	0.180	0.79	0.90
	LTE Band 30_UAT	Right Cheek	0.816	0.287	0.219	0.119	0.94	0.34
		Right Tilted	1.007	0.311	0.186	0.130	1.14	0.32
		Left Cheek	0.457	0.820	0.941	0.256	0.71	1.20
		Left Tilted	0.526	0.574	0.718	0.180	0.71	0.90
	LTE Band 7_UAT	Right Cheek	0.483	0.287	0.219	0.119	0.60	0.34
		Right Tilted	0.667	0.311	0.186	0.130	0.80	0.32
		Left Cheek	0.237	0.820	0.941	0.256	0.49	1.20
		Left Tilted	0.286	0.574	0.718	0.180	0.47	0.90
	LTE Band 41_UAT	Right Cheek	0.279	0.287	0.219	0.119	0.40	0.34
		Right Tilted	0.585	0.311	0.186	0.130	0.72	0.32
		Left Cheek	0.221	0.820	0.941	0.256	0.48	1.20
		Left Tilted	0.306	0.574	0.718	0.180	0.49	0.90
	LTE Band 41(HPUE)_UAT	Right Cheek	0.394	0.287	0.219	0.119	0.51	0.34
		Right Tilted	0.559	0.311	0.186	0.130	0.69	0.32
		Left Cheek	0.197	0.820	0.941	0.256	0.45	1.20
		Left Tilted	0.273	0.574	0.718	0.180	0.45	0.90
	LTE Band 48_UAT	Right Cheek	0.871	0.287	0.219	0.119	0.99	0.34
		Right Tilted	1.014	0.311	0.186	0.130	1.14	0.32
		Left Cheek	0.349	0.820	0.941	0.256	0.61	1.20
Left Tilted		0.371	0.574	0.718	0.180	0.55	0.90	



WWAN Band		Exposure Position	1	2	4	1+2 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_UAT	Right Cheek	0.670	0.129	0.086	0.80	0.22
		Right Tilted	0.124	0.139	0.074	0.26	0.21
		Left Cheek	0.914	0.367	0.391	1.28	0.76
		Left Tilted	0.113	0.184	0.269	0.30	0.45
	GSM1900_UAT	Right Cheek	0.431	0.129	0.086	0.56	0.22
		Right Tilted	0.517	0.139	0.074	0.66	0.21
		Left Cheek	0.236	0.367	0.391	0.60	0.76
		Left Tilted	0.285	0.184	0.269	0.47	0.45
WCDMA	WCDMA V_UAT	Right Cheek	0.530	0.129	0.086	0.66	0.22
		Right Tilted	0.123	0.139	0.074	0.26	0.21
		Left Cheek	0.813	0.367	0.391	1.18	0.76
		Left Tilted	0.147	0.184	0.269	0.33	0.45
	WCDMA IV_UAT	Right Cheek	0.665	0.129	0.086	0.79	0.22
		Right Tilted	0.911	0.139	0.074	1.05	0.21
		Left Cheek	0.363	0.367	0.391	0.73	0.76
		Left Tilted	0.510	0.184	0.269	0.69	0.45
	WCDMA II_UAT	Right Cheek	0.632	0.129	0.086	0.76	0.22
		Right Tilted	0.859	0.139	0.074	1.00	0.21
		Left Cheek	0.397	0.367	0.391	0.76	0.76
		Left Tilted	0.519	0.184	0.269	0.70	0.45
CDMA	CDMA2000 BC0_UAT	Right Cheek	0.605	0.129	0.086	0.73	0.22
		Right Tilted	0.140	0.139	0.074	0.28	0.21
		Left Cheek	0.919	0.367	0.391	1.29	0.76
		Left Tilted	0.159	0.184	0.269	0.34	0.45
	CDMA2000 BC10_UAT	Right Cheek	0.541	0.129	0.086	0.67	0.22
		Right Tilted	0.098	0.139	0.074	0.24	0.21
		Left Cheek	0.798	0.367	0.391	1.17	0.76
		Left Tilted	0.119	0.184	0.269	0.30	0.45
	CDMA2000 BC1_UAT	Right Cheek	0.573	0.129	0.086	0.70	0.22
		Right Tilted	0.707	0.139	0.074	0.85	0.21
		Left Cheek	0.319	0.367	0.391	0.69	0.76
		Left Tilted	0.414	0.184	0.269	0.60	0.45
LTE	LTE Band 71_UAT	Right Cheek	0.609	0.129	0.086	0.74	0.22
		Right Tilted	0.131	0.139	0.074	0.27	0.21
		Left Cheek	0.773	0.367	0.391	1.14	0.76
		Left Tilted	0.146	0.184	0.269	0.33	0.45
	LTE Band 12_UAT	Right Cheek	0.535	0.129	0.086	0.66	0.22
		Right Tilted	0.115	0.139	0.074	0.25	0.21
		Left Cheek	0.715	0.367	0.391	1.08	0.76
		Left Tilted	0.120	0.184	0.269	0.30	0.45
	LTE Band 13_UAT	Right Cheek	0.613	0.129	0.086	0.74	0.22
		Right Tilted	0.125	0.139	0.074	0.26	0.21
		Left Cheek	0.827	0.367	0.391	1.19	0.76
		Left Tilted	0.138	0.184	0.269	0.32	0.45
	LTE Band 5_UAT	Right Cheek	0.509	0.129	0.086	0.64	0.22
		Right Tilted	0.101	0.139	0.074	0.24	0.21
		Left Cheek	0.714	0.367	0.391	1.08	0.76
		Left Tilted	0.110	0.184	0.269	0.29	0.45
	LTE Band 26_UAT	Right Cheek	0.605	0.129	0.086	0.73	0.22
		Right Tilted	0.113	0.139	0.074	0.25	0.21
		Left Cheek	0.816	0.367	0.391	1.18	0.76



		Left Tilted	0.124	0.184	0.269	0.31	0.45
LTE Band 66_UAT		Right Cheek	0.528	0.129	0.086	0.66	0.22
		Right Tilted	0.677	0.139	0.074	0.82	0.21
		Left Cheek	0.297	0.367	0.391	0.66	0.76
		Left Tilted	0.374	0.184	0.269	0.56	0.45
		Right Cheek	0.648	0.129	0.086	0.78	0.22
LTE Band 25_UAT		Right Tilted	0.763	0.139	0.074	0.90	0.21
		Left Cheek	0.387	0.367	0.391	0.75	0.76
		Left Tilted	0.462	0.184	0.269	0.65	0.45
		Right Cheek	0.604	0.129	0.086	0.73	0.22
LTE Band 30_UAT		Right Tilted	0.748	0.139	0.074	0.89	0.21
		Left Cheek	0.373	0.367	0.391	0.74	0.76
		Left Tilted	0.441	0.184	0.269	0.63	0.45
		Right Cheek	0.385	0.129	0.086	0.51	0.22
LTE Band 7_UAT		Right Tilted	0.551	0.139	0.074	0.69	0.21
		Left Cheek	0.190	0.367	0.391	0.56	0.76
		Left Tilted	0.231	0.184	0.269	0.42	0.45
		Right Cheek	0.238	0.129	0.086	0.37	0.22
LTE Band 41_UAT		Right Tilted	0.491	0.139	0.074	0.63	0.21
		Left Cheek	0.192	0.367	0.391	0.56	0.76
		Left Tilted	0.261	0.184	0.269	0.45	0.45
		Right Cheek	0.333	0.129	0.086	0.46	0.22
LTE Band 41(HPUE)_UAT		Right Tilted	0.469	0.139	0.074	0.61	0.21
		Left Cheek	0.172	0.367	0.391	0.54	0.76
		Left Tilted	0.229	0.184	0.269	0.41	0.45
		Right Cheek	0.763	0.129	0.086	0.89	0.22
LTE Band 48_UAT		Right Tilted	0.975	0.139	0.074	1.11	0.21
		Left Cheek	0.314	0.367	0.391	0.68	0.76
		Left Tilted	0.332	0.184	0.269	0.52	0.45



WWAN Band		Exposure Position	1	4	6	1+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_UAT	Right Cheek	0.333	0.086	0.119	0.42	0.54
		Right Tilted	0.060	0.074	0.130	0.13	0.26
		Left Cheek	0.445	0.391	0.256	0.84	1.09
		Left Tilted	0.051	0.269	0.180	0.32	0.50
	GSM1900_UAT	Right Cheek	0.279	0.086	0.119	0.37	0.48
		Right Tilted	0.336	0.074	0.130	0.41	0.54
		Left Cheek	0.154	0.391	0.256	0.55	0.80
		Left Tilted	0.186	0.269	0.180	0.46	0.64
WCDMA	WCDMA V_UAT	Right Cheek	0.313	0.086	0.119	0.40	0.52
		Right Tilted	0.072	0.074	0.130	0.15	0.28
		Left Cheek	0.474	0.391	0.256	0.87	1.12
		Left Tilted	0.086	0.269	0.180	0.36	0.54
	WCDMA IV_UAT	Right Cheek	0.388	0.086	0.119	0.47	0.59
		Right Tilted	0.519	0.074	0.130	0.59	0.72
		Left Cheek	0.336	0.391	0.256	0.73	0.98
		Left Tilted	0.325	0.269	0.180	0.59	0.77
	WCDMA II_UAT	Right Cheek	0.368	0.086	0.119	0.45	0.57
		Right Tilted	0.503	0.074	0.130	0.58	0.71
		Left Cheek	0.241	0.391	0.256	0.63	0.89
		Left Tilted	0.305	0.269	0.180	0.57	0.75
CDMA	CDMA2000 BC0_UAT	Right Cheek	0.334	0.086	0.119	0.42	0.54
		Right Tilted	0.073	0.074	0.130	0.15	0.28
		Left Cheek	0.504	0.391	0.256	0.90	1.15
		Left Tilted	0.083	0.269	0.180	0.35	0.53
	CDMA2000 BC10_UAT	Right Cheek	0.278	0.086	0.119	0.36	0.48
		Right Tilted	0.049	0.074	0.130	0.12	0.25
		Left Cheek	0.393	0.391	0.256	0.78	1.04
		Left Tilted	0.062	0.269	0.180	0.33	0.51
	CDMA2000 BC1_UAT	Right Cheek	0.323	0.086	0.119	0.41	0.53
		Right Tilted	0.398	0.074	0.130	0.47	0.60
		Left Cheek	0.178	0.391	0.256	0.57	0.83
		Left Tilted	0.236	0.269	0.180	0.51	0.69
LTE	LTE Band 71_UAT	Right Cheek	0.326	0.086	0.119	0.41	0.53
		Right Tilted	0.073	0.074	0.130	0.15	0.28
		Left Cheek	0.443	0.391	0.256	0.83	1.09
		Left Tilted	0.085	0.269	0.180	0.35	0.53
	LTE Band 12_UAT	Right Cheek	0.380	0.086	0.119	0.47	0.59
		Right Tilted	0.081	0.074	0.130	0.16	0.29
		Left Cheek	0.494	0.391	0.256	0.89	1.14
		Left Tilted	0.094	0.269	0.180	0.36	0.54
	LTE Band 13_UAT	Right Cheek	0.292	0.086	0.119	0.38	0.50
		Right Tilted	0.062	0.074	0.130	0.14	0.27
		Left Cheek	0.398	0.391	0.256	0.79	1.05
		Left Tilted	0.068	0.269	0.180	0.34	0.52
	LTE Band 5_UAT	Right Cheek	0.309	0.086	0.119	0.40	0.51
		Right Tilted	0.058	0.074	0.130	0.13	0.26
		Left Cheek	0.439	0.391	0.256	0.83	1.09
		Left Tilted	0.064	0.269	0.180	0.33	0.51
	LTE Band 26_UAT	Right Cheek	0.344	0.086	0.119	0.43	0.55
		Right Tilted	0.062	0.074	0.130	0.14	0.27
		Left Cheek	0.469	0.391	0.256	0.86	1.12



		Left Tilted	0.072	0.269	0.180	0.34	0.52
LTE Band 66_UAT		Right Cheek	0.301	0.086	0.119	0.39	0.51
		Right Tilted	0.371	0.074	0.130	0.45	0.58
		Left Cheek	0.164	0.391	0.256	0.56	0.81
		Left Tilted	0.207	0.269	0.180	0.48	0.66
		Right Cheek	0.376	0.086	0.119	0.46	0.58
LTE Band 25_UAT		Right Tilted	0.448	0.074	0.130	0.52	0.65
		Left Cheek	0.229	0.391	0.256	0.62	0.88
		Left Tilted	0.266	0.269	0.180	0.54	0.72
		Right Cheek	0.313	0.086	0.119	0.40	0.52
LTE Band 30_UAT		Right Tilted	0.396	0.074	0.130	0.47	0.60
		Left Cheek	0.190	0.391	0.256	0.58	0.84
		Left Tilted	0.221	0.269	0.180	0.49	0.67
		Right Cheek	0.216	0.086	0.119	0.30	0.42
LTE Band 7_UAT		Right Tilted	0.292	0.074	0.130	0.37	0.50
		Left Cheek	0.116	0.391	0.256	0.51	0.76
		Left Tilted	0.131	0.269	0.180	0.40	0.58
		Right Cheek	0.142	0.086	0.119	0.23	0.35
LTE Band 41_UAT		Right Tilted	0.292	0.074	0.130	0.37	0.50
		Left Cheek	0.128	0.391	0.256	0.52	0.78
		Left Tilted	0.156	0.269	0.180	0.43	0.61
		Right Cheek	0.197	0.086	0.119	0.28	0.40
LTE Band 41(HPUE)_UAT		Right Tilted	0.245	0.074	0.130	0.32	0.45
		Left Cheek	0.110	0.391	0.256	0.50	0.76
		Left Tilted	0.143	0.269	0.180	0.41	0.59
		Right Cheek	0.428	0.086	0.119	0.51	0.63
LTE Band 48_UAT		Right Tilted	0.464	0.074	0.130	0.54	0.67
		Left Cheek	0.194	0.391	0.256	0.59	0.84
		Left Tilted	0.217	0.269	0.180	0.49	0.67
		Right Cheek	0.428	0.086	0.119	0.51	0.63



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
GSM	GSM850_UAT	Right Cheek	0.333	0.129	0.086	0.55
		Right Tilted	0.060	0.139	0.074	0.27
		Left Cheek	0.445	0.367	0.391	1.20
		Left Tilted	0.051	0.184	0.269	0.50
	GSM1900_UAT	Right Cheek	0.279	0.129	0.086	0.49
		Right Tilted	0.336	0.139	0.074	0.55
		Left Cheek	0.154	0.367	0.391	0.91
		Left Tilted	0.186	0.184	0.269	0.64
WCDMA	WCDMA V_UAT	Right Cheek	0.313	0.129	0.086	0.53
		Right Tilted	0.072	0.139	0.074	0.29
		Left Cheek	0.474	0.367	0.391	1.23
		Left Tilted	0.086	0.184	0.269	0.54
	WCDMA IV_UAT	Right Cheek	0.388	0.129	0.086	0.60
		Right Tilted	0.519	0.139	0.074	0.73
		Left Cheek	0.336	0.367	0.391	1.09
		Left Tilted	0.325	0.184	0.269	0.78
	WCDMA II_UAT	Right Cheek	0.368	0.129	0.086	0.58
		Right Tilted	0.503	0.139	0.074	0.72
		Left Cheek	0.241	0.367	0.391	1.00
		Left Tilted	0.305	0.184	0.269	0.76
CDMA	CDMA2000 BC0_UAT	Right Cheek	0.334	0.129	0.086	0.55
		Right Tilted	0.073	0.139	0.074	0.29
		Left Cheek	0.504	0.367	0.391	1.26
		Left Tilted	0.083	0.184	0.269	0.54
	CDMA2000 BC10_UAT	Right Cheek	0.278	0.129	0.086	0.49
		Right Tilted	0.049	0.139	0.074	0.26
		Left Cheek	0.393	0.367	0.391	1.15
		Left Tilted	0.062	0.184	0.269	0.52
	CDMA2000 BC1_UAT	Right Cheek	0.323	0.129	0.086	0.54
		Right Tilted	0.398	0.139	0.074	0.61
		Left Cheek	0.178	0.367	0.391	0.94
		Left Tilted	0.236	0.184	0.269	0.69
LTE	LTE Band 71_UAT	Right Cheek	0.326	0.129	0.086	0.54
		Right Tilted	0.073	0.139	0.074	0.29
		Left Cheek	0.443	0.367	0.391	1.20
		Left Tilted	0.085	0.184	0.269	0.54
	LTE Band 12_UAT	Right Cheek	0.380	0.129	0.086	0.60
		Right Tilted	0.081	0.139	0.074	0.29
		Left Cheek	0.494	0.367	0.391	1.25
		Left Tilted	0.094	0.184	0.269	0.55
	LTE Band 13_UAT	Right Cheek	0.292	0.129	0.086	0.51
		Right Tilted	0.062	0.139	0.074	0.28
		Left Cheek	0.398	0.367	0.391	1.16
		Left Tilted	0.068	0.184	0.269	0.52
	LTE Band 5_UAT	Right Cheek	0.309	0.129	0.086	0.52
		Right Tilted	0.058	0.139	0.074	0.27
		Left Cheek	0.439	0.367	0.391	1.20
		Left Tilted	0.064	0.184	0.269	0.52
	LTE Band 26_UAT	Right Cheek	0.344	0.129	0.086	0.56
		Right Tilted	0.062	0.139	0.074	0.28
		Left Cheek	0.469	0.367	0.391	1.23



		Left Tilted	0.072	0.184	0.269	0.53
LTE Band 66_UAT		Right Cheek	0.301	0.129	0.086	0.52
		Right Tilted	0.371	0.139	0.074	0.58
		Left Cheek	0.164	0.367	0.391	0.92
		Left Tilted	0.207	0.184	0.269	0.66
		Right Cheek	0.376	0.129	0.086	0.59
LTE Band 25_UAT		Right Tilted	0.448	0.139	0.074	0.66
		Left Cheek	0.229	0.367	0.391	0.99
		Left Tilted	0.266	0.184	0.269	0.72
		Right Cheek	0.313	0.129	0.086	0.53
LTE Band 30_UAT		Right Tilted	0.396	0.139	0.074	0.61
		Left Cheek	0.190	0.367	0.391	0.95
		Left Tilted	0.221	0.184	0.269	0.67
		Right Cheek	0.216	0.129	0.086	0.43
LTE Band 7_UAT		Right Tilted	0.292	0.139	0.074	0.51
		Left Cheek	0.116	0.367	0.391	0.87
		Left Tilted	0.131	0.184	0.269	0.58
		Right Cheek	0.142	0.129	0.086	0.36
LTE Band 41_UAT		Right Tilted	0.292	0.139	0.074	0.51
		Left Cheek	0.128	0.367	0.391	0.89
		Left Tilted	0.156	0.184	0.269	0.61
		Right Cheek	0.197	0.129	0.086	0.41
LTE Band 41(HPUE)_UAT		Right Tilted	0.245	0.139	0.074	0.46
		Left Cheek	0.110	0.367	0.391	0.87
		Left Tilted	0.143	0.184	0.269	0.60
		Right Cheek	0.428	0.129	0.086	0.64
LTE Band 48_UAT		Right Tilted	0.464	0.139	0.074	0.68
		Left Cheek	0.194	0.367	0.391	0.95
		Left Tilted	0.217	0.184	0.269	0.67





WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_LAT	Right Cheek	0.134	0.287	0.219	0.119	0.25	0.34
		Right Tilted	0.088	0.311	0.186	0.130	0.22	0.32
		Left Cheek	0.212	0.820	0.941	0.256	0.47	1.20
		Left Tilted	0.086	0.574	0.718	0.180	0.27	0.90
	GSM1900_LAT	Right Cheek	0.144	0.287	0.219	0.119	0.26	0.34
		Right Tilted	0.075	0.311	0.186	0.130	0.21	0.32
		Left Cheek	0.139	0.820	0.941	0.256	0.40	1.20
		Left Tilted	0.071	0.574	0.718	0.180	0.25	0.90
WCDMA	WCDMA V_LAT	Right Cheek	0.165	0.287	0.219	0.119	0.28	0.34
		Right Tilted	0.108	0.311	0.186	0.130	0.24	0.32
		Left Cheek	0.250	0.820	0.941	0.256	0.51	1.20
		Left Tilted	0.105	0.574	0.718	0.180	0.29	0.90
	WCDMA IV_LAT	Right Cheek	0.206	0.287	0.219	0.119	0.33	0.34
		Right Tilted	0.141	0.311	0.186	0.130	0.27	0.32
		Left Cheek	0.487	0.820	0.941	0.256	0.74	1.20
		Left Tilted	0.102	0.574	0.718	0.180	0.28	0.90
	WCDMA II_LAT	Right Cheek	0.319	0.287	0.219	0.119	0.44	0.34
		Right Tilted	0.139	0.311	0.186	0.130	0.27	0.32
		Left Cheek	0.250	0.820	0.941	0.256	0.51	1.20
		Left Tilted	0.141	0.574	0.718	0.180	0.32	0.90
CDMA	CDMA2000 BC0_LAT	Right Cheek	0.144	0.287	0.219	0.119	0.26	0.34
		Right Tilted	0.103	0.311	0.186	0.130	0.23	0.32
		Left Cheek	0.230	0.820	0.941	0.256	0.49	1.20
		Left Tilted	0.102	0.574	0.718	0.180	0.28	0.90
	CDMA2000 BC10_LAT	Right Cheek	0.104	0.287	0.219	0.119	0.22	0.34
		Right Tilted	0.060	0.311	0.186	0.130	0.19	0.32
		Left Cheek	0.215	0.820	0.941	0.256	0.47	1.20
		Left Tilted	0.062	0.574	0.718	0.180	0.24	0.90
	CDMA2000 BC1_LAT	Right Cheek	0.235	0.287	0.219	0.119	0.35	0.34
		Right Tilted	0.134	0.311	0.186	0.130	0.26	0.32
		Left Cheek	0.190	0.820	0.941	0.256	0.45	1.20
		Left Tilted	0.126	0.574	0.718	0.180	0.31	0.90
LTE	LTE Band 71_LAT	Right Cheek	0.123	0.287	0.219	0.119	0.24	0.34
		Right Tilted	0.060	0.311	0.186	0.130	0.19	0.32
		Left Cheek	0.141	0.820	0.941	0.256	0.40	1.20
		Left Tilted	0.058	0.574	0.718	0.180	0.24	0.90
	LTE Band 12_LAT	Right Cheek	0.173	0.287	0.219	0.119	0.29	0.34
		Right Tilted	0.095	0.311	0.186	0.130	0.23	0.32
		Left Cheek	0.226	0.820	0.941	0.256	0.48	1.20
		Left Tilted	0.116	0.574	0.718	0.180	0.30	0.90
	LTE Band 13_LAT	Right Cheek	0.151	0.287	0.219	0.119	0.27	0.34
		Right Tilted	0.097	0.311	0.186	0.130	0.23	0.32
		Left Cheek	0.160	0.820	0.941	0.256	0.42	1.20
		Left Tilted	0.088	0.574	0.718	0.180	0.27	0.90
	LTE Band 5_LAT	Right Cheek	0.168	0.287	0.219	0.119	0.29	0.34
		Right Tilted	0.109	0.311	0.186	0.130	0.24	0.32
		Left Cheek	0.213	0.820	0.941	0.256	0.47	1.20
		Left Tilted	0.109	0.574	0.718	0.180	0.29	0.90
	LTE Band 26_LAT	Right Cheek	0.189	0.287	0.219	0.119	0.31	0.34
		Right Tilted	0.119	0.311	0.186	0.130	0.25	0.32
		Left Cheek	0.283	0.820	0.941	0.256	0.54	1.20



	LTE Band 66_LAT	Left Tilted	0.119	0.574	0.718	0.180	0.30	0.90
		Right Cheek	0.155	0.287	0.219	0.119	0.27	0.34
		Right Tilted	0.129	0.311	0.186	0.130	0.26	0.32
		Left Cheek	0.358	0.820	0.941	0.256	0.61	1.20
	LTE Band 25_LAT	Left Tilted	0.113	0.574	0.718	0.180	0.29	0.90
		Right Cheek	0.288	0.287	0.219	0.119	0.41	0.34
		Right Tilted	0.171	0.311	0.186	0.130	0.30	0.32
		Left Cheek	0.274	0.820	0.941	0.256	0.53	1.20
	LTE Band 30_LAT	Left Tilted	0.159	0.574	0.718	0.180	0.34	0.90
		Right Cheek	0.189	0.287	0.219	0.119	0.31	0.34
		Right Tilted	0.160	0.311	0.186	0.130	0.29	0.32
		Left Cheek	0.241	0.820	0.941	0.256	0.50	1.20
	LTE Band 7_LAT	Left Tilted	0.140	0.574	0.718	0.180	0.32	0.90
		Right Cheek	0.421	0.287	0.219	0.119	0.54	0.34
		Right Tilted	0.171	0.311	0.186	0.130	0.30	0.32
		Left Cheek	0.367	0.820	0.941	0.256	0.62	1.20
	LTE Band 41_LAT	Left Tilted	0.306	0.574	0.718	0.180	0.49	0.90
		Right Cheek	0.265	0.287	0.219	0.119	0.38	0.34
		Right Tilted	0.088	0.311	0.186	0.130	0.22	0.32
		Left Cheek	0.147	0.820	0.941	0.256	0.40	1.20
	LTE Band 41(HPUE)_LAT	Left Tilted	0.173	0.574	0.718	0.180	0.35	0.90
		Right Cheek	0.291	0.287	0.219	0.119	0.41	0.34
		Right Tilted	0.106	0.311	0.186	0.130	0.24	0.32
		Left Cheek	0.186	0.820	0.941	0.256	0.44	1.20
		Left Tilted	0.211	0.574	0.718	0.180	0.39	0.90



WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850_LAT	Right Cheek	0.134	0.129	0.086	0.119	0.26	0.22	0.22	0.34
		Right Tilted	0.088	0.139	0.074	0.130	0.23	0.16	0.21	0.29
		Left Cheek	0.212	0.367	0.391	0.256	0.58	0.60	0.76	0.86
		Left Tilted	0.086	0.184	0.269	0.180	0.27	0.36	0.45	0.54
	GSM1900_LAT	Right Cheek	0.144	0.129	0.086	0.119	0.27	0.23	0.22	0.35
		Right Tilted	0.075	0.139	0.074	0.130	0.21	0.15	0.21	0.28
		Left Cheek	0.139	0.367	0.391	0.256	0.51	0.53	0.76	0.79
		Left Tilted	0.071	0.184	0.269	0.180	0.26	0.34	0.45	0.52
WCDMA	WCDMA V_LAT	Right Cheek	0.165	0.129	0.086	0.119	0.29	0.25	0.22	0.37
		Right Tilted	0.108	0.139	0.074	0.130	0.25	0.18	0.21	0.31
		Left Cheek	0.250	0.367	0.391	0.256	0.62	0.64	0.76	0.90
		Left Tilted	0.105	0.184	0.269	0.180	0.29	0.37	0.45	0.55
	WCDMA IV_LAT	Right Cheek	0.206	0.129	0.086	0.119	0.34	0.29	0.22	0.41
		Right Tilted	0.141	0.139	0.074	0.130	0.28	0.22	0.21	0.35
		Left Cheek	0.487	0.367	0.391	0.256	0.85	0.88	0.76	1.13
		Left Tilted	0.102	0.184	0.269	0.180	0.29	0.37	0.45	0.55
	WCDMA II_LAT	Right Cheek	0.319	0.129	0.086	0.119	0.45	0.41	0.22	0.52
		Right Tilted	0.139	0.139	0.074	0.130	0.28	0.21	0.21	0.34
		Left Cheek	0.250	0.367	0.391	0.256	0.62	0.64	0.76	0.90
		Left Tilted	0.141	0.184	0.269	0.180	0.33	0.41	0.45	0.59
CDMA	CDMA2000 BC0_LAT	Right Cheek	0.144	0.129	0.086	0.119	0.27	0.23	0.22	0.35
		Right Tilted	0.103	0.139	0.074	0.130	0.24	0.18	0.21	0.31
		Left Cheek	0.230	0.367	0.391	0.256	0.60	0.62	0.76	0.88
		Left Tilted	0.102	0.184	0.269	0.180	0.29	0.37	0.45	0.55
	CDMA2000 BC10_LAT	Right Cheek	0.104	0.129	0.086	0.119	0.23	0.19	0.22	0.31
		Right Tilted	0.060	0.139	0.074	0.130	0.20	0.13	0.21	0.26
		Left Cheek	0.215	0.367	0.391	0.256	0.58	0.61	0.76	0.86
		Left Tilted	0.062	0.184	0.269	0.180	0.25	0.33	0.45	0.51
	CDMA2000 BC1_LAT	Right Cheek	0.235	0.129	0.086	0.119	0.36	0.32	0.22	0.44
		Right Tilted	0.134	0.139	0.074	0.130	0.27	0.21	0.21	0.34
		Left Cheek	0.190	0.367	0.391	0.256	0.56	0.58	0.76	0.84
		Left Tilted	0.126	0.184	0.269	0.180	0.31	0.40	0.45	0.58
LTE	LTE Band 71_LAT	Right Cheek	0.123	0.129	0.086	0.119	0.25	0.21	0.22	0.33
		Right Tilted	0.060	0.139	0.074	0.130	0.20	0.13	0.21	0.26
		Left Cheek	0.141	0.367	0.391	0.256	0.51	0.53	0.76	0.79
		Left Tilted	0.058	0.184	0.269	0.180	0.24	0.33	0.45	0.51
	LTE Band 12_LAT	Right Cheek	0.173	0.129	0.086	0.119	0.30	0.26	0.22	0.38
		Right Tilted	0.095	0.139	0.074	0.130	0.23	0.17	0.21	0.30
		Left Cheek	0.226	0.367	0.391	0.256	0.59	0.62	0.76	0.87
		Left Tilted	0.116	0.184	0.269	0.180	0.30	0.39	0.45	0.57
	LTE Band 13_LAT	Right Cheek	0.151	0.129	0.086	0.119	0.28	0.24	0.22	0.36
		Right Tilted	0.097	0.139	0.074	0.130	0.24	0.17	0.21	0.30
		Left Cheek	0.160	0.367	0.391	0.256	0.53	0.55	0.76	0.81
		Left Tilted	0.088	0.184	0.269	0.180	0.27	0.36	0.45	0.54
	LTE Band 5_LAT	Right Cheek	0.168	0.129	0.086	0.119	0.30	0.25	0.22	0.37
		Right Tilted	0.109	0.139	0.074	0.130	0.25	0.18	0.21	0.31
		Left Cheek	0.213	0.367	0.391	0.256	0.58	0.60	0.76	0.86
		Left Tilted	0.109	0.184	0.269	0.180	0.29	0.38	0.45	0.56
	LTE Band 26_LAT	Right Cheek	0.189	0.129	0.086	0.119	0.32	0.28	0.22	0.39
		Right Tilted	0.119	0.139	0.074	0.130	0.26	0.19	0.21	0.32



		Left Cheek	0.283	0.367	0.391	0.256	0.65	0.67	0.76	0.93
		Left Tilted	0.119	0.184	0.269	0.180	0.30	0.39	0.45	0.57
	LTE Band 66_LAT	Right Cheek	0.155	0.129	0.086	0.119	0.28	0.24	0.22	0.36
		Right Tilted	0.129	0.139	0.074	0.130	0.27	0.20	0.21	0.33
		Left Cheek	0.358	0.367	0.391	0.256	0.73	0.75	0.76	1.01
		Left Tilted	0.113	0.184	0.269	0.180	0.30	0.38	0.45	0.56
	LTE Band 25_LAT	Right Cheek	0.288	0.129	0.086	0.119	0.42	0.37	0.22	0.49
		Right Tilted	0.171	0.139	0.074	0.130	0.31	0.25	0.21	0.38
		Left Cheek	0.274	0.367	0.391	0.256	0.64	0.67	0.76	0.92
		Left Tilted	0.159	0.184	0.269	0.180	0.34	0.43	0.45	0.61
	LTE Band 30_LAT	Right Cheek	0.189	0.129	0.086	0.119	0.32	0.28	0.22	0.39
		Right Tilted	0.160	0.139	0.074	0.130	0.30	0.23	0.21	0.36
		Left Cheek	0.241	0.367	0.391	0.256	0.61	0.63	0.76	0.89
		Left Tilted	0.140	0.184	0.269	0.180	0.32	0.41	0.45	0.59
	LTE Band 7_LAT	Right Cheek	0.421	0.129	0.086	0.119	0.55	0.51	0.22	0.63
		Right Tilted	0.171	0.139	0.074	0.130	0.31	0.25	0.21	0.38
		Left Cheek	0.367	0.367	0.391	0.256	0.73	0.76	0.76	1.01
		Left Tilted	0.306	0.184	0.269	0.180	0.49	0.58	0.45	0.76
	LTE Band 41_LAT	Right Cheek	0.265	0.129	0.086	0.119	0.39	0.35	0.22	0.47
		Right Tilted	0.088	0.139	0.074	0.130	0.23	0.16	0.21	0.29
Left Cheek		0.147	0.367	0.391	0.256	0.51	0.54	0.76	0.79	
Left Tilted		0.173	0.184	0.269	0.180	0.36	0.44	0.45	0.62	
LTE Band 41(HPUE)_LAT	Right Cheek	0.291	0.129	0.086	0.119	0.42	0.38	0.22	0.50	
	Right Tilted	0.106	0.139	0.074	0.130	0.25	0.18	0.21	0.31	
	Left Cheek	0.186	0.367	0.391	0.256	0.55	0.58	0.76	0.83	
	Left Tilted	0.211	0.184	0.269	0.180	0.40	0.48	0.45	0.66	



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
GSM	GSM850_LAT	Right Cheek	0.134	0.129	0.086	0.35
		Right Tilted	0.088	0.139	0.074	0.30
		Left Cheek	0.212	0.367	0.391	0.97
		Left Tilted	0.086	0.184	0.269	0.54
	GSM1900_LAT	Right Cheek	0.144	0.129	0.086	0.36
		Right Tilted	0.075	0.139	0.074	0.29
		Left Cheek	0.139	0.367	0.391	0.90
		Left Tilted	0.071	0.184	0.269	0.52
WCDMA	WCDMA V_LAT	Right Cheek	0.165	0.129	0.086	0.38
		Right Tilted	0.108	0.139	0.074	0.32
		Left Cheek	0.250	0.367	0.391	1.01
		Left Tilted	0.105	0.184	0.269	0.56
	WCDMA IV_LAT	Right Cheek	0.206	0.129	0.086	0.42
		Right Tilted	0.141	0.139	0.074	0.35
		Left Cheek	0.487	0.367	0.391	1.25
		Left Tilted	0.102	0.184	0.269	0.56
	WCDMA II_LAT	Right Cheek	0.319	0.129	0.086	0.53
		Right Tilted	0.139	0.139	0.074	0.35
		Left Cheek	0.250	0.367	0.391	1.01
		Left Tilted	0.141	0.184	0.269	0.59
CDMA	CDMA2000 BC0_LAT	Right Cheek	0.144	0.129	0.086	0.36
		Right Tilted	0.103	0.139	0.074	0.32
		Left Cheek	0.230	0.367	0.391	0.99
		Left Tilted	0.102	0.184	0.269	0.56
	CDMA2000 BC10_LAT	Right Cheek	0.104	0.129	0.086	0.32
		Right Tilted	0.060	0.139	0.074	0.27
		Left Cheek	0.215	0.367	0.391	0.97
		Left Tilted	0.062	0.184	0.269	0.52
	CDMA2000 BC1_LAT	Right Cheek	0.235	0.129	0.086	0.45
		Right Tilted	0.134	0.139	0.074	0.35
		Left Cheek	0.190	0.367	0.391	0.95
		Left Tilted	0.126	0.184	0.269	0.58
LTE	LTE Band 71_LAT	Right Cheek	0.123	0.129	0.086	0.34
		Right Tilted	0.060	0.139	0.074	0.27
		Left Cheek	0.141	0.367	0.391	0.90
		Left Tilted	0.058	0.184	0.269	0.51
	LTE Band 12_LAT	Right Cheek	0.173	0.129	0.086	0.39
		Right Tilted	0.095	0.139	0.074	0.31
		Left Cheek	0.226	0.367	0.391	0.98
		Left Tilted	0.116	0.184	0.269	0.57
	LTE Band 13_LAT	Right Cheek	0.151	0.129	0.086	0.37
		Right Tilted	0.097	0.139	0.074	0.31
		Left Cheek	0.160	0.367	0.391	0.92
		Left Tilted	0.088	0.184	0.269	0.54
	LTE Band 5_LAT	Right Cheek	0.168	0.129	0.086	0.38
		Right Tilted	0.109	0.139	0.074	0.32
		Left Cheek	0.213	0.367	0.391	0.97
		Left Tilted	0.109	0.184	0.269	0.56
	LTE Band 26_LAT	Right Cheek	0.189	0.129	0.086	0.40
		Right Tilted	0.119	0.139	0.074	0.33
		Left Cheek	0.283	0.367	0.391	1.04



		Left Tilted	0.119	0.184	0.269	0.57
	LTE Band 66_LAT	Right Cheek	0.155	0.129	0.086	0.37
		Right Tilted	0.129	0.139	0.074	0.34
		Left Cheek	0.358	0.367	0.391	1.12
		Left Tilted	0.113	0.184	0.269	0.57
	LTE Band 25_LAT	Right Cheek	0.288	0.129	0.086	0.50
		Right Tilted	0.171	0.139	0.074	0.38
		Left Cheek	0.274	0.367	0.391	1.03
		Left Tilted	0.159	0.184	0.269	0.61
	LTE Band 30_LAT	Right Cheek	0.189	0.129	0.086	0.40
		Right Tilted	0.160	0.139	0.074	0.37
		Left Cheek	0.241	0.367	0.391	1.00
		Left Tilted	0.140	0.184	0.269	0.59
	LTE Band 7_LAT	Right Cheek	0.421	0.129	0.086	0.64
		Right Tilted	0.171	0.139	0.074	0.38
		Left Cheek	0.367	0.367	0.391	1.13
		Left Tilted	0.306	0.184	0.269	0.76
	LTE Band 41_LAT	Right Cheek	0.265	0.129	0.086	0.48
		Right Tilted	0.088	0.139	0.074	0.30
		Left Cheek	0.147	0.367	0.391	0.91
		Left Tilted	0.173	0.184	0.269	0.63
	LTE Band 41(HPUE)_LAT	Right Cheek	0.291	0.129	0.086	0.51
		Right Tilted	0.106	0.139	0.074	0.32
		Left Cheek	0.186	0.367	0.391	0.94
		Left Tilted	0.211	0.184	0.269	0.66



**<5G NR SAR>**

WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
FR1	N71_Ant0	Right Cheek	0.898	0.287	0.219	0.119	1.02	0.34
		Right Tilted	0.228	0.311	0.186	0.130	0.36	0.32
		Left Cheek	0.902	0.820	0.941	0.256	1.16	1.20
		Left Tilted	0.162	0.574	0.718	0.180	0.34	0.90
	N5_Ant0	Right Cheek	0.693	0.287	0.219	0.119	0.81	0.34
		Right Tilted	0.168	0.311	0.186	0.130	0.30	0.32
		Left Cheek	1.035	0.820	0.941	0.256	1.29	1.20
		Left Tilted	0.169	0.574	0.718	0.180	0.35	0.90
	N66_Ant2	Right Cheek	0.587	0.287	0.219	0.119	0.71	0.34
		Right Tilted	0.850	0.311	0.186	0.130	0.98	0.32
		Left Cheek	0.327	0.820	0.941	0.256	0.58	1.20
		Left Tilted	0.459	0.574	0.718	0.180	0.64	0.90
	N2_Ant2	Right Cheek	0.713	0.287	0.219	0.119	0.83	0.34
		Right Tilted	0.830	0.311	0.186	0.130	0.96	0.32
		Left Cheek	0.387	0.820	0.941	0.256	0.64	1.20
		Left Tilted	0.499	0.574	0.718	0.180	0.68	0.90
	N25_Ant2	Right Cheek	0.734	0.287	0.219	0.119	0.85	0.34
		Right Tilted	0.806	0.311	0.186	0.130	0.94	0.32
		Left Cheek	0.428	0.820	0.941	0.256	0.68	1.20
		Left Tilted	0.596	0.574	0.718	0.180	0.78	0.90
	N41_Ant2	Right Cheek	0.982	0.287	0.219	0.119	1.10	0.34
		Right Tilted	1.062	0.311	0.186	0.130	1.19	0.32
		Left Cheek	0.475	0.820	0.941	0.256	0.73	1.20
		Left Tilted	0.597	0.574	0.718	0.180	0.78	0.90
	N41(HPUe)_Ant2	Right Cheek	0.982	0.287	0.219	0.119	1.10	0.34
		Right Tilted	1.062	0.311	0.186	0.130	1.19	0.32
		Left Cheek	0.475	0.820	0.941	0.256	0.73	1.20
		Left Tilted	0.597	0.574	0.718	0.180	0.78	0.90

WWAN Band	Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1					
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
FR1	N71_Ant0	Right Cheek	0.433	0.129	0.086	0.119	0.56	0.52	0.22	0.64
		Right Tilted	0.094	0.139	0.074	0.130	0.23	0.17	0.21	0.30
		Left Cheek	0.482	0.367	0.391	0.256	0.85	0.87	0.76	1.13
		Left Tilted	0.092	0.184	0.269	0.180	0.28	0.36	0.45	0.54
	N5_Ant0	Right Cheek	0.376	0.129	0.086	0.119	0.51	0.46	0.22	0.58
		Right Tilted	0.075	0.139	0.074	0.130	0.21	0.15	0.21	0.28
		Left Cheek	0.491	0.367	0.391	0.256	0.86	0.88	0.76	1.14
		Left Tilted	0.080	0.184	0.269	0.180	0.26	0.35	0.45	0.53
	N66_Ant2	Right Cheek	0.587	0.129	0.086	0.119	0.72	0.67	0.22	0.79
		Right Tilted	0.850	0.139	0.074	0.130	0.99	0.92	0.21	1.05
		Left Cheek	0.327	0.367	0.391	0.256	0.69	0.72	0.76	0.97
		Left Tilted	0.459	0.184	0.269	0.180	0.64	0.73	0.45	0.91
	N2_Ant2	Right Cheek	0.713	0.129	0.086	0.119	0.84	0.80	0.22	0.92
		Right Tilted	0.830	0.139	0.074	0.130	0.97	0.90	0.21	1.03
		Left Cheek	0.387	0.367	0.391	0.256	0.75	0.78	0.76	1.03
		Left Tilted	0.499	0.184	0.269	0.180	0.68	0.77	0.45	0.95
	N25_Ant2	Right Cheek	0.734	0.129	0.086	0.119	0.86	0.82	0.22	0.94
		Right Tilted	0.806	0.139	0.074	0.130	0.95	0.88	0.21	1.01
		Left Cheek	0.428	0.367	0.391	0.256	0.80	0.82	0.76	1.08
		Left Tilted	0.596	0.184	0.269	0.180	0.78	0.87	0.45	1.05
	N41_Ant2	Right Cheek	0.982	0.129	0.086	0.119	1.11	1.07	0.22	1.19
		Right Tilted	1.062	0.139	0.074	0.130	1.20	1.14	0.21	1.27
		Left Cheek	0.475	0.367	0.391	0.256	0.84	0.87	0.76	1.12
		Left Tilted	0.597	0.184	0.269	0.180	0.78	0.87	0.45	1.05
	N41(HPUE)_Ant2	Right Cheek	0.982	0.129	0.086	0.119	1.11	1.07	0.22	1.19
		Right Tilted	1.062	0.139	0.074	0.130	1.20	1.14	0.21	1.27
		Left Cheek	0.475	0.367	0.391	0.256	0.84	0.87	0.76	1.12
		Left Tilted	0.597	0.184	0.269	0.180	0.78	0.87	0.45	1.05





WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	
FR1	N71_Ant0	Right Cheek	0.433	0.129	0.086	0.65
		Right Tilted	0.094	0.139	0.074	0.31
		Left Cheek	0.482	0.367	0.391	1.24
		Left Tilted	0.092	0.184	0.269	0.55
	N5_Ant0	Right Cheek	0.376	0.129	0.086	0.59
		Right Tilted	0.075	0.139	0.074	0.29
		Left Cheek	0.491	0.367	0.391	1.25
		Left Tilted	0.080	0.184	0.269	0.53
	N66_Ant2	Right Cheek	0.587	0.129	0.086	0.80
		Right Tilted	0.850	0.139	0.074	1.06
		Left Cheek	0.327	0.367	0.391	1.09
		Left Tilted	0.459	0.184	0.269	0.91
	N2_Ant2	Right Cheek	0.713	0.129	0.086	0.93
		Right Tilted	0.830	0.139	0.074	1.04
		Left Cheek	0.387	0.367	0.391	1.15
		Left Tilted	0.499	0.184	0.269	0.95
	N25_Ant2	Right Cheek	0.734	0.129	0.086	0.95
		Right Tilted	0.806	0.139	0.074	1.02
		Left Cheek	0.428	0.367	0.391	1.19
		Left Tilted	0.596	0.184	0.269	1.05
	N41_Ant2	Right Cheek	0.982	0.129	0.086	1.20
		Right Tilted	1.062	0.139	0.074	1.28
		Left Cheek	0.475	0.367	0.391	1.23
		Left Tilted	0.597	0.184	0.269	1.05
	N41(HPUE)_Ant2	Right Cheek	0.982	0.129	0.086	1.20
		Right Tilted	1.062	0.139	0.074	1.28
		Left Cheek	0.475	0.367	0.391	1.23
		Left Tilted	0.597	0.184	0.269	1.05



WWAN Band	Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1			
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
FR1	N71_Ant1	Right Cheek	0.087	0.287	0.219	0.119	0.21	0.34
		Right Tilted	0.049	0.311	0.186	0.130	0.18	0.32
		Left Cheek	0.109	0.820	0.941	0.256	0.37	1.20
		Left Tilted	0.047	0.574	0.718	0.180	0.23	0.90
	N5_Ant1	Right Cheek	0.107	0.287	0.219	0.119	0.23	0.34
		Right Tilted	0.065	0.311	0.186	0.130	0.20	0.32
		Left Cheek	0.153	0.820	0.941	0.256	0.41	1.20
		Left Tilted	0.063	0.574	0.718	0.180	0.24	0.90
	N66_Ant3	Right Cheek	0.138	0.287	0.219	0.119	0.26	0.34
		Right Tilted	0.091	0.311	0.186	0.130	0.22	0.32
		Left Cheek	0.231	0.820	0.941	0.256	0.49	1.20
		Left Tilted	0.079	0.574	0.718	0.180	0.26	0.90
	N2_Ant3	Right Cheek	0.175	0.287	0.219	0.119	0.29	0.34
		Right Tilted	0.166	0.311	0.186	0.130	0.30	0.32
		Left Cheek	0.240	0.820	0.941	0.256	0.50	1.20
		Left Tilted	0.138	0.574	0.718	0.180	0.32	0.90
	N25_Ant3	Right Cheek	0.225	0.287	0.219	0.119	0.34	0.34
		Right Tilted	0.124	0.311	0.186	0.130	0.25	0.32
		Left Cheek	0.249	0.820	0.941	0.256	0.51	1.20
		Left Tilted	0.144	0.574	0.718	0.180	0.32	0.90
	N41_Ant3	Right Cheek	0.325	0.287	0.219	0.119	0.44	0.34
		Right Tilted	0.123	0.311	0.186	0.130	0.25	0.32
		Left Cheek	0.228	0.820	0.941	0.256	0.48	1.20
		Left Tilted	0.231	0.574	0.718	0.180	0.41	0.90
	N41(HPUE)_Ant3	Right Cheek	0.539	0.287	0.219	0.119	0.66	0.34
		Right Tilted	0.184	0.311	0.186	0.130	0.31	0.32
		Left Cheek	0.372	0.820	0.941	0.256	0.63	1.20
		Left Tilted	0.388	0.574	0.718	0.180	0.57	0.90



WWAN Band	Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1					
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
FR1	N71_Ant1	Right Cheek	0.087	0.129	0.086	0.119	0.22	0.17	0.22	0.29
		Right Tilted	0.049	0.139	0.074	0.130	0.19	0.12	0.21	0.25
		Left Cheek	0.109	0.367	0.391	0.256	0.48	0.50	0.76	0.76
		Left Tilted	0.047	0.184	0.269	0.180	0.23	0.32	0.45	0.50
	N5_Ant1	Right Cheek	0.107	0.129	0.086	0.119	0.24	0.19	0.22	0.31
		Right Tilted	0.065	0.139	0.074	0.130	0.20	0.14	0.21	0.27
		Left Cheek	0.153	0.367	0.391	0.256	0.52	0.54	0.76	0.80
		Left Tilted	0.063	0.184	0.269	0.180	0.25	0.33	0.45	0.51
	N66_Ant3	Right Cheek	0.138	0.129	0.086	0.119	0.27	0.22	0.22	0.34
		Right Tilted	0.091	0.139	0.074	0.130	0.23	0.17	0.21	0.30
		Left Cheek	0.231	0.367	0.391	0.256	0.60	0.62	0.76	0.88
		Left Tilted	0.079	0.184	0.269	0.180	0.26	0.35	0.45	0.53
	N2_Ant3	Right Cheek	0.175	0.129	0.086	0.119	0.30	0.26	0.22	0.38
		Right Tilted	0.166	0.139	0.074	0.130	0.31	0.24	0.21	0.37
		Left Cheek	0.240	0.367	0.391	0.256	0.61	0.63	0.76	0.89
		Left Tilted	0.138	0.184	0.269	0.180	0.32	0.41	0.45	0.59
	N25_Ant3	Right Cheek	0.225	0.129	0.086	0.119	0.35	0.31	0.22	0.43
		Right Tilted	0.124	0.139	0.074	0.130	0.26	0.20	0.21	0.33
		Left Cheek	0.249	0.367	0.391	0.256	0.62	0.64	0.76	0.90
		Left Tilted	0.144	0.184	0.269	0.180	0.33	0.41	0.45	0.59
	N41_Ant3	Right Cheek	0.325	0.129	0.086	0.119	0.45	0.41	0.22	0.53
		Right Tilted	0.123	0.139	0.074	0.130	0.26	0.20	0.21	0.33
		Left Cheek	0.228	0.367	0.391	0.256	0.60	0.62	0.76	0.88
		Left Tilted	0.231	0.184	0.269	0.180	0.42	0.50	0.45	0.68
	N41(HPUE)_Ant3	Right Cheek	0.539	0.129	0.086	0.119	0.67	0.63	0.22	0.74
		Right Tilted	0.184	0.139	0.074	0.130	0.32	0.26	0.21	0.39
		Left Cheek	0.372	0.367	0.391	0.256	0.74	0.76	0.76	1.02
		Left Tilted	0.388	0.184	0.269	0.180	0.57	0.66	0.45	0.84



WWAN Band	Exposure Position	1	2	4	6	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1			
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
FR1	N71_Ant1	Right Cheek	0.087	0.129	0.086	0.119	0.30	0.29
		Right Tilted	0.049	0.139	0.074	0.130	0.26	0.25
		Left Cheek	0.109	0.367	0.391	0.256	0.87	0.76
		Left Tilted	0.047	0.184	0.269	0.180	0.50	0.50
	N5_Ant1	Right Cheek	0.107	0.129	0.086	0.119	0.32	0.31
		Right Tilted	0.065	0.139	0.074	0.130	0.28	0.27
		Left Cheek	0.153	0.367	0.391	0.256	0.91	0.80
		Left Tilted	0.063	0.184	0.269	0.180	0.52	0.51
	N66_Ant3	Right Cheek	0.138	0.129	0.086	0.119	0.35	0.34
		Right Tilted	0.091	0.139	0.074	0.130	0.30	0.30
		Left Cheek	0.231	0.367	0.391	0.256	0.99	0.88
		Left Tilted	0.079	0.184	0.269	0.180	0.53	0.53
	N2_Ant3	Right Cheek	0.175	0.129	0.086	0.119	0.39	0.38
		Right Tilted	0.166	0.139	0.074	0.130	0.38	0.37
		Left Cheek	0.240	0.367	0.391	0.256	1.00	0.89
		Left Tilted	0.138	0.184	0.269	0.180	0.59	0.59
	N25_Ant3	Right Cheek	0.225	0.129	0.086	0.119	0.44	0.43
		Right Tilted	0.124	0.139	0.074	0.130	0.34	0.33
		Left Cheek	0.249	0.367	0.391	0.256	1.01	0.90
		Left Tilted	0.144	0.184	0.269	0.180	0.60	0.59
	N41_Ant3	Right Cheek	0.325	0.129	0.086	0.119	0.54	0.53
		Right Tilted	0.123	0.139	0.074	0.130	0.34	0.33
		Left Cheek	0.228	0.367	0.391	0.256	0.99	0.88
		Left Tilted	0.231	0.184	0.269	0.180	0.68	0.68
	N41(HPUE)_Ant3	Right Cheek	0.539	0.129	0.086	0.119	0.75	0.74
		Right Tilted	0.184	0.139	0.074	0.130	0.40	0.39
		Left Cheek	0.372	0.367	0.391	0.256	1.13	1.02
		Left Tilted	0.388	0.184	0.269	0.180	0.84	0.84



WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 2_Ant0	Right Cheek	0.840	0.287	0.219	0.119	0.96	0.34
		Right Tilted	0.190	0.311	0.186	0.130	0.32	0.32
		Left Cheek	0.238	0.820	0.941	0.256	0.49	1.20
		Left Tilted	0.103	0.574	0.718	0.180	0.28	0.90
	LTE Band 66_Ant0	Right Cheek	0.807	0.287	0.219	0.119	0.93	0.34
		Right Tilted	0.174	0.311	0.186	0.130	0.30	0.32
		Left Cheek	0.207	0.820	0.941	0.256	0.46	1.20
		Left Tilted	0.085	0.574	0.718	0.180	0.27	0.90

WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	LTE Band 2_Ant0	Right Cheek	0.840	0.129	0.086	0.119	0.97	0.93	0.22	1.05
		Right Tilted	0.190	0.139	0.074	0.130	0.33	0.26	0.21	0.39
		Left Cheek	0.238	0.367	0.391	0.256	0.61	0.63	0.76	0.89
		Left Tilted	0.103	0.184	0.269	0.180	0.29	0.37	0.45	0.55
	LTE Band 66_Ant0	Right Cheek	0.807	0.129	0.086	0.119	0.94	0.89	0.22	1.01
		Right Tilted	0.174	0.139	0.074	0.130	0.31	0.25	0.21	0.38
		Left Cheek	0.207	0.367	0.391	0.256	0.57	0.60	0.76	0.85
		Left Tilted	0.085	0.184	0.269	0.180	0.27	0.35	0.45	0.53

WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
LTE	LTE Band 2_Ant0	Right Cheek	0.840	0.129	0.086	1.06
		Right Tilted	0.190	0.139	0.074	0.40
		Left Cheek	0.238	0.367	0.391	1.00
		Left Tilted	0.103	0.184	0.269	0.56
	LTE Band 66_Ant0	Right Cheek	0.807	0.129	0.086	1.02
		Right Tilted	0.174	0.139	0.074	0.39
		Left Cheek	0.207	0.367	0.391	0.97
		Left Tilted	0.085	0.184	0.269	0.54



**20.3 Hotspot Exposure Conditions**

WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)		
GSM	GSM850_UAT	Front	0.439	0.197	0.317	0.064	0.50	0.38
		Back	0.392	0.891	0.985	0.097	0.49	1.08
		Left side	0.579	0.013	0.044	0.008	0.59	0.05
		Right side	0.017	0.364	0.514	0.025	0.04	0.54
		Top side	0.020	0.374	0.301	0.152	0.17	0.45
		Bottom side					0.00	0.00
	GSM1900_UAT	Front	0.182	0.197	0.317	0.064	0.25	0.38
		Back	0.211	0.891	0.985	0.097	0.31	1.08
		Left side	0.036	0.013	0.044	0.008	0.04	0.05
		Right side	0.026	0.364	0.514	0.025	0.05	0.54
		Top side	0.335	0.374	0.301	0.152	0.49	0.45
		Bottom side					0.00	0.00
WCDMA	WCDMA V_UAT	Front	0.372	0.197	0.317	0.064	0.44	0.38
		Back	0.340	0.891	0.985	0.097	0.44	1.08
		Left side	0.593	0.013	0.044	0.008	0.60	0.05
		Right side	0.015	0.364	0.514	0.025	0.04	0.54
		Top side	0.154	0.374	0.301	0.152	0.31	0.45
		Bottom side					0.00	0.00
	WCDMA IV_UAT	Front	0.333	0.197	0.317	0.064	0.40	0.38
		Back	0.382	0.891	0.985	0.097	0.48	1.08
		Left side	0.146	0.013	0.044	0.008	0.15	0.05
		Right side	0.094	0.364	0.514	0.025	0.12	0.54
		Top side	0.582	0.374	0.301	0.152	0.73	0.45
		Bottom side					0.00	0.00
	WCDMA II_UAT	Front	0.258	0.197	0.317	0.064	0.32	0.38
		Back	0.293	0.891	0.985	0.097	0.39	1.08
		Left side	0.122	0.013	0.044	0.008	0.13	0.05
		Right side	0.059	0.364	0.514	0.025	0.08	0.54
		Top side	0.506	0.374	0.301	0.152	0.66	0.45
		Bottom side					0.00	0.00
CDMA	CDMA2000 BC0_UAT	Front	0.597	0.197	0.317	0.064	0.66	0.38
		Back	0.499	0.891	0.985	0.097	0.60	1.08
		Left side	0.836	0.013	0.044	0.008	0.84	0.05
		Right side	0.033	0.364	0.514	0.025	0.06	0.54
		Top side	0.024	0.374	0.301	0.152	0.18	0.45
		Bottom side					0.00	0.00
	CDMA2000 BC10_UAT	Front	0.536	0.197	0.317	0.064	0.60	0.38
		Back	0.495	0.891	0.985	0.097	0.59	1.08
		Left side	0.770	0.013	0.044	0.008	0.78	0.05
		Right side	0.045	0.364	0.514	0.025	0.07	0.54
		Top side	0.020	0.374	0.301	0.152	0.17	0.45
		Bottom side					0.00	0.00
	CDMA2000 BC1_UAT	Front	0.389	0.197	0.317	0.064	0.45	0.38
		Back	0.362	0.891	0.985	0.097	0.46	1.08
		Left side	0.124	0.013	0.044	0.008	0.13	0.05
		Right side	0.056	0.364	0.514	0.025	0.08	0.54
		Top side	0.589	0.374	0.301	0.152	0.74	0.45
		Bottom side					0.00	0.00
LTE	LTE Band 71_UAT	Front	0.510	0.197	0.317	0.064	0.57	0.38
		Back	0.478	0.891	0.985	0.097	0.58	1.08
		Left side	0.734	0.013	0.044	0.008	0.74	0.05



		Right side	0.032	0.364	0.514	0.025	0.06	0.54
		Top side	0.036	0.374	0.301	0.152	0.19	0.45
		Bottom side					0.00	0.00
	LTE Band 12_UAT	Front	0.571	0.197	0.317	0.064	0.64	0.38
		Back	0.427	0.891	0.985	0.097	0.52	1.08
		Left side	0.698	0.013	0.044	0.008	0.71	0.05
		Right side	0.024	0.364	0.514	0.025	0.05	0.54
		Top side	0.026	0.374	0.301	0.152	0.18	0.45
		Bottom side					0.00	0.00
	LTE Band 13_UAT	Front	0.425	0.197	0.317	0.064	0.49	0.38
		Back	0.324	0.891	0.985	0.097	0.42	1.08
		Left side	0.583	0.013	0.044	0.008	0.59	0.05
		Right side	0.016	0.364	0.514	0.025	0.04	0.54
		Top side	0.014	0.374	0.301	0.152	0.17	0.45
		Bottom side					0.00	0.00
	LTE Band 5_UAT	Front	0.432	0.197	0.317	0.064	0.50	0.38
		Back	0.323	0.891	0.985	0.097	0.42	1.08
		Left side	0.577	0.013	0.044	0.008	0.59	0.05
		Right side	0.019	0.364	0.514	0.025	0.04	0.54
		Top side	0.028	0.374	0.301	0.152	0.18	0.45
		Bottom side					0.00	0.00
LTE Band 26_UAT	Front	0.433	0.197	0.317	0.064	0.50	0.38	
	Back	0.408	0.891	0.985	0.097	0.51	1.08	
	Left side	0.683	0.013	0.044	0.008	0.69	0.05	
	Right side	0.017	0.364	0.514	0.025	0.04	0.54	
	Top side	0.019	0.374	0.301	0.152	0.17	0.45	
	Bottom side					0.00	0.00	
LTE Band 66_UAT	Front	0.249	0.197	0.317	0.064	0.31	0.38	
	Back	0.298	0.891	0.985	0.097	0.40	1.08	
	Left side	0.143	0.013	0.044	0.008	0.15	0.05	
	Right side	0.078	0.364	0.514	0.025	0.10	0.54	
	Top side	0.501	0.374	0.301	0.152	0.65	0.45	
	Bottom side					0.00	0.00	
LTE Band 25_UAT	Front	0.244	0.197	0.317	0.064	0.31	0.38	
	Back	0.321	0.891	0.985	0.097	0.42	1.08	
	Left side	0.097	0.013	0.044	0.008	0.11	0.05	
	Right side	0.062	0.364	0.514	0.025	0.09	0.54	
	Top side	0.503	0.374	0.301	0.152	0.66	0.45	
	Bottom side					0.00	0.00	
LTE Band 30_UAT	Front	0.250	0.197	0.317	0.064	0.31	0.38	
	Back	0.350	0.891	0.985	0.097	0.45	1.08	
	Left side	0.103	0.013	0.044	0.008	0.11	0.05	
	Right side	0.044	0.364	0.514	0.025	0.07	0.54	
	Top side	0.435	0.374	0.301	0.152	0.59	0.45	
	Bottom side					0.00	0.00	
LTE Band 7_UAT	Front	0.094	0.197	0.317	0.064	0.16	0.38	
	Back	0.172	0.891	0.985	0.097	0.27	1.08	
	Left side	0.038	0.013	0.044	0.008	0.05	0.05	
	Right side	0.021	0.364	0.514	0.025	0.05	0.54	
	Top side	0.473	0.374	0.301	0.152	0.63	0.45	
	Bottom side					0.00	0.00	
LTE Band 41_UAT	Front	0.066	0.197	0.317	0.064	0.13	0.38	
	Back	0.119	0.891	0.985	0.097	0.22	1.08	
	Left side	0.018	0.013	0.044	0.008	0.03	0.05	
	Right side	0.017	0.364	0.514	0.025	0.04	0.54	
	Top side	0.311	0.374	0.301	0.152	0.46	0.45	



	LTE Band 41(HPUE)_UAT	Bottom side					0.00	0.00
		Front	0.072	0.197	0.317	0.064	0.14	0.38
		Back	0.132	0.891	0.985	0.097	0.23	1.08
		Left side	0.019	0.013	0.044	0.008	0.03	0.05
		Right side	0.156	0.364	0.514	0.025	0.18	0.54
		Top side	0.322	0.374	0.301	0.152	0.47	0.45
	LTE Band 48-FCC_UAT	Bottom side					0.00	0.00
		Front	0.075	0.197	0.317	0.064	0.14	0.38
		Back	0.293	0.891	0.985	0.097	0.39	1.08
		Left side	0.049	0.013	0.044	0.008	0.06	0.05
		Right side	0.021	0.364	0.514	0.025	0.05	0.54
		Top side	0.134	0.374	0.301	0.152	0.29	0.45
	Bottom side					0.00	0.00	

WWAN Band	Exposure Position	1	2	4	1+2 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2			
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
GSM	GSM850_UAT	Front	0.439	0.127	0.257	0.57	0.38
		Back	0.392	0.545	0.555	0.94	1.10
		Left side	0.579	0.008	0.029	0.59	0.04
		Right side	0.017	0.226	0.326	0.24	0.55
		Top side	0.020	0.234	0.242	0.25	0.48
		Bottom side				0.00	0.00
	GSM1900_UAT	Front	0.182	0.127	0.257	0.31	0.38
		Back	0.211	0.545	0.555	0.76	1.10
		Left side	0.036	0.008	0.029	0.04	0.04
		Right side	0.026	0.226	0.326	0.25	0.55
		Top side	0.335	0.234	0.242	0.57	0.48
		Bottom side				0.00	0.00
WCDMA	WCDMA V_UAT	Front	0.372	0.127	0.257	0.50	0.38
		Back	0.340	0.545	0.555	0.89	1.10
		Left side	0.593	0.008	0.029	0.60	0.04
		Right side	0.015	0.226	0.326	0.24	0.55
		Top side	0.154	0.234	0.242	0.39	0.48
		Bottom side				0.00	0.00
	WCDMA IV_UAT	Front	0.333	0.127	0.257	0.46	0.38
		Back	0.382	0.545	0.555	0.93	1.10
		Left side	0.146	0.008	0.029	0.15	0.04
		Right side	0.094	0.226	0.326	0.32	0.55
		Top side	0.582	0.234	0.242	0.82	0.48
		Bottom side				0.00	0.00
	WCDMA II_UAT	Front	0.258	0.127	0.257	0.39	0.38
		Back	0.293	0.545	0.555	0.84	1.10
		Left side	0.122	0.008	0.029	0.13	0.04
		Right side	0.059	0.226	0.326	0.29	0.55
		Top side	0.506	0.234	0.242	0.74	0.48
		Bottom side				0.00	0.00
CDMA	CDMA2000 BC0_UAT	Front	0.597	0.127	0.257	0.72	0.38
		Back	0.499	0.545	0.555	1.04	1.10
		Left side	0.836	0.008	0.029	0.84	0.04
		Right side	0.033	0.226	0.326	0.26	0.55
		Top side	0.024	0.234	0.242	0.26	0.48
		Bottom side				0.00	0.00
	CDMA2000 BC10_UAT	Front	0.536	0.127	0.257	0.66	0.38
		Back	0.495	0.545	0.555	1.04	1.10





		Left side	0.770	0.008	0.029	0.78	0.04		
		Right side	0.045	0.226	0.326	0.27	0.55		
		Top side	0.020	0.234	0.242	0.25	0.48		
		Bottom side				0.00	0.00		
	CDMA2000 BC1_UAT	Front	0.389	0.127	0.257	0.52	0.38		
		Back	0.362	0.545	0.555	0.91	1.10		
		Left side	0.124	0.008	0.029	0.13	0.04		
		Right side	0.056	0.226	0.326	0.28	0.55		
		Top side	0.589	0.234	0.242	0.82	0.48		
		Bottom side				0.00	0.00		
		LTE	LTE Band 71_UAT	Front	0.510	0.127	0.257	0.64	0.38
				Back	0.478	0.545	0.555	1.02	1.10
	Left side			0.734	0.008	0.029	0.74	0.04	
	Right side			0.032	0.226	0.326	0.26	0.55	
Top side	0.036			0.234	0.242	0.27	0.48		
Bottom side						0.00	0.00		
LTE Band 12_UAT	Front		0.571	0.127	0.257	0.70	0.38		
	Back		0.427	0.545	0.555	0.97	1.10		
	Left side		0.698	0.008	0.029	0.71	0.04		
	Right side		0.024	0.226	0.326	0.25	0.55		
	Top side		0.026	0.234	0.242	0.26	0.48		
	Bottom side					0.00	0.00		
LTE Band 13_UAT	Front		0.425	0.127	0.257	0.55	0.38		
	Back		0.324	0.545	0.555	0.87	1.10		
	Left side	0.583	0.008	0.029	0.59	0.04			
	Right side	0.016	0.226	0.326	0.24	0.55			
	Top side	0.014	0.234	0.242	0.25	0.48			
	Bottom side				0.00	0.00			
LTE Band 5_UAT	Front	0.432	0.127	0.257	0.56	0.38			
	Back	0.323	0.545	0.555	0.87	1.10			
	Left side	0.577	0.008	0.029	0.59	0.04			
	Right side	0.019	0.226	0.326	0.25	0.55			
	Top side	0.028	0.234	0.242	0.26	0.48			
	Bottom side				0.00	0.00			
LTE Band 26_UAT	Front	0.433	0.127	0.257	0.56	0.38			
	Back	0.408	0.545	0.555	0.95	1.10			
	Left side	0.683	0.008	0.029	0.69	0.04			
	Right side	0.017	0.226	0.326	0.24	0.55			
	Top side	0.019	0.234	0.242	0.25	0.48			
	Bottom side				0.00	0.00			
LTE Band 66_UAT	Front	0.249	0.127	0.257	0.38	0.38			
	Back	0.298	0.545	0.555	0.84	1.10			
	Left side	0.143	0.008	0.029	0.15	0.04			
	Right side	0.078	0.226	0.326	0.30	0.55			
	Top side	0.501	0.234	0.242	0.74	0.48			
	Bottom side				0.00	0.00			
LTE Band 25_UAT	Front	0.244	0.127	0.257	0.37	0.38			
	Back	0.321	0.545	0.555	0.87	1.10			
	Left side	0.097	0.008	0.029	0.11	0.04			
	Right side	0.062	0.226	0.326	0.29	0.55			
	Top side	0.503	0.234	0.242	0.74	0.48			
	Bottom side				0.00	0.00			
LTE Band 30_UAT	Front	0.250	0.127	0.257	0.38	0.38			
	Back	0.350	0.545	0.555	0.90	1.10			
	Left side	0.103	0.008	0.029	0.11	0.04			
	Right side	0.044	0.226	0.326	0.27	0.55			



		Top side	0.435	0.234	0.242	0.67	0.48
		Bottom side				0.00	0.00
	LTE Band 7_UAT	Front	0.094	0.127	0.257	0.22	0.38
		Back	0.172	0.545	0.555	0.72	1.10
		Left side	0.038	0.008	0.029	0.05	0.04
		Right side	0.021	0.226	0.326	0.25	0.55
		Top side	0.473	0.234	0.242	0.71	0.48
		Bottom side				0.00	0.00
	LTE Band 41_UAT	Front	0.066	0.127	0.257	0.19	0.38
		Back	0.119	0.545	0.555	0.66	1.10
		Left side	0.018	0.008	0.029	0.03	0.04
		Right side	0.017	0.226	0.326	0.24	0.55
		Top side	0.311	0.234	0.242	0.55	0.48
		Bottom side				0.00	0.00
	LTE Band 41(HPUE)_UAT	Front	0.072	0.127	0.257	0.20	0.38
		Back	0.132	0.545	0.555	0.68	1.10
		Left side	0.019	0.008	0.029	0.03	0.04
		Right side	0.156	0.226	0.326	0.38	0.55
		Top side	0.322	0.234	0.242	0.56	0.48
		Bottom side				0.00	0.00
LTE Band 48_UAT	Front	0.075	0.127	0.257	0.20	0.38	
	Back	0.293	0.545	0.555	0.84	1.10	
	Left side	0.049	0.008	0.029	0.06	0.04	
	Right side	0.021	0.226	0.326	0.25	0.55	
	Top side	0.134	0.234	0.242	0.37	0.48	
	Bottom side				0.00	0.00	



WWAN Band		Exposure Position	1	4	6	1+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_UAT	Front	0.439	0.125	0.064	0.56	0.63
		Back	0.392	0.284	0.097	0.68	0.77
		Left side	0.579	0.013	0.008	0.59	0.60
		Right side	0.017	0.166	0.025	0.18	0.21
		Top side	0.020	0.124	0.152	0.14	0.30
		Bottom side				0.00	0.00
	GSM1900_UAT	Front	0.182	0.125	0.064	0.31	0.37
		Back	0.211	0.284	0.097	0.50	0.59
		Left side	0.036	0.013	0.008	0.05	0.06
		Right side	0.026	0.166	0.025	0.19	0.22
		Top side	0.335	0.124	0.152	0.46	0.61
		Bottom side				0.00	0.00
WCDMA	WCDMA V_UAT	Front	0.372	0.125	0.064	0.50	0.56
		Back	0.340	0.284	0.097	0.62	0.72
		Left side	0.593	0.013	0.008	0.61	0.61
		Right side	0.015	0.166	0.025	0.18	0.21
		Top side	0.154	0.124	0.152	0.28	0.43
		Bottom side				0.00	0.00
	WCDMA IV_UAT	Front	0.333	0.125	0.064	0.46	0.52
		Back	0.382	0.284	0.097	0.67	0.76
		Left side	0.146	0.013	0.008	0.16	0.17
		Right side	0.094	0.166	0.025	0.26	0.29
		Top side	0.582	0.124	0.152	0.71	0.86
		Bottom side				0.00	0.00
	WCDMA II_UAT	Front	0.258	0.125	0.064	0.38	0.45
		Back	0.293	0.284	0.097	0.58	0.67
		Left side	0.122	0.013	0.008	0.14	0.14
		Right side	0.059	0.166	0.025	0.23	0.25
		Top side	0.506	0.124	0.152	0.63	0.78
		Bottom side				0.00	0.00
CDMA	CDMA2000 BC0_UAT	Front	0.597	0.125	0.064	0.72	0.79
		Back	0.499	0.284	0.097	0.78	0.88
		Left side	0.836	0.013	0.008	0.85	0.86
		Right side	0.033	0.166	0.025	0.20	0.22
		Top side	0.024	0.124	0.152	0.15	0.30
		Bottom side				0.00	0.00
	CDMA2000 BC10_UAT	Front	0.536	0.125	0.064	0.66	0.73
		Back	0.495	0.284	0.097	0.78	0.88
		Left side	0.770	0.013	0.008	0.78	0.79
		Right side	0.045	0.166	0.025	0.21	0.24
		Top side	0.020	0.124	0.152	0.14	0.30
		Bottom side				0.00	0.00
	CDMA2000 BC1_UAT	Front	0.389	0.125	0.064	0.51	0.58
		Back	0.362	0.284	0.097	0.65	0.74
		Left side	0.124	0.013	0.008	0.14	0.15
		Right side	0.056	0.166	0.025	0.22	0.25
		Top side	0.589	0.124	0.152	0.71	0.87
		Bottom side				0.00	0.00
LTE	LTE Band 71_UAT	Front	0.510	0.125	0.064	0.64	0.70
		Back	0.478	0.284	0.097	0.76	0.86
		Left side	0.734	0.013	0.008	0.75	0.76



		Right side	0.032	0.166	0.025	0.20	0.22	
		Top side	0.036	0.124	0.152	0.16	0.31	
		Bottom side				0.00	0.00	
	LTE Band 12_UAT		Front	0.571	0.125	0.064	0.70	0.76
			Back	0.427	0.284	0.097	0.71	0.81
			Left side	0.698	0.013	0.008	0.71	0.72
			Right side	0.024	0.166	0.025	0.19	0.22
			Top side	0.026	0.124	0.152	0.15	0.30
			Bottom side				0.00	0.00
	LTE Band 13_UAT		Front	0.425	0.125	0.064	0.55	0.61
			Back	0.324	0.284	0.097	0.61	0.71
			Left side	0.583	0.013	0.008	0.60	0.60
			Right side	0.016	0.166	0.025	0.18	0.21
			Top side	0.014	0.124	0.152	0.14	0.29
			Bottom side				0.00	0.00
	LTE Band 5_UAT		Front	0.432	0.125	0.064	0.56	0.62
			Back	0.323	0.284	0.097	0.61	0.70
			Left side	0.577	0.013	0.008	0.59	0.60
			Right side	0.019	0.166	0.025	0.19	0.21
			Top side	0.028	0.124	0.152	0.15	0.30
			Bottom side				0.00	0.00
	LTE Band 26_UAT		Front	0.433	0.125	0.064	0.56	0.62
			Back	0.408	0.284	0.097	0.69	0.79
			Left side	0.683	0.013	0.008	0.70	0.70
			Right side	0.017	0.166	0.025	0.18	0.21
			Top side	0.019	0.124	0.152	0.14	0.30
			Bottom side				0.00	0.00
LTE Band 66_UAT		Front	0.249	0.125	0.064	0.37	0.44	
		Back	0.298	0.284	0.097	0.58	0.68	
		Left side	0.143	0.013	0.008	0.16	0.16	
		Right side	0.078	0.166	0.025	0.24	0.27	
		Top side	0.501	0.124	0.152	0.63	0.78	
		Bottom side				0.00	0.00	
LTE Band 25_UAT		Front	0.244	0.125	0.064	0.37	0.43	
		Back	0.321	0.284	0.097	0.61	0.70	
		Left side	0.097	0.013	0.008	0.11	0.12	
		Right side	0.062	0.166	0.025	0.23	0.25	
		Top side	0.503	0.124	0.152	0.63	0.78	
		Bottom side				0.00	0.00	
LTE Band 30_UAT		Front	0.250	0.125	0.064	0.38	0.44	
		Back	0.350	0.284	0.097	0.63	0.73	
		Left side	0.103	0.013	0.008	0.12	0.12	
		Right side	0.044	0.166	0.025	0.21	0.24	
		Top side	0.435	0.124	0.152	0.56	0.71	
		Bottom side				0.00	0.00	
LTE Band 7_UAT		Front	0.094	0.125	0.064	0.22	0.28	
		Back	0.172	0.284	0.097	0.46	0.55	
		Left side	0.038	0.013	0.008	0.05	0.06	
		Right side	0.021	0.166	0.025	0.19	0.21	
		Top side	0.473	0.124	0.152	0.60	0.75	
		Bottom side				0.00	0.00	
LTE Band 41_UAT		Front	0.066	0.125	0.064	0.19	0.26	
		Back	0.119	0.284	0.097	0.40	0.50	
		Left side	0.018	0.013	0.008	0.03	0.04	
		Right side	0.017	0.166	0.025	0.18	0.21	
		Top side	0.311	0.124	0.152	0.44	0.59	



	LTE Band 41(HPUE)_UAT	Bottom side				0.00	0.00
		Front	0.072	0.125	0.064	0.20	0.26
		Back	0.132	0.284	0.097	0.42	0.51
		Left side	0.019	0.013	0.008	0.03	0.04
		Right side	0.156	0.166	0.025	0.32	0.35
		Top side	0.322	0.124	0.152	0.45	0.60
		Bottom side				0.00	0.00
	LTE Band 48 _UAT	Front	0.075	0.125	0.064	0.20	0.26
		Back	0.293	0.284	0.097	0.58	0.67
		Left side	0.049	0.013	0.008	0.06	0.07
		Right side	0.021	0.166	0.025	0.19	0.21
		Top side	0.134	0.124	0.152	0.26	0.41
		Bottom side				0.00	0.00



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	
GSM	GSM850_UAT	Front	0.439	0.063	0.125	0.63
		Back	0.392	0.268	0.284	0.94
		Left side	0.579	0.004	0.013	0.60
		Right side	0.017	0.122	0.166	0.31
		Top side	0.020	0.129	0.124	0.27
		Bottom side				0.00
	GSM1900_UAT	Front	0.182	0.063	0.125	0.37
		Back	0.211	0.268	0.284	0.76
		Left side	0.036	0.004	0.013	0.05
		Right side	0.026	0.122	0.166	0.31
		Top side	0.335	0.129	0.124	0.59
		Bottom side				0.00
WCDMA	WCDMA V_UAT	Front	0.372	0.063	0.125	0.56
		Back	0.340	0.268	0.284	0.89
		Left side	0.593	0.004	0.013	0.61
		Right side	0.015	0.122	0.166	0.30
		Top side	0.154	0.129	0.124	0.41
		Bottom side				0.00
	WCDMA IV_UAT	Front	0.333	0.063	0.125	0.52
		Back	0.382	0.268	0.284	0.93
		Left side	0.146	0.004	0.013	0.16
		Right side	0.094	0.122	0.166	0.38
		Top side	0.582	0.129	0.124	0.84
		Bottom side				0.00
	WCDMA II_UAT	Front	0.258	0.063	0.125	0.45
		Back	0.293	0.268	0.284	0.85
		Left side	0.122	0.004	0.013	0.14
		Right side	0.059	0.122	0.166	0.35
		Top side	0.506	0.129	0.124	0.76
		Bottom side				0.00
CDMA	CDMA2000 BC0_UAT	Front	0.597	0.063	0.125	0.79
		Back	0.499	0.268	0.284	1.05
		Left side	0.836	0.004	0.013	0.85
		Right side	0.033	0.122	0.166	0.32
		Top side	0.024	0.129	0.124	0.28
		Bottom side				0.00
	CDMA2000 BC10_UAT	Front	0.536	0.063	0.125	0.72
		Back	0.495	0.268	0.284	1.05
		Left side	0.770	0.004	0.013	0.79
		Right side	0.045	0.122	0.166	0.33
		Top side	0.020	0.129	0.124	0.27
		Bottom side				0.00
	CDMA2000 BC1_UAT	Front	0.389	0.063	0.125	0.58
		Back	0.362	0.268	0.284	0.91
		Left side	0.124	0.004	0.013	0.14
		Right side	0.056	0.122	0.166	0.34
		Top side	0.589	0.129	0.124	0.84
		Bottom side				0.00
LTE	LTE Band 71_UAT	Front	0.510	0.063	0.125	0.70
		Back	0.478	0.268	0.284	1.03
		Left side	0.734	0.004	0.013	0.75



		Right side	0.032	0.122	0.166	0.32
		Top side	0.036	0.129	0.124	0.29
		Bottom side				0.00
	LTE Band 12_UAT	Front	0.571	0.063	0.125	0.76
		Back	0.427	0.268	0.284	0.98
		Left side	0.698	0.004	0.013	0.72
		Right side	0.024	0.122	0.166	0.31
		Top side	0.026	0.129	0.124	0.28
		Bottom side				0.00
	LTE Band 13_UAT	Front	0.425	0.063	0.125	0.61
		Back	0.324	0.268	0.284	0.88
		Left side	0.583	0.004	0.013	0.60
		Right side	0.016	0.122	0.166	0.30
		Top side	0.014	0.129	0.124	0.27
		Bottom side				0.00
	LTE Band 5_UAT	Front	0.432	0.063	0.125	0.62
		Back	0.323	0.268	0.284	0.88
		Left side	0.577	0.004	0.013	0.59
		Right side	0.019	0.122	0.166	0.31
		Top side	0.028	0.129	0.124	0.28
		Bottom side				0.00
	LTE Band 26_UAT	Front	0.433	0.063	0.125	0.62
		Back	0.408	0.268	0.284	0.96
		Left side	0.683	0.004	0.013	0.70
		Right side	0.017	0.122	0.166	0.31
		Top side	0.019	0.129	0.124	0.27
		Bottom side				0.00
	LTE Band 66_UAT	Front	0.249	0.063	0.125	0.44
Back		0.298	0.268	0.284	0.85	
Left side		0.143	0.004	0.013	0.16	
Right side		0.078	0.122	0.166	0.37	
Top side		0.501	0.129	0.124	0.75	
Bottom side					0.00	
LTE Band 25_UAT	Front	0.244	0.063	0.125	0.43	
	Back	0.321	0.268	0.284	0.87	
	Left side	0.097	0.004	0.013	0.11	
	Right side	0.062	0.122	0.166	0.35	
	Top side	0.503	0.129	0.124	0.76	
	Bottom side				0.00	
LTE Band 30_UAT	Front	0.250	0.063	0.125	0.44	
	Back	0.350	0.268	0.284	0.90	
	Left side	0.103	0.004	0.013	0.12	
	Right side	0.044	0.122	0.166	0.33	
	Top side	0.435	0.129	0.124	0.69	
	Bottom side				0.00	
LTE Band 7_UAT	Front	0.094	0.063	0.125	0.28	
	Back	0.172	0.268	0.284	0.72	
	Left side	0.038	0.004	0.013	0.06	
	Right side	0.021	0.122	0.166	0.31	
	Top side	0.473	0.129	0.124	0.73	
	Bottom side				0.00	
LTE Band 41_UAT	Front	0.066	0.063	0.125	0.25	
	Back	0.119	0.268	0.284	0.67	
	Left side	0.018	0.004	0.013	0.04	
	Right side	0.017	0.122	0.166	0.31	
	Top side	0.311	0.129	0.124	0.56	



	LTE Band 41(HPUE)_UAT	Bottom side				0.00
		Front	0.072	0.063	0.125	0.26
		Back	0.132	0.268	0.284	0.68
		Left side	0.019	0.004	0.013	0.04
		Right side	0.156	0.122	0.166	0.44
		Top side	0.322	0.129	0.124	0.58
		Bottom side				0.00
	LTE Band 48_UAT	Front	0.075	0.063	0.125	0.26
		Back	0.293	0.268	0.284	0.85
		Left side	0.049	0.004	0.013	0.07
		Right side	0.021	0.122	0.166	0.31
		Top side	0.134	0.129	0.124	0.39
		Bottom side				0.00





WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_LAT	Front	0.374	0.197	0.317	0.064	0.44	0.38
		Back	0.560	0.891	0.985	0.097	0.66	1.08
		Left side	0.294	0.013	0.044	0.008	0.30	0.05
		Right side	0.265	0.364	0.514	0.025	0.29	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.267				0.27	0.00
	GSM1900_LAT	Front	0.340	0.197	0.317	0.064	0.40	0.38
		Back	0.390	0.891	0.985	0.097	0.49	1.08
		Left side	0.129	0.013	0.044	0.008	0.14	0.05
		Right side	0.106	0.364	0.514	0.025	0.13	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.518				0.52	0.00
WCDMA	WCDMA V_LAT	Front	0.467	0.197	0.317	0.064	0.53	0.38
		Back	0.623	0.891	0.985	0.097	0.72	1.08
		Left side	0.310	0.013	0.044	0.008	0.32	0.05
		Right side	0.343	0.364	0.514	0.025	0.37	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.307				0.31	0.00
	WCDMA IV_LAT	Front	0.372	0.197	0.317	0.064	0.44	0.38
		Back	0.484	0.891	0.985	0.097	0.58	1.08
		Left side	0.100	0.013	0.044	0.008	0.11	0.05
		Right side	0.084	0.364	0.514	0.025	0.11	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.642				0.64	0.00
	WCDMA II_LAT	Front	0.333	0.197	0.317	0.064	0.40	0.38
		Back	0.411	0.891	0.985	0.097	0.51	1.08
		Left side	0.108	0.013	0.044	0.008	0.12	0.05
		Right side	0.085	0.364	0.514	0.025	0.11	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.568				0.57	0.00
CDMA	CDMA2000 BC0_LAT	Front	0.376	0.197	0.317	0.064	0.44	0.38
		Back	0.552	0.891	0.985	0.097	0.65	1.08
		Left side	0.151	0.013	0.044	0.008	0.16	0.05
		Right side	0.303	0.364	0.514	0.025	0.33	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.261				0.26	0.00
	CDMA2000 BC10_LAT	Front	0.378	0.197	0.317	0.064	0.44	0.38
		Back	0.579	0.891	0.985	0.097	0.68	1.08
		Left side	0.163	0.013	0.044	0.008	0.17	0.05
		Right side	0.290	0.364	0.514	0.025	0.32	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.253				0.25	0.00
	CDMA2000 BC1_LAT	Front	0.390	0.197	0.317	0.064	0.45	0.38
		Back	0.591	0.891	0.985	0.097	0.69	1.08
		Left side	0.157	0.013	0.044	0.008	0.17	0.05
		Right side	0.122	0.364	0.514	0.025	0.15	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.823				0.82	0.00
LTE	LTE Band 71_LAT	Front	0.378	0.197	0.317	0.064	0.44	0.38
		Back	0.502	0.891	0.985	0.097	0.60	1.08
		Left side	0.238	0.013	0.044	0.008	0.25	0.05



		Right side	0.286	0.364	0.514	0.025	0.31	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.159				0.16	0.00
	LTE Band 12_LAT	Front	0.463	0.197	0.317	0.064	0.53	0.38
		Back	0.619	0.891	0.985	0.097	0.72	1.08
		Left side	0.360	0.013	0.044	0.008	0.37	0.05
		Right side	0.297	0.364	0.514	0.025	0.32	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.238				0.24	0.00
	LTE Band 13_LAT	Front	0.409	0.197	0.317	0.064	0.47	0.38
		Back	0.565	0.891	0.985	0.097	0.66	1.08
		Left side	0.322	0.013	0.044	0.008	0.33	0.05
		Right side	0.254	0.364	0.514	0.025	0.28	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.222				0.22	0.00
	LTE Band 5_LAT	Front	0.424	0.197	0.317	0.064	0.49	0.38
		Back	0.515	0.891	0.985	0.097	0.61	1.08
		Left side	0.219	0.013	0.044	0.008	0.23	0.05
		Right side	0.351	0.364	0.514	0.025	0.38	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.310				0.31	0.00
	LTE Band 26_LAT	Front	0.281	0.197	0.317	0.064	0.35	0.38
		Back	0.434	0.891	0.985	0.097	0.53	1.08
		Left side	0.115	0.013	0.044	0.008	0.12	0.05
		Right side	0.227	0.364	0.514	0.025	0.25	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.211				0.21	0.00
	LTE Band 66_LAT	Front	0.306	0.197	0.317	0.064	0.37	0.38
Back		0.417	0.891	0.985	0.097	0.51	1.08	
Left side		0.107	0.013	0.044	0.008	0.12	0.05	
Right side		0.091	0.364	0.514	0.025	0.12	0.54	
Top side			0.374	0.301	0.152	0.15	0.45	
Bottom side		0.546				0.55	0.00	
LTE Band 25_LAT	Front	0.371	0.197	0.317	0.064	0.44	0.38	
	Back	0.465	0.891	0.985	0.097	0.56	1.08	
	Left side	0.119	0.013	0.044	0.008	0.13	0.05	
	Right side	0.090	0.364	0.514	0.025	0.12	0.54	
	Top side		0.374	0.301	0.152	0.15	0.45	
	Bottom side	0.614				0.61	0.00	
LTE Band 30_LAT	Front	0.285	0.197	0.317	0.064	0.35	0.38	
	Back	0.395	0.891	0.985	0.097	0.49	1.08	
	Left side	0.046	0.013	0.044	0.008	0.05	0.05	
	Right side	0.019	0.364	0.514	0.025	0.04	0.54	
	Top side		0.374	0.301	0.152	0.15	0.45	
	Bottom side	0.328				0.33	0.00	
LTE Band 7_LAT	Front	0.312	0.197	0.317	0.064	0.38	0.38	
	Back	0.550	0.891	0.985	0.097	0.65	1.08	
	Left side	0.139	0.013	0.044	0.008	0.15	0.05	
	Right side	0.158	0.364	0.514	0.025	0.18	0.54	
	Top side		0.374	0.301	0.152	0.15	0.45	
	Bottom side	0.525				0.53	0.00	
LTE Band 41_LAT	Front	0.307	0.197	0.317	0.064	0.37	0.38	
	Back	0.566	0.891	0.985	0.097	0.66	1.08	
	Left side	0.088	0.013	0.044	0.008	0.10	0.05	
	Right side	0.064	0.364	0.514	0.025	0.09	0.54	
	Top side		0.374	0.301	0.152	0.15	0.45	



LTE Band 41(HPUE)_LAT	Bottom side	0.340				0.34	0.00
	Front	0.317	0.197	0.317	0.064	0.38	0.38
	Back	0.579	0.891	0.985	0.097	0.68	1.08
	Left side	0.083	0.013	0.044	0.008	0.09	0.05
	Right side	0.070	0.364	0.514	0.025	0.10	0.54
	Top side		0.374	0.301	0.152	0.15	0.45
	Bottom side	0.375				0.38	0.00

WWAN Band	Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1					
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
GSM	GSM850_LAT	Front	0.374	0.127	0.257	0.064	0.50	0.63	0.38	0.70
		Back	0.560	0.545	0.555	0.097	1.11	1.12	1.10	1.21
		Left side	0.294	0.008	0.029	0.008	0.30	0.32	0.04	0.33
		Right side	0.265	0.226	0.326	0.025	0.49	0.59	0.55	0.62
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.267				0.27	0.27	0.00	0.27
	GSM1900_LAT	Front	0.340	0.127	0.257	0.064	0.47	0.60	0.38	0.66
		Back	0.390	0.545	0.555	0.097	0.94	0.95	1.10	1.04
		Left side	0.129	0.008	0.029	0.008	0.14	0.16	0.04	0.17
		Right side	0.106	0.226	0.326	0.025	0.33	0.43	0.55	0.46
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.518				0.52	0.52	0.00	0.52
WCDMA	WCDMA V_LAT	Front	0.467	0.127	0.257	0.064	0.59	0.72	0.38	0.79
		Back	0.623	0.545	0.555	0.097	1.17	1.18	1.10	1.28
		Left side	0.310	0.008	0.029	0.008	0.32	0.34	0.04	0.35
		Right side	0.343	0.226	0.326	0.025	0.57	0.67	0.55	0.69
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.307				0.31	0.31	0.00	0.31
	WCDMA IV_LAT	Front	0.372	0.127	0.257	0.064	0.50	0.63	0.38	0.69
		Back	0.484	0.545	0.555	0.097	1.03	1.04	1.10	1.14
		Left side	0.100	0.008	0.029	0.008	0.11	0.13	0.04	0.14
		Right side	0.084	0.226	0.326	0.025	0.31	0.41	0.55	0.44
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.642				0.64	0.64	0.00	0.64
	WCDMA II_LAT	Front	0.333	0.127	0.257	0.064	0.46	0.59	0.38	0.65
		Back	0.411	0.545	0.555	0.097	0.96	0.97	1.10	1.06
		Left side	0.108	0.008	0.029	0.008	0.12	0.14	0.04	0.15
		Right side	0.085	0.226	0.326	0.025	0.31	0.41	0.55	0.44
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.568				0.57	0.57	0.00	0.57
CDMA	CDMA2000 BC0_LAT	Front	0.376	0.127	0.257	0.064	0.50	0.63	0.38	0.70
		Back	0.552	0.545	0.555	0.097	1.10	1.11	1.10	1.20
		Left side	0.151	0.008	0.029	0.008	0.16	0.18	0.04	0.19



		Right side	0.303	0.226	0.326	0.025	0.53	0.63	0.55	0.65	
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39	
		Bottom side	0.261				0.26	0.26	0.00	0.26	
	CDMA2000 BC10_LAT	Front	0.378	0.127	0.257	0.064	0.51	0.64	0.38	0.70	
		Back	0.579	0.545	0.555	0.097	1.12	1.13	1.10	1.23	
		Left side	0.163	0.008	0.029	0.008	0.17	0.19	0.04	0.20	
		Right side	0.290	0.226	0.326	0.025	0.52	0.62	0.55	0.64	
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39	
		Bottom side	0.253				0.25	0.25	0.00	0.25	
	CDMA2000 BC1_LAT	Front	0.390	0.127	0.257	0.064	0.52	0.65	0.38	0.71	
		Back	0.591	0.545	0.555	0.097	1.14	1.15	1.10	1.24	
		Left side	0.157	0.008	0.029	0.008	0.17	0.19	0.04	0.19	
		Right side	0.122	0.226	0.326	0.025	0.35	0.45	0.55	0.47	
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39	
		Bottom side	0.823				0.82	0.82	0.00	0.82	
	LTE	LTE Band 71_LAT	Front	0.378	0.127	0.257	0.064	0.51	0.64	0.38	0.70
			Back	0.502	0.545	0.555	0.097	1.05	1.06	1.10	1.15
			Left side	0.238	0.008	0.029	0.008	0.25	0.27	0.04	0.28
Right side			0.286	0.226	0.326	0.025	0.51	0.61	0.55	0.64	
Top side				0.234	0.242	0.152	0.23	0.24	0.48	0.39	
Bottom side			0.159				0.16	0.16	0.00	0.16	
LTE Band 12_LAT		Front	0.463	0.127	0.257	0.064	0.59	0.72	0.38	0.78	
		Back	0.619	0.545	0.555	0.097	1.16	1.17	1.10	1.27	
		Left side	0.360	0.008	0.029	0.008	0.37	0.39	0.04	0.40	
		Right side	0.297	0.226	0.326	0.025	0.52	0.62	0.55	0.65	
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39	
		Bottom side	0.238				0.24	0.24	0.00	0.24	
LTE Band 13_LAT		Front	0.409	0.127	0.257	0.064	0.54	0.67	0.38	0.73	
		Back	0.565	0.545	0.555	0.097	1.11	1.12	1.10	1.22	
		Left side	0.322	0.008	0.029	0.008	0.33	0.35	0.04	0.36	
		Right side	0.254	0.226	0.326	0.025	0.48	0.58	0.55	0.61	
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39	
		Bottom side	0.222				0.22	0.22	0.00	0.22	
LTE Band 5_LAT		Front	0.424	0.127	0.257	0.064	0.55	0.68	0.38	0.75	
		Back	0.515	0.545	0.555	0.097	1.06	1.07	1.10	1.17	
		Left side	0.219	0.008	0.029	0.008	0.23	0.25	0.04	0.26	
		Right side	0.351	0.226	0.326	0.025	0.58	0.68	0.55	0.70	
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39	
		Bottom side	0.310				0.31	0.31	0.00	0.31	
LTE Band 26_LAT	Front	0.281	0.127	0.257	0.064	0.41	0.54	0.38	0.60		
	Back	0.434	0.545	0.555	0.097	0.98	0.99	1.10	1.09		
	Left side	0.115	0.008	0.029	0.008	0.12	0.14	0.04	0.15		
	Right side	0.227	0.226	0.326	0.025	0.45	0.55	0.55	0.58		



		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.211				0.21	0.21	0.00	0.21
LTE Band 66_LAT		Front	0.306	0.127	0.257	0.064	0.43	0.56	0.38	0.63
		Back	0.417	0.545	0.555	0.097	0.96	0.97	1.10	1.07
		Left side	0.107	0.008	0.029	0.008	0.12	0.14	0.04	0.14
		Right side	0.091	0.226	0.326	0.025	0.32	0.42	0.55	0.44
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.546				0.55	0.55	0.00	0.55
LTE Band 25_LAT		Front	0.371	0.127	0.257	0.064	0.50	0.63	0.38	0.69
		Back	0.465	0.545	0.555	0.097	1.01	1.02	1.10	1.12
		Left side	0.119	0.008	0.029	0.008	0.13	0.15	0.04	0.16
		Right side	0.090	0.226	0.326	0.025	0.32	0.42	0.55	0.44
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.614				0.61	0.61	0.00	0.61
LTE Band 30_LAT		Front	0.285	0.127	0.257	0.064	0.41	0.54	0.38	0.61
		Back	0.395	0.545	0.555	0.097	0.94	0.95	1.10	1.05
		Left side	0.046	0.008	0.029	0.008	0.05	0.08	0.04	0.08
		Right side	0.019	0.226	0.326	0.025	0.25	0.35	0.55	0.37
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.328				0.33	0.33	0.00	0.33
LTE Band 7_LAT		Front	0.312	0.127	0.257	0.064	0.44	0.57	0.38	0.63
		Back	0.550	0.545	0.555	0.097	1.10	1.11	1.10	1.20
		Left side	0.139	0.008	0.029	0.008	0.15	0.17	0.04	0.18
		Right side	0.158	0.226	0.326	0.025	0.38	0.48	0.55	0.51
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.525				0.53	0.53	0.00	0.53
LTE Band 41_LAT		Front	0.307	0.127	0.257	0.064	0.43	0.56	0.38	0.63
		Back	0.566	0.545	0.555	0.097	1.11	1.12	1.10	1.22
		Left side	0.088	0.008	0.029	0.008	0.10	0.12	0.04	0.13
		Right side	0.064	0.226	0.326	0.025	0.29	0.39	0.55	0.42
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.340				0.34	0.34	0.00	0.34
LTE Band 41(HPUE)_LAT		Front	0.317	0.127	0.257	0.064	0.44	0.57	0.38	0.64
		Back	0.579	0.545	0.555	0.097	1.12	1.13	1.10	1.23
		Left side	0.083	0.008	0.029	0.008	0.09	0.11	0.04	0.12
		Right side	0.070	0.226	0.326	0.025	0.30	0.40	0.55	0.42
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.375				0.38	0.38	0.00	0.38



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
GSM	GSM850_LAT	Front	0.374	0.063	0.125	0.56
		Back	0.560	0.268	0.284	1.11
		Left side	0.294	0.004	0.013	0.31
		Right side	0.265	0.122	0.166	0.55
		Top side		0.129	0.124	0.25
		Bottom side	0.267			0.27
	GSM1900_LAT	Front	0.340	0.063	0.125	0.53
		Back	0.390	0.268	0.284	0.94
		Left side	0.129	0.004	0.013	0.15
		Right side	0.106	0.122	0.166	0.39
		Top side		0.129	0.124	0.25
		Bottom side	0.518			0.52
WCDMA	WCDMA V_LAT	Front	0.467	0.063	0.125	0.66
		Back	0.623	0.268	0.284	1.18
		Left side	0.310	0.004	0.013	0.33
		Right side	0.343	0.122	0.166	0.63
		Top side		0.129	0.124	0.25
		Bottom side	0.307			0.31
	WCDMA IV_LAT	Front	0.372	0.063	0.125	0.56
		Back	0.484	0.268	0.284	1.04
		Left side	0.100	0.004	0.013	0.12
		Right side	0.084	0.122	0.166	0.37
		Top side		0.129	0.124	0.25
		Bottom side	0.642			0.64
	WCDMA II_LAT	Front	0.333	0.063	0.125	0.52
		Back	0.411	0.268	0.284	0.96
		Left side	0.108	0.004	0.013	0.13
		Right side	0.085	0.122	0.166	0.37
		Top side		0.129	0.124	0.25
		Bottom side	0.568			0.57
CDMA	CDMA2000 BC0_LAT	Front	0.376	0.063	0.125	0.56
		Back	0.552	0.268	0.284	1.10
		Left side	0.151	0.004	0.013	0.17
		Right side	0.303	0.122	0.166	0.59
		Top side		0.129	0.124	0.25
		Bottom side	0.261			0.26
	CDMA2000 BC10_LAT	Front	0.378	0.063	0.125	0.57
		Back	0.579	0.268	0.284	1.13
		Left side	0.163	0.004	0.013	0.18
		Right side	0.290	0.122	0.166	0.58
		Top side		0.129	0.124	0.25
		Bottom side	0.253			0.25
	CDMA2000 BC1_LAT	Front	0.390	0.063	0.125	0.58
		Back	0.591	0.268	0.284	1.14
		Left side	0.157	0.004	0.013	0.17
		Right side	0.122	0.122	0.166	0.41
		Top side		0.129	0.124	0.25
		Bottom side	0.823			0.82
LTE	LTE Band 71_LAT	Front	0.378	0.063	0.125	0.57
		Back	0.502	0.268	0.284	1.05
		Left side	0.238	0.004	0.013	0.26



		Right side	0.286	0.122	0.166	0.57
		Top side		0.129	0.124	0.25
		Bottom side	0.159			0.16
	LTE Band 12_LAT	Front	0.463	0.063	0.125	0.65
		Back	0.619	0.268	0.284	1.17
		Left side	0.360	0.004	0.013	0.38
		Right side	0.297	0.122	0.166	0.59
		Top side		0.129	0.124	0.25
		Bottom side	0.238			0.24
	LTE Band 13_LAT	Front	0.409	0.063	0.125	0.60
		Back	0.565	0.268	0.284	1.12
		Left side	0.322	0.004	0.013	0.34
		Right side	0.254	0.122	0.166	0.54
		Top side		0.129	0.124	0.25
		Bottom side	0.222			0.22
	LTE Band 5_LAT	Front	0.424	0.063	0.125	0.61
		Back	0.515	0.268	0.284	1.07
		Left side	0.219	0.004	0.013	0.24
		Right side	0.351	0.122	0.166	0.64
		Top side		0.129	0.124	0.25
		Bottom side	0.310			0.31
	LTE Band 26_LAT	Front	0.281	0.063	0.125	0.47
		Back	0.434	0.268	0.284	0.99
		Left side	0.115	0.004	0.013	0.13
		Right side	0.227	0.122	0.166	0.52
		Top side		0.129	0.124	0.25
		Bottom side	0.211			0.21
LTE Band 66_LAT	Front	0.306	0.063	0.125	0.49	
	Back	0.417	0.268	0.284	0.97	
	Left side	0.107	0.004	0.013	0.12	
	Right side	0.091	0.122	0.166	0.38	
	Top side		0.129	0.124	0.25	
	Bottom side	0.546			0.55	
LTE Band 25_LAT	Front	0.371	0.063	0.125	0.56	
	Back	0.465	0.268	0.284	1.02	
	Left side	0.119	0.004	0.013	0.14	
	Right side	0.090	0.122	0.166	0.38	
	Top side		0.129	0.124	0.25	
	Bottom side	0.614			0.61	
LTE Band 30_LAT	Front	0.285	0.063	0.125	0.47	
	Back	0.395	0.268	0.284	0.95	
	Left side	0.046	0.004	0.013	0.06	
	Right side	0.019	0.122	0.166	0.31	
	Top side		0.129	0.124	0.25	
	Bottom side	0.328			0.33	
LTE Band 7_LAT	Front	0.312	0.063	0.125	0.50	
	Back	0.550	0.268	0.284	1.10	
	Left side	0.139	0.004	0.013	0.16	
	Right side	0.158	0.122	0.166	0.45	
	Top side		0.129	0.124	0.25	
	Bottom side	0.525			0.53	
LTE Band 41_LAT	Front	0.307	0.063	0.125	0.50	
	Back	0.566	0.268	0.284	1.12	
	Left side	0.088	0.004	0.013	0.11	
	Right side	0.064	0.122	0.166	0.35	
	Top side		0.129	0.124	0.25	



	LTE Band 41(HPUE)_LAT	Bottom side	0.340			0.34
		Front	0.317	0.063	0.125	0.51
		Back	0.579	0.268	0.284	1.13
		Left side	0.083	0.004	0.013	0.10
		Right side	0.070	0.122	0.166	0.36
		Top side		0.129	0.124	0.25
		Bottom side	0.375			0.38





<5G NR SAR>

WWAN Band	Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1			
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
FR1	N71_Ant0	Front	0.629	0.197	0.317	0.064	0.69	0.38
		Back	0.587	0.891	0.985	0.097	0.68	1.08
		Left side	0.863	0.013	0.044	0.008	0.87	0.05
		Right side	0.065	0.364	0.514	0.025	0.09	0.54
		Top side	0.025	0.374	0.301	0.152	0.18	0.45
		Bottom side					0.00	0.00
	N5_Ant0	Front	0.702	0.197	0.317	0.064	0.77	0.38
		Back	0.498	0.891	0.985	0.097	0.60	1.08
		Left side	0.838	0.013	0.044	0.008	0.85	0.05
		Right side	0.006	0.364	0.514	0.025	0.03	0.54
		Top side	0.034	0.374	0.301	0.152	0.19	0.45
		Bottom side					0.00	0.00
	N66_Ant2	Front	0.266	0.197	0.317	0.064	0.33	0.38
		Back	0.296	0.891	0.985	0.097	0.39	1.08
		Left side	0.084	0.013	0.044	0.008	0.09	0.05
		Right side	0.044	0.364	0.514	0.025	0.07	0.54
		Top side	0.842	0.374	0.301	0.152	0.99	0.45
		Bottom side					0.00	0.00
	N2_Ant2	Front	0.284	0.197	0.317	0.064	0.35	0.38
		Back	0.365	0.891	0.985	0.097	0.46	1.08
		Left side	0.061	0.013	0.044	0.008	0.07	0.05
		Right side	0.050	0.364	0.514	0.025	0.08	0.54
		Top side	0.712	0.374	0.301	0.152	0.86	0.45
		Bottom side					0.00	0.00
	N25_Ant2	Front	0.373	0.197	0.317	0.064	0.44	0.38
		Back	0.459	0.891	0.985	0.097	0.56	1.08
		Left side	0.086	0.013	0.044	0.008	0.09	0.05
		Right side	0.044	0.364	0.514	0.025	0.07	0.54
		Top side	0.821	0.374	0.301	0.152	0.97	0.45
		Bottom side					0.00	0.00
	N41_Ant2	Front	0.171	0.197	0.317	0.064	0.24	0.38
		Back	0.420	0.891	0.985	0.097	0.52	1.08
		Left side	0.063	0.013	0.044	0.008	0.07	0.05
		Right side	0.036	0.364	0.514	0.025	0.06	0.54
		Top side	0.884	0.374	0.301	0.152	1.04	0.45
		Bottom side					0.00	0.00
	N41(HPUE)_Ant2	Front	0.171	0.197	0.317	0.064	0.24	0.38
		Back	0.420	0.891	0.985	0.097	0.52	1.08
		Left side	0.063	0.013	0.044	0.008	0.07	0.05
		Right side	0.036	0.364	0.514	0.025	0.06	0.54
		Top side	0.884	0.374	0.301	0.152	1.04	0.45
		Bottom side					0.00	0.00



WWAN Band	Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1					
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)					
FR1	N71_Ant0	Front	0.629	0.127	0.257	0.064	0.76	0.89	0.38	0.95
		Back	0.587	0.545	0.555	0.097	1.13	1.14	1.10	1.24
		Left side	0.863	0.008	0.029	0.008	0.87	0.89	0.04	0.90
		Right side	0.065	0.226	0.326	0.025	0.29	0.39	0.55	0.42
		Top side	0.025	0.234	0.242	0.152	0.26	0.27	0.48	0.42
		Bottom side					0.00	0.00	0.00	0.00
	N5_Ant0	Front	0.702	0.127	0.257	0.064	0.83	0.96	0.38	1.02
		Back	0.498	0.545	0.555	0.097	1.04	1.05	1.10	1.15
		Left side	0.838	0.008	0.029	0.008	0.85	0.87	0.04	0.88
		Right side	0.006	0.226	0.326	0.025	0.23	0.33	0.55	0.36
		Top side	0.034	0.234	0.242	0.152	0.27	0.28	0.48	0.43
		Bottom side					0.00	0.00	0.00	0.00
	N66_Ant2	Front	0.266	0.127	0.257	0.064	0.39	0.52	0.38	0.59
		Back	0.296	0.545	0.555	0.097	0.84	0.85	1.10	0.95
		Left side	0.084	0.008	0.029	0.008	0.09	0.11	0.04	0.12
		Right side	0.044	0.226	0.326	0.025	0.27	0.37	0.55	0.40
		Top side	0.842	0.234	0.242	0.152	1.08	1.08	0.48	1.24
		Bottom side					0.00	0.00	0.00	0.00
	N2_Ant2	Front	0.284	0.127	0.257	0.064	0.41	0.54	0.38	0.61
		Back	0.365	0.545	0.555	0.097	0.91	0.92	1.10	1.02
		Left side	0.061	0.008	0.029	0.008	0.07	0.09	0.04	0.10
		Right side	0.050	0.226	0.326	0.025	0.28	0.38	0.55	0.40
		Top side	0.712	0.234	0.242	0.152	0.95	0.95	0.48	1.11
		Bottom side					0.00	0.00	0.00	0.00
	N25_Ant2	Front	0.373	0.127	0.257	0.064	0.50	0.63	0.38	0.69
		Back	0.459	0.545	0.555	0.097	1.00	1.01	1.10	1.11
		Left side	0.086	0.008	0.029	0.008	0.09	0.12	0.04	0.12
		Right side	0.044	0.226	0.326	0.025	0.27	0.37	0.55	0.40
		Top side	0.821	0.234	0.242	0.152	1.06	1.06	0.48	1.22
		Bottom side					0.00	0.00	0.00	0.00
N41_Ant2	Front	0.171	0.127	0.257	0.064	0.30	0.43	0.38	0.49	
	Back	0.420	0.545	0.555	0.097	0.97	0.98	1.10	1.07	
	Left side	0.063	0.008	0.029	0.008	0.07	0.09	0.04	0.10	
	Right side	0.036	0.226	0.326	0.025	0.26	0.36	0.55	0.39	
	Top side	0.884	0.234	0.242	0.152	1.12	1.13	0.48	1.28	
	Bottom side					0.00	0.00	0.00	0.00	
N41(HPUE)_Ant2	Front	0.171	0.127	0.257	0.064	0.30	0.43	0.38	0.49	
	Back	0.420	0.545	0.555	0.097	0.97	0.98	1.10	1.07	
	Left side	0.063	0.008	0.029	0.008	0.07	0.09	0.04	0.10	
	Right side	0.036	0.226	0.326	0.025	0.26	0.36	0.55	0.39	
	Top side	0.884	0.234	0.242	0.152	1.12	1.13	0.48	1.28	
	Bottom side					0.00	0.00	0.00	0.00	



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	
FR1	N71_Ant0	Front	0.629	0.063	0.125	0.82
		Back	0.587	0.268	0.284	1.14
		Left side	0.863	0.004	0.013	0.88
		Right side	0.065	0.122	0.166	0.35
		Top side	0.025	0.129	0.124	0.28
		Bottom side				0.00
	N5_Ant0	Front	0.702	0.063	0.125	0.89
		Back	0.498	0.268	0.284	1.05
		Left side	0.838	0.004	0.013	0.86
		Right side	0.006	0.122	0.166	0.29
		Top side	0.034	0.129	0.124	0.29
		Bottom side				0.00
	N66_Ant2	Front	0.266	0.063	0.125	0.45
		Back	0.296	0.268	0.284	0.85
		Left side	0.084	0.004	0.013	0.10
		Right side	0.044	0.122	0.166	0.33
		Top side	0.842	0.129	0.124	1.10
		Bottom side				0.00
	N2_Ant2	Front	0.284	0.063	0.125	0.47
		Back	0.365	0.268	0.284	0.92
		Left side	0.061	0.004	0.013	0.08
		Right side	0.050	0.122	0.166	0.34
		Top side	0.712	0.129	0.124	0.97
		Bottom side				0.00
	N25_Ant2	Front	0.373	0.063	0.125	0.56
		Back	0.459	0.268	0.284	1.01
		Left side	0.086	0.004	0.013	0.10
		Right side	0.044	0.122	0.166	0.33
		Top side	0.821	0.129	0.124	1.07
		Bottom side				0.00
N41_Ant2	Front	0.171	0.063	0.125	0.36	
	Back	0.420	0.268	0.284	0.97	
	Left side	0.063	0.004	0.013	0.08	
	Right side	0.036	0.122	0.166	0.32	
	Top side	0.884	0.129	0.124	1.14	
	Bottom side				0.00	
N41(HPUE)_Ant2	Front	0.171	0.063	0.125	0.36	
	Back	0.420	0.268	0.284	0.97	
	Left side	0.063	0.004	0.013	0.08	
	Right side	0.036	0.122	0.166	0.32	
	Top side	0.884	0.129	0.124	1.14	
	Bottom side				0.00	



WWAN Band	Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1			
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)			
FR1	N71_Ant1	Front	0.270	0.197	0.317	0.064	0.33	0.38
		Back	0.350	0.891	0.985	0.097	0.45	1.08
		Left side	0.172	0.013	0.044	0.008	0.18	0.05
		Right side	0.241	0.364	0.514	0.025	0.27	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.137				0.14	0.00
	N5_Ant1	Front	0.300	0.197	0.317	0.064	0.36	0.38
		Back	0.331	0.891	0.985	0.097	0.43	1.08
		Left side	0.155	0.013	0.044	0.008	0.16	0.05
		Right side	0.240	0.364	0.514	0.025	0.27	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.222				0.22	0.00
	N66_Ant3	Front	0.411	0.197	0.317	0.064	0.48	0.38
		Back	0.582	0.891	0.985	0.097	0.68	1.08
		Left side	0.226	0.013	0.044	0.008	0.23	0.05
		Right side	0.156	0.364	0.514	0.025	0.18	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.809				0.81	0.00
	N2_Ant3	Front	0.539	0.197	0.317	0.064	0.60	0.38
		Back	0.596	0.891	0.985	0.097	0.69	1.08
		Left side	0.192	0.013	0.044	0.008	0.20	0.05
		Right side	0.126	0.364	0.514	0.025	0.15	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	1.041				1.04	0.00
	N25_Ant3	Front	0.580	0.197	0.317	0.064	0.64	0.38
		Back	0.590	0.891	0.985	0.097	0.69	1.08
		Left side	0.228	0.013	0.044	0.008	0.24	0.05
		Right side	0.144	0.364	0.514	0.025	0.17	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.969				0.97	0.00
	N41_Ant3	Front	0.368	0.197	0.317	0.064	0.43	0.38
		Back	0.560	0.891	0.985	0.097	0.66	1.08
		Left side	0.102	0.013	0.044	0.008	0.11	0.05
		Right side	0.170	0.364	0.514	0.025	0.20	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.552				0.55	0.00
	N41(HPUE)_Ant3	Front	0.368	0.197	0.317	0.064	0.43	0.38
		Back	0.560	0.891	0.985	0.097	0.66	1.08
		Left side	0.102	0.013	0.044	0.008	0.11	0.05
		Right side	0.170	0.364	0.514	0.025	0.20	0.54
		Top side		0.374	0.301	0.152	0.15	0.45
		Bottom side	0.552				0.55	0.00



WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
FR1	N71_Ant1	Front	0.270	0.127	0.257	0.064	0.40	0.53	0.38	0.59
		Back	0.350	0.545	0.555	0.097	0.90	0.91	1.10	1.00
		Left side	0.172	0.008	0.029	0.008	0.18	0.20	0.04	0.21
		Right side	0.241	0.226	0.326	0.025	0.47	0.57	0.55	0.59
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.137				0.14	0.14	0.00	0.14
	N5_Ant1	Front	0.300	0.127	0.257	0.064	0.43	0.56	0.38	0.62
		Back	0.331	0.545	0.555	0.097	0.88	0.89	1.10	0.98
		Left side	0.155	0.008	0.029	0.008	0.16	0.18	0.04	0.19
		Right side	0.240	0.226	0.326	0.025	0.47	0.57	0.55	0.59
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.222				0.22	0.22	0.00	0.22
	N66_Ant3	Front	0.411	0.127	0.257	0.064	0.54	0.67	0.38	0.73
		Back	0.582	0.545	0.555	0.097	1.13	1.14	1.10	1.23
		Left side	0.226	0.008	0.029	0.008	0.23	0.26	0.04	0.26
		Right side	0.156	0.226	0.326	0.025	0.38	0.48	0.55	0.51
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.809				0.81	0.81	0.00	0.81
	N2_Ant3	Front	0.539	0.127	0.257	0.064	0.67	0.80	0.38	0.86
		Back	0.596	0.545	0.555	0.097	1.14	1.15	1.10	1.25
		Left side	0.192	0.008	0.029	0.008	0.20	0.22	0.04	0.23
		Right side	0.126	0.226	0.326	0.025	0.35	0.45	0.55	0.48
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	1.041				1.04	1.04	0.00	1.04
	N25_Ant3	Front	0.580	0.127	0.257	0.064	0.71	0.84	0.38	0.90
		Back	0.590	0.545	0.555	0.097	1.14	1.15	1.10	1.24
		Left side	0.228	0.008	0.029	0.008	0.24	0.26	0.04	0.27
		Right side	0.144	0.226	0.326	0.025	0.37	0.47	0.55	0.50
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.969				0.97	0.97	0.00	0.97
	N41_Ant3	Front	0.368	0.127	0.257	0.064	0.50	0.63	0.38	0.69
		Back	0.560	0.545	0.555	0.097	1.11	1.12	1.10	1.21
		Left side	0.102	0.008	0.029	0.008	0.11	0.13	0.04	0.14
		Right side	0.170	0.226	0.326	0.025	0.40	0.50	0.55	0.52
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.552				0.55	0.55	0.00	0.55
	N41(HPUE)_Ant3	Front	0.368	0.127	0.257	0.064	0.50	0.63	0.38	0.69
		Back	0.560	0.545	0.555	0.097	1.11	1.12	1.10	1.21
		Left side	0.102	0.008	0.029	0.008	0.11	0.13	0.04	0.14
		Right side	0.170	0.226	0.326	0.025	0.40	0.50	0.55	0.52
		Top side		0.234	0.242	0.152	0.23	0.24	0.48	0.39
		Bottom side	0.552				0.55	0.55	0.00	0.55



WWAN Band		Exposure Position	1	2	4	6	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)		
FR1	N71_Ant1	Front	0.270	0.063	0.125	0.064	0.46	0.46
		Back	0.350	0.268	0.284	0.097	0.90	0.73
		Left side	0.172	0.004	0.013	0.008	0.19	0.19
		Right side	0.241	0.122	0.166	0.025	0.53	0.43
		Top side		0.129	0.124	0.152	0.25	0.28
		Bottom side	0.137				0.14	0.14
	N5_Ant1	Front	0.300	0.063	0.125	0.064	0.49	0.49
		Back	0.331	0.268	0.284	0.097	0.88	0.71
		Left side	0.155	0.004	0.013	0.008	0.17	0.18
		Right side	0.240	0.122	0.166	0.025	0.53	0.43
		Top side		0.129	0.124	0.152	0.25	0.28
		Bottom side	0.222				0.22	0.22
	N66_Ant3	Front	0.411	0.063	0.125	0.064	0.60	0.60
		Back	0.582	0.268	0.284	0.097	1.13	0.96
		Left side	0.226	0.004	0.013	0.008	0.24	0.25
		Right side	0.156	0.122	0.166	0.025	0.44	0.35
		Top side		0.129	0.124	0.152	0.25	0.28
		Bottom side	0.809				0.81	0.81
	N2_Ant3	Front	0.539	0.063	0.125	0.064	0.73	0.73
		Back	0.596	0.268	0.284	0.097	1.15	0.98
		Left side	0.192	0.004	0.013	0.008	0.21	0.21
		Right side	0.126	0.122	0.166	0.025	0.41	0.32
		Top side		0.129	0.124	0.152	0.25	0.28
		Bottom side	1.041				1.04	1.04
	N25_Ant3	Front	0.580	0.063	0.125	0.064	0.77	0.77
		Back	0.590	0.268	0.284	0.097	1.14	0.97
		Left side	0.228	0.004	0.013	0.008	0.25	0.25
		Right side	0.144	0.122	0.166	0.025	0.43	0.34
		Top side		0.129	0.124	0.152	0.25	0.28
		Bottom side	0.969				0.97	0.97
N41_Ant3	Front	0.368	0.063	0.125	0.064	0.56	0.56	
	Back	0.560	0.268	0.284	0.097	1.11	0.94	
	Left side	0.102	0.004	0.013	0.008	0.12	0.12	
	Right side	0.170	0.122	0.166	0.025	0.46	0.36	
	Top side		0.129	0.124	0.152	0.25	0.28	
	Bottom side	0.552				0.55	0.55	
N41(HPUE)_Ant3	Front	0.368	0.063	0.125	0.064	0.56	0.56	
	Back	0.560	0.268	0.284	0.097	1.11	0.94	
	Left side	0.102	0.004	0.013	0.008	0.12	0.12	
	Right side	0.170	0.122	0.166	0.025	0.46	0.36	
	Top side		0.129	0.124	0.152	0.25	0.28	
	Bottom side	0.552				0.55	0.55	

WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 2_Ant0	Front	0.129	0.197	0.317	0.064	0.19	0.38
		Back	0.379	0.891	0.985	0.097	0.48	1.08
		Left side	0.466	0.013	0.044	0.008	0.47	0.05
		Right side		0.364	0.514	0.025	0.03	0.54
		Top side	0.072	0.374	0.301	0.152	0.22	0.45
		Bottom side					0.00	0.00
	LTE Band 66_Ant0	Front	0.118	0.197	0.317	0.064	0.18	0.38
		Back	0.317	0.891	0.985	0.097	0.41	1.08
		Left side	0.446	0.013	0.044	0.008	0.45	0.05
		Right side		0.364	0.514	0.025	0.03	0.54
		Top side	0.031	0.374	0.301	0.152	0.18	0.45
		Bottom side					0.00	0.00

WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	LTE Band 2_Ant0	Front	0.129	0.127	0.257	0.064	0.26	0.39	0.38	0.45
		Back	0.379	0.545	0.555	0.097	0.92	0.93	1.10	1.03
		Left side	0.466	0.008	0.029	0.008	0.47	0.50	0.04	0.50
		Right side		0.226	0.326	0.025	0.23	0.33	0.55	0.35
		Top side	0.072	0.234	0.242	0.152	0.31	0.31	0.48	0.47
		Bottom side					0.00	0.00	0.00	0.00
	LTE Band 66_Ant0	Front	0.118	0.127	0.257	0.064	0.25	0.38	0.38	0.44
		Back	0.317	0.545	0.555	0.097	0.86	0.87	1.10	0.97
		Left side	0.446	0.008	0.029	0.008	0.45	0.48	0.04	0.48
		Right side		0.226	0.326	0.025	0.23	0.33	0.55	0.35
		Top side	0.031	0.234	0.242	0.152	0.27	0.27	0.48	0.43
		Bottom side					0.00	0.00	0.00	0.00

WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
LTE	LTE Band 2_Ant0	Front	0.129	0.063	0.125	0.32
		Back	0.379	0.268	0.284	0.93
		Left side	0.466	0.004	0.013	0.48
		Right side		0.122	0.166	0.29
		Top side	0.072	0.129	0.124	0.33
		Bottom side				0.00
	LTE Band 66_Ant0	Front	0.118	0.063	0.125	0.31
		Back	0.317	0.268	0.284	0.87
		Left side	0.446	0.004	0.013	0.46
		Right side		0.122	0.166	0.29
		Top side	0.031	0.129	0.124	0.28
		Bottom side				0.00



**20.4 Body-Worn Accessory Exposure Conditions**

WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_UAT	Front	0.393	0.161	0.162	0.032	0.43	0.19
		Back	0.338	0.729	0.743	0.048	0.39	0.79
	GSM1900_UAT	Front	0.132	0.161	0.162	0.032	0.16	0.19
		Back	0.221	0.729	0.743	0.048	0.27	0.79
WCDMA	WCDMA V_UAT	Front	0.432	0.161	0.162	0.032	0.46	0.19
		Back	0.374	0.729	0.743	0.048	0.42	0.79
	WCDMA IV_UAT	Front	0.212	0.161	0.162	0.032	0.24	0.19
		Back	0.243	0.729	0.743	0.048	0.29	0.79
	WCDMA II_UAT	Front	0.278	0.161	0.162	0.032	0.31	0.19
		Back	0.338	0.729	0.743	0.048	0.39	0.79
CDMA	CDMA2000 BC0_UAT	Front	0.344	0.161	0.162	0.032	0.38	0.19
		Back	0.326	0.729	0.743	0.048	0.37	0.79
	CDMA2000 BC10_UAT	Front	0.411	0.161	0.162	0.032	0.44	0.19
		Back	0.397	0.729	0.743	0.048	0.45	0.79
	CDMA2000 BC1_UAT	Front	0.321	0.161	0.162	0.032	0.35	0.19
		Back	0.386	0.729	0.743	0.048	0.43	0.79
LTE	LTE Band 71_UAT	Front	0.386	0.161	0.162	0.032	0.42	0.19
		Back	0.320	0.729	0.743	0.048	0.37	0.79
	LTE Band 12_UAT	Front	0.520	0.161	0.162	0.032	0.55	0.19
		Back	0.490	0.729	0.743	0.048	0.54	0.79
	LTE Band 13_UAT	Front	0.468	0.161	0.162	0.032	0.50	0.19
		Back	0.425	0.729	0.743	0.048	0.47	0.79
	LTE Band 5_UAT	Front	0.446	0.161	0.162	0.032	0.48	0.19
		Back	0.402	0.729	0.743	0.048	0.45	0.79
	LTE Band 26_UAT	Front	0.496	0.161	0.162	0.032	0.53	0.19
		Back	0.372	0.729	0.743	0.048	0.42	0.79
	LTE Band 66_UAT	Front	0.164	0.161	0.162	0.032	0.20	0.19
		Back	0.228	0.729	0.743	0.048	0.28	0.79
	LTE Band 25_UAT	Front	0.299	0.161	0.162	0.032	0.33	0.19
		Back	0.366	0.729	0.743	0.048	0.41	0.79
	LTE Band 30_UAT	Front	0.231	0.161	0.162	0.032	0.26	0.19
		Back	0.259	0.729	0.743	0.048	0.31	0.79
	LTE Band 7_UAT	Front	0.213	0.161	0.162	0.032	0.25	0.19
		Back	0.407	0.729	0.743	0.048	0.46	0.79
	LTE Band 41_UAT	Front	0.233	0.161	0.162	0.032	0.27	0.19
		Back	0.353	0.729	0.743	0.048	0.40	0.79
	LTE Band 41(HPUE)_UAT	Front	0.231	0.161	0.162	0.032	0.26	0.19
		Back	0.371	0.729	0.743	0.048	0.42	0.79
	LTE Band 48_UAT	Front	0.295	0.161	0.162	0.032	0.33	0.19
		Back	0.831	0.729	0.743	0.048	0.88	0.79





WWAN Band		Exposure Position	1	2	4	1+2 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_UAT	Front	0.393	0.065	0.134	0.46	0.20
		Back	0.338	0.289	0.498	0.63	0.79
	GSM1900_UAT	Front	0.132	0.065	0.134	0.20	0.20
		Back	0.221	0.289	0.498	0.51	0.79
WCDMA	WCDMA V_UAT	Front	0.432	0.065	0.134	0.50	0.20
		Back	0.374	0.289	0.498	0.66	0.79
	WCDMA IV_UAT	Front	0.212	0.065	0.134	0.28	0.20
		Back	0.243	0.289	0.498	0.53	0.79
	WCDMA II_UAT	Front	0.278	0.065	0.134	0.34	0.20
		Back	0.338	0.289	0.498	0.63	0.79
CDMA	CDMA2000 BC0_UAT	Front	0.344	0.065	0.134	0.41	0.20
		Back	0.326	0.289	0.498	0.62	0.79
	CDMA2000 BC10_UAT	Front	0.411	0.065	0.134	0.48	0.20
		Back	0.397	0.289	0.498	0.69	0.79
	CDMA2000 BC1_UAT	Front	0.321	0.065	0.134	0.39	0.20
		Back	0.386	0.289	0.498	0.68	0.79
LTE	LTE Band 71_UAT	Front	0.386	0.065	0.134	0.45	0.20
		Back	0.320	0.289	0.498	0.61	0.79
	LTE Band 12_UAT	Front	0.520	0.065	0.134	0.59	0.20
		Back	0.490	0.289	0.498	0.78	0.79
	LTE Band 13_UAT	Front	0.468	0.065	0.134	0.53	0.20
		Back	0.425	0.289	0.498	0.71	0.79
	LTE Band 5_UAT	Front	0.446	0.065	0.134	0.51	0.20
		Back	0.402	0.289	0.498	0.69	0.79
	LTE Band 26_UAT	Front	0.496	0.065	0.134	0.56	0.20
		Back	0.372	0.289	0.498	0.66	0.79
	LTE Band 66_UAT	Front	0.164	0.065	0.134	0.23	0.20
		Back	0.228	0.289	0.498	0.52	0.79
	LTE Band 25_UAT	Front	0.299	0.065	0.134	0.36	0.20
		Back	0.366	0.289	0.498	0.66	0.79
	LTE Band 30_UAT	Front	0.231	0.065	0.134	0.30	0.20
		Back	0.259	0.289	0.498	0.55	0.79
	LTE Band 7_UAT	Front	0.213	0.065	0.134	0.28	0.20
		Back	0.407	0.289	0.498	0.70	0.79
	LTE Band 41_UAT	Front	0.233	0.065	0.134	0.30	0.20
		Back	0.353	0.289	0.498	0.64	0.79
	LTE Band 41(HPUE)_UAT	Front	0.231	0.065	0.134	0.30	0.20
		Back	0.371	0.289	0.498	0.66	0.79
	LTE Band 48_UAT	Front	0.295	0.065	0.134	0.36	0.20
		Back	0.831	0.289	0.498	1.12	0.79



WWAN Band		Exposure Position	1	4	6	1+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_UAT	Front	0.393	0.070	0.032	0.46	0.50
		Back	0.338	0.239	0.048	0.58	0.63
	GSM1900_UAT	Front	0.132	0.070	0.032	0.20	0.23
		Back	0.221	0.239	0.048	0.46	0.51
WCDMA	WCDMA V_UAT	Front	0.432	0.070	0.032	0.50	0.53
		Back	0.374	0.239	0.048	0.61	0.66
	WCDMA IV_UAT	Front	0.212	0.070	0.032	0.28	0.31
		Back	0.243	0.239	0.048	0.48	0.53
	WCDMA II_UAT	Front	0.278	0.070	0.032	0.35	0.38
		Back	0.338	0.239	0.048	0.58	0.63
CDMA	CDMA2000 BC0_UAT	Front	0.344	0.070	0.032	0.41	0.45
		Back	0.326	0.239	0.048	0.57	0.61
	CDMA2000 BC10_UAT	Front	0.411	0.070	0.032	0.48	0.51
		Back	0.397	0.239	0.048	0.64	0.68
	CDMA2000 BC1_UAT	Front	0.321	0.070	0.032	0.39	0.42
		Back	0.386	0.239	0.048	0.63	0.67
LTE	LTE Band 71_UAT	Front	0.386	0.070	0.032	0.46	0.49
		Back	0.320	0.239	0.048	0.56	0.61
	LTE Band 12_UAT	Front	0.520	0.070	0.032	0.59	0.62
		Back	0.490	0.239	0.048	0.73	0.78
	LTE Band 13_UAT	Front	0.468	0.070	0.032	0.54	0.57
		Back	0.425	0.239	0.048	0.66	0.71
	LTE Band 5_UAT	Front	0.446	0.070	0.032	0.52	0.55
		Back	0.402	0.239	0.048	0.64	0.69
	LTE Band 26_UAT	Front	0.496	0.070	0.032	0.57	0.60
		Back	0.372	0.239	0.048	0.61	0.66
	LTE Band 66_UAT	Front	0.164	0.070	0.032	0.23	0.27
		Back	0.228	0.239	0.048	0.47	0.52
	LTE Band 25_UAT	Front	0.299	0.070	0.032	0.37	0.40
		Back	0.366	0.239	0.048	0.61	0.65
	LTE Band 30_UAT	Front	0.231	0.070	0.032	0.30	0.33
		Back	0.259	0.239	0.048	0.50	0.55
	LTE Band 7_UAT	Front	0.213	0.070	0.032	0.28	0.32
		Back	0.407	0.239	0.048	0.65	0.69
	LTE Band 41_UAT	Front	0.233	0.070	0.032	0.30	0.34
		Back	0.353	0.239	0.048	0.59	0.64
	LTE Band 41(HPUE)_UAT	Front	0.231	0.070	0.032	0.30	0.33
		Back	0.371	0.239	0.048	0.61	0.66
	LTE Band 48_UAT	Front	0.295	0.070	0.032	0.37	0.40
		Back	0.831	0.239	0.048	1.07	1.12



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
GSM	GSM850_UAT	Front	0.393	0.035	0.070	0.50
		Back	0.338	0.141	0.239	0.72
	GSM1900_UAT	Front	0.132	0.035	0.070	0.24
		Back	0.221	0.141	0.239	0.60
WCDMA	WCDMA V_UAT	Front	0.432	0.035	0.070	0.54
		Back	0.374	0.141	0.239	0.75
	WCDMA IV_UAT	Front	0.212	0.035	0.070	0.32
		Back	0.243	0.141	0.239	0.62
	WCDMA II_UAT	Front	0.278	0.035	0.070	0.38
		Back	0.338	0.141	0.239	0.72
CDMA	CDMA2000 BC0_UAT	Front	0.344	0.035	0.070	0.45
		Back	0.326	0.141	0.239	0.71
	CDMA2000 BC10_UAT	Front	0.411	0.035	0.070	0.52
		Back	0.397	0.141	0.239	0.78
	CDMA2000 BC1_UAT	Front	0.321	0.035	0.070	0.43
		Back	0.386	0.141	0.239	0.77
LTE	LTE Band 71_UAT	Front	0.386	0.035	0.070	0.49
		Back	0.320	0.141	0.239	0.70
	LTE Band 12_UAT	Front	0.520	0.035	0.070	0.63
		Back	0.490	0.141	0.239	0.87
	LTE Band 13_UAT	Front	0.468	0.035	0.070	0.57
		Back	0.425	0.141	0.239	0.81
	LTE Band 5_UAT	Front	0.446	0.035	0.070	0.55
		Back	0.402	0.141	0.239	0.78
	LTE Band 26_UAT	Front	0.496	0.035	0.070	0.60
		Back	0.372	0.141	0.239	0.75
	LTE Band 66_UAT	Front	0.164	0.035	0.070	0.27
		Back	0.228	0.141	0.239	0.61
	LTE Band 25_UAT	Front	0.299	0.035	0.070	0.40
		Back	0.366	0.141	0.239	0.75
	LTE Band 30_UAT	Front	0.231	0.035	0.070	0.34
		Back	0.259	0.141	0.239	0.64
	LTE Band 7_UAT	Front	0.213	0.035	0.070	0.32
		Back	0.407	0.141	0.239	0.79
	LTE Band 41_UAT	Front	0.233	0.035	0.070	0.34
		Back	0.353	0.141	0.239	0.73
	LTE Band 41(HPUE)_UAT	Front	0.231	0.035	0.070	0.34
		Back	0.371	0.141	0.239	0.75
	LTE Band 48_UAT	Front	0.295	0.035	0.070	0.40
		Back	0.831	0.141	0.239	1.21



WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
GSM	GSM850_LAT	Front	0.297	0.161	0.162	0.032	0.33	0.19
		Back	0.437	0.729	0.743	0.048	0.49	0.79
	GSM1900_LAT	Front	0.368	0.161	0.162	0.032	0.40	0.19
		Back	0.381	0.729	0.743	0.048	0.43	0.79
WCDMA	WCDMA V_LAT	Front	0.326	0.161	0.162	0.032	0.36	0.19
		Back	0.428	0.729	0.743	0.048	0.48	0.79
	WCDMA IV_LAT	Front	0.503	0.161	0.162	0.032	0.54	0.19
		Back	0.704	0.729	0.743	0.048	0.75	0.79
	WCDMA II_LAT	Front	0.446	0.161	0.162	0.032	0.48	0.19
		Back	0.692	0.729	0.743	0.048	0.74	0.79
CDMA	CDMA2000 BC0_LAT	Front	0.271	0.161	0.162	0.032	0.30	0.19
		Back	0.394	0.729	0.743	0.048	0.44	0.79
	CDMA2000 BC10_LAT	Front	0.218	0.161	0.162	0.032	0.25	0.19
		Back	0.380	0.729	0.743	0.048	0.43	0.79
	CDMA2000 BC1_LAT	Front	0.571	0.161	0.162	0.032	0.60	0.19
		Back	0.632	0.729	0.743	0.048	0.68	0.79
LTE	LTE Band 71_LAT	Front	0.258	0.161	0.162	0.032	0.29	0.19
		Back	0.385	0.729	0.743	0.048	0.43	0.79
	LTE Band 12_LAT	Front	0.357	0.161	0.162	0.032	0.39	0.19
		Back	0.492	0.729	0.743	0.048	0.54	0.79
	LTE Band 13_LAT	Front	0.309	0.161	0.162	0.032	0.34	0.19
		Back	0.396	0.729	0.743	0.048	0.44	0.79
	LTE Band 5_LAT	Front	0.314	0.161	0.162	0.032	0.35	0.19
		Back	0.410	0.729	0.743	0.048	0.46	0.79
	LTE Band 26_LAT	Front	0.328	0.161	0.162	0.032	0.36	0.19
		Back	0.483	0.729	0.743	0.048	0.53	0.79
	LTE Band 66_LAT	Front	0.544	0.161	0.162	0.032	0.58	0.19
		Back	0.636	0.729	0.743	0.048	0.68	0.79
	LTE Band 25_LAT	Front	0.553	0.161	0.162	0.032	0.59	0.19
		Back	0.632	0.729	0.743	0.048	0.68	0.79
	LTE Band 30_LAT	Front	0.602	0.161	0.162	0.032	0.63	0.19
		Back	0.731	0.729	0.743	0.048	0.78	0.79
	LTE Band 7_LAT	Front	0.493	0.161	0.162	0.032	0.53	0.19
		Back	0.648	0.729	0.743	0.048	0.70	0.79
	LTE Band 41_LAT	Front	0.290	0.161	0.162	0.032	0.32	0.19
		Back	0.509	0.729	0.743	0.048	0.56	0.79
LTE Band 41(HPUE)_LAT	Front	0.351	0.161	0.162	0.032	0.38	0.19	
	Back	0.523	0.729	0.743	0.048	0.57	0.79	



WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
GSM	GSM850_LAT	Front	0.297	0.065	0.134	0.032	0.36	0.43	0.20	0.46
		Back	0.437	0.289	0.498	0.048	0.73	0.94	0.79	0.98
	GSM1900_LAT	Front	0.368	0.065	0.134	0.032	0.43	0.50	0.20	0.53
		Back	0.381	0.289	0.498	0.048	0.67	0.88	0.79	0.93
WCDMA	WCDMA V_LAT	Front	0.326	0.065	0.134	0.032	0.39	0.46	0.20	0.49
		Back	0.428	0.289	0.498	0.048	0.72	0.93	0.79	0.97
	WCDMA IV_LAT	Front	0.503	0.065	0.134	0.032	0.57	0.64	0.20	0.67
		Back	0.704	0.289	0.498	0.048	0.99	1.20	0.79	1.25
	WCDMA II_LAT	Front	0.446	0.065	0.134	0.032	0.51	0.58	0.20	0.61
		Back	0.692	0.289	0.498	0.048	0.98	1.19	0.79	1.24
CDMA	CDMA2000 BC0_LAT	Front	0.271	0.065	0.134	0.032	0.34	0.41	0.20	0.44
		Back	0.394	0.289	0.498	0.048	0.68	0.89	0.79	0.94
	CDMA2000 BC10_LAT	Front	0.218	0.065	0.134	0.032	0.28	0.35	0.20	0.38
		Back	0.380	0.289	0.498	0.048	0.67	0.88	0.79	0.93
	CDMA2000 BC1_LAT	Front	0.571	0.065	0.134	0.032	0.64	0.71	0.20	0.74
		Back	0.632	0.289	0.498	0.048	0.92	1.13	0.79	1.18
LTE	LTE Band 71_LAT	Front	0.258	0.065	0.134	0.032	0.32	0.39	0.20	0.42
		Back	0.385	0.289	0.498	0.048	0.67	0.88	0.79	0.93
	LTE Band 12_LAT	Front	0.357	0.065	0.134	0.032	0.42	0.49	0.20	0.52
		Back	0.492	0.289	0.498	0.048	0.78	0.99	0.79	1.04
	LTE Band 13_LAT	Front	0.309	0.065	0.134	0.032	0.37	0.44	0.20	0.48
		Back	0.396	0.289	0.498	0.048	0.69	0.89	0.79	0.94
	LTE Band 5_LAT	Front	0.314	0.065	0.134	0.032	0.38	0.45	0.20	0.48
		Back	0.410	0.289	0.498	0.048	0.70	0.91	0.79	0.96
	LTE Band 26_LAT	Front	0.328	0.065	0.134	0.032	0.39	0.46	0.20	0.49
		Back	0.483	0.289	0.498	0.048	0.77	0.98	0.79	1.03
	LTE Band 66_LAT	Front	0.544	0.065	0.134	0.032	0.61	0.68	0.20	0.71
		Back	0.636	0.289	0.498	0.048	0.93	1.13	0.79	1.18
	LTE Band 25_LAT	Front	0.553	0.065	0.134	0.032	0.62	0.69	0.20	0.72
		Back	0.632	0.289	0.498	0.048	0.92	1.13	0.79	1.18
	LTE Band 30_LAT	Front	0.602	0.065	0.134	0.032	0.67	0.74	0.20	0.77
		Back	0.731	0.289	0.498	0.048	1.02	1.23	0.79	1.28
	LTE Band 7_LAT	Front	0.493	0.065	0.134	0.032	0.56	0.63	0.20	0.66
		Back	0.648	0.289	0.498	0.048	0.94	1.15	0.79	1.19
	LTE Band 41_LAT	Front	0.290	0.065	0.134	0.032	0.36	0.42	0.20	0.46
		Back	0.509	0.289	0.498	0.048	0.80	1.01	0.79	1.06
LTE Band 41(HPUE)_LAT	Front	0.351	0.065	0.134	0.032	0.42	0.49	0.20	0.52	
	Back	0.523	0.289	0.498	0.048	0.81	1.02	0.79	1.07	



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
GSM	GSM850_LAT	Front	0.297	0.035	0.070	0.40
		Back	0.437	0.141	0.239	0.82
	GSM1900_LAT	Front	0.368	0.035	0.070	0.47
		Back	0.381	0.141	0.239	0.76
WCDMA	WCDMA V_LAT	Front	0.326	0.035	0.070	0.43
		Back	0.428	0.141	0.239	0.81
	WCDMA IV_LAT	Front	0.503	0.035	0.070	0.61
		Back	0.704	0.141	0.239	1.08
	WCDMA II_LAT	Front	0.446	0.035	0.070	0.55
		Back	0.692	0.141	0.239	1.07
CDMA	CDMA2000 BC0_LAT	Front	0.271	0.035	0.070	0.38
		Back	0.394	0.141	0.239	0.77
	CDMA2000 BC10_LAT	Front	0.218	0.035	0.070	0.32
		Back	0.380	0.141	0.239	0.76
	CDMA2000 BC1_LAT	Front	0.571	0.035	0.070	0.68
		Back	0.632	0.141	0.239	1.01
LTE	LTE Band 71_LAT	Front	0.258	0.035	0.070	0.36
		Back	0.385	0.141	0.239	0.77
	LTE Band 12_LAT	Front	0.357	0.035	0.070	0.46
		Back	0.492	0.141	0.239	0.87
	LTE Band 13_LAT	Front	0.309	0.035	0.070	0.41
		Back	0.396	0.141	0.239	0.78
	LTE Band 5_LAT	Front	0.314	0.035	0.070	0.42
		Back	0.410	0.141	0.239	0.79
	LTE Band 26_LAT	Front	0.328	0.035	0.070	0.43
		Back	0.483	0.141	0.239	0.86
	LTE Band 66_LAT	Front	0.544	0.035	0.070	0.65
		Back	0.636	0.141	0.239	1.02
	LTE Band 25_LAT	Front	0.553	0.035	0.070	0.66
		Back	0.632	0.141	0.239	1.01
	LTE Band 30_LAT	Front	0.602	0.035	0.070	0.71
		Back	0.731	0.141	0.239	1.11
	LTE Band 7_LAT	Front	0.493	0.035	0.070	0.60
		Back	0.648	0.141	0.239	1.03
	LTE Band 41_LAT	Front	0.290	0.035	0.070	0.40
		Back	0.509	0.141	0.239	0.89
LTE Band 41(HPUE)_LAT	Front	0.351	0.035	0.070	0.46	
	Back	0.523	0.141	0.239	0.90	



<5G NR SAR>

WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
FR1	N71_Ant0	Front	0.309	0.161	0.162	0.032	0.34	0.19
		Back	0.281	0.729	0.743	0.048	0.33	0.79
	N5_Ant0	Front	0.333	0.161	0.162	0.032	0.37	0.19
		Back	0.279	0.729	0.743	0.048	0.33	0.79
	N66_Ant2	Front	0.225	0.161	0.162	0.032	0.26	0.19
		Back	0.436	0.729	0.743	0.048	0.48	0.79
	N2_Ant2	Front	0.419	0.161	0.162	0.032	0.45	0.19
		Back	0.493	0.729	0.743	0.048	0.54	0.79
	N25_Ant2	Front	0.353	0.161	0.162	0.032	0.39	0.19
		Back	0.490	0.729	0.743	0.048	0.54	0.79
	N41_Ant2	Front	0.094	0.161	0.162	0.032	0.13	0.19
		Back	0.181	0.729	0.743	0.048	0.23	0.79
	N41(HPUE)_Ant2	Front	0.121	0.161	0.162	0.032	0.15	0.19
		Back	0.236	0.729	0.743	0.048	0.28	0.79

WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
FR1	N71_Ant0	Front	0.309	0.065	0.134	0.032	0.37	0.44	0.20	0.48
		Back	0.281	0.289	0.498	0.048	0.57	0.78	0.79	0.83
	N5_Ant0	Front	0.333	0.065	0.134	0.032	0.40	0.47	0.20	0.50
		Back	0.279	0.289	0.498	0.048	0.57	0.78	0.79	0.83
	N66_Ant2	Front	0.225	0.065	0.134	0.032	0.29	0.36	0.20	0.39
		Back	0.436	0.289	0.498	0.048	0.73	0.93	0.79	0.98
	N2_Ant2	Front	0.419	0.065	0.134	0.032	0.48	0.55	0.20	0.59
		Back	0.493	0.289	0.498	0.048	0.78	0.99	0.79	1.04
	N25_Ant2	Front	0.353	0.065	0.134	0.032	0.42	0.49	0.20	0.52
		Back	0.490	0.289	0.498	0.048	0.78	0.99	0.79	1.04
	N41_Ant2	Front	0.094	0.065	0.134	0.032	0.16	0.23	0.20	0.26
		Back	0.181	0.289	0.498	0.048	0.47	0.68	0.79	0.73
	N41(HPUE)_Ant2	Front	0.121	0.065	0.134	0.032	0.19	0.26	0.20	0.29
		Back	0.236	0.289	0.498	0.048	0.53	0.73	0.79	0.78



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	
FR1	N71_Ant0	Front	0.309	0.035	0.070	0.41
		Back	0.281	0.141	0.239	0.66
	N5_Ant0	Front	0.333	0.035	0.070	0.44
		Back	0.279	0.141	0.239	0.66
	N66_Ant2	Front	0.225	0.035	0.070	0.33
		Back	0.436	0.141	0.239	0.82
	N2_Ant2	Front	0.419	0.035	0.070	0.52
		Back	0.493	0.141	0.239	0.87
	N25_Ant2	Front	0.353	0.035	0.070	0.46
		Back	0.490	0.141	0.239	0.87
	N41_Ant2	Front	0.094	0.035	0.070	0.20
		Back	0.181	0.141	0.239	0.56
	N41(HPUE)_Ant2	Front	0.121	0.035	0.070	0.23
		Back	0.236	0.141	0.239	0.62

WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN 1g SAR (W/kg)	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)		
FR1	N71_Ant1	Front	0.200	0.161	0.162	0.032	0.23	0.19
		Back	0.276	0.729	0.743	0.048	0.32	0.79
	N5_Ant1	Front	0.206	0.161	0.162	0.032	0.24	0.19
		Back	0.321	0.729	0.743	0.048	0.37	0.79
	N66_Ant3	Front	0.375	0.161	0.162	0.032	0.41	0.19
		Back	0.481	0.729	0.743	0.048	0.53	0.79
	N2_Ant3	Front	0.534	0.161	0.162	0.032	0.57	0.19
		Back	0.629	0.729	0.743	0.048	0.68	0.79
	N25_Ant3	Front	0.560	0.161	0.162	0.032	0.59	0.19
		Back	0.689	0.729	0.743	0.048	0.74	0.79
	N41_Ant3	Front	0.152	0.161	0.162	0.032	0.18	0.19
		Back	0.226	0.729	0.743	0.048	0.27	0.79
	N41(HPUE)_Ant3	Front	0.214	0.161	0.162	0.032	0.25	0.19
		Back	0.349	0.729	0.743	0.048	0.40	0.79



WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
FR1	N71_Ant1	Front	0.200	0.065	0.134	0.032	0.27	0.33	0.20	0.37
		Back	0.276	0.289	0.498	0.048	0.57	0.77	0.79	0.82
	N5_Ant1	Front	0.206	0.065	0.134	0.032	0.27	0.34	0.20	0.37
		Back	0.321	0.289	0.498	0.048	0.61	0.82	0.79	0.87
	N66_Ant3	Front	0.375	0.065	0.134	0.032	0.44	0.51	0.20	0.54
		Back	0.481	0.289	0.498	0.048	0.77	0.98	0.79	1.03
	N2_Ant3	Front	0.534	0.065	0.134	0.032	0.60	0.67	0.20	0.70
		Back	0.629	0.289	0.498	0.048	0.92	1.13	0.79	1.18
	N25_Ant3	Front	0.560	0.065	0.134	0.032	0.63	0.69	0.20	0.73
		Back	0.689	0.289	0.498	0.048	0.98	1.19	0.79	1.24
	N41_Ant3	Front	0.152	0.065	0.134	0.032	0.22	0.29	0.20	0.32
		Back	0.226	0.289	0.498	0.048	0.52	0.72	0.79	0.77
	N41(HPUE)_Ant3	Front	0.214	0.065	0.134	0.032	0.28	0.35	0.20	0.38
		Back	0.349	0.289	0.498	0.048	0.64	0.85	0.79	0.90

WWAN Band		Exposure Position	1	2	4	6	1+2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
FR1	N71_Ant1	Front	0.200	0.035	0.070	0.032	0.31	0.30
		Back	0.276	0.141	0.239	0.048	0.66	0.56
	N5_Ant1	Front	0.206	0.035	0.070	0.032	0.31	0.31
		Back	0.321	0.141	0.239	0.048	0.70	0.61
	N66_Ant3	Front	0.375	0.035	0.070	0.032	0.48	0.48
		Back	0.481	0.141	0.239	0.048	0.86	0.77
	N2_Ant3	Front	0.534	0.035	0.070	0.032	0.64	0.64
		Back	0.629	0.141	0.239	0.048	1.01	0.92
	N25_Ant3	Front	0.560	0.035	0.070	0.032	0.67	0.66
		Back	0.689	0.141	0.239	0.048	1.07	0.98
	N41_Ant3	Front	0.152	0.035	0.070	0.032	0.26	0.25
		Back	0.226	0.141	0.239	0.048	0.61	0.51
	N41(HPUE)_Ant3	Front	0.214	0.035	0.070	0.032	0.32	0.32
		Back	0.349	0.141	0.239	0.048	0.73	0.64



WWAN Band		Exposure Position	1	2	4	6	1+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1		
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)		
LTE	LTE Band 2_Ant0	Front	0.102	0.161	0.162	0.032	0.13	0.19
		Back	0.377	0.729	0.743	0.048	0.43	0.79
	LTE Band 66_Ant0	Front	0.118	0.161	0.162	0.032	0.15	0.19
		Back	0.388	0.729	0.743	0.048	0.44	0.79

WWAN Band		Exposure Position	1	2	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	2+4 Summed 1g SAR (W/kg)	1+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	Bluetooth Ant 1				
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)				
LTE	LTE Band 2_Ant0	Front	0.102	0.065	0.134	0.032	0.17	0.24	0.20	0.27
		Back	0.377	0.289	0.498	0.048	0.67	0.88	0.79	0.92
	LTE Band 66_Ant0	Front	0.118	0.065	0.134	0.032	0.18	0.25	0.20	0.28
		Back	0.388	0.289	0.498	0.048	0.68	0.89	0.79	0.93

WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
LTE	LTE Band 2_Ant0	Front	0.102	0.035	0.070	0.21
		Back	0.377	0.141	0.239	0.76
	LTE Band 66_Ant0	Front	0.118	0.035	0.070	0.22
		Back	0.388	0.141	0.239	0.77



**20.5 Product Specific Exposure Conditions**

WWAN Band		Exposure Position	1	2	4	1+2 Summed 10g SAR (W/kg)	1+4 Summed 10g SAR (W/kg)	2+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)			
CDMA	CDMA2000 BC0_UAT	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side	0.947		0.015	0.95	0.96	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side				0.00	0.00	0.00
	CDMA2000 BC10_UAT	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side	1.036		0.015	1.04	1.05	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side				0.00	0.00	0.00
LTE	LTE Band 12_UAT	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side	1.172		0.015	1.17	1.19	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side				0.00	0.00	0.00

WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
CDMA	CDMA2000 BC0_UAT	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side	0.947		0.008	0.96
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side				0.00
	CDMA2000 BC10_UAT	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side	1.036		0.008	1.04
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side				0.00
LTE	LTE Band 12_UAT	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side	1.172		0.008	1.18
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side				0.00



WWAN Band	Exposure Position	1	2	4	1+2 Summed 10g SAR (W/kg)	1+4 Summed 10g SAR (W/kg)	2+4 Summed 10g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2				
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)				
WCDMA	WCDMA IV_LAT	Front		0.742	0.00	0.74	0.74	
		Back	2.168	0.901	0.908	3.07	3.08	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	1.507			1.51	1.51	0.00
	WCDMA II_LAT	Front			0.742	0.00	0.74	0.74
		Back	2.323	0.901	0.908	3.22	3.23	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	2.124			2.12	2.12	0.00
CDMA	CDMA2000 BC1_LAT	Front			0.742	0.00	0.74	
		Back	2.365	0.901	0.908	3.27	3.27	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	2.521			2.52	2.52	0.00
LTE	LTE Band 66_LAT	Front			0.742	0.00	0.74	
		Back	2.378	0.901	0.908	3.28	3.29	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	1.538			1.54	1.54	0.00
	LTE Band 25_LAT	Front			0.742	0.00	0.74	0.74
		Back	1.959	0.901	0.908	2.86	2.87	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	1.875			1.88	1.88	0.00
	LTE Band 30_LAT	Front			0.742	0.00	0.74	0.74
		Back	1.896	0.901	0.908	2.80	2.80	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side				0.00	0.00	0.00
	LTE Band 7_LAT	Front			0.742	0.00	0.74	0.74
		Back	2.314	0.901	0.908	3.22	3.22	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side				0.00	0.00	0.00



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
WCDMA	WCDMA IV_LAT	Front			0.376	0.38
		Back	2.168	0.446	0.447	3.06
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	1.507			1.51
	WCDMA II_LAT	Front			0.376	0.38
		Back	2.323	0.446	0.447	3.22
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	2.124			2.12
CDMA	CDMA2000 BC1_LAT	Front			0.376	0.38
		Back	2.365	0.446	0.447	3.26
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	2.521			2.52
LTE	LTE Band 66_LAT	Front			0.376	0.38
		Back	2.378	0.446	0.447	3.27
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	1.538			1.54
	LTE Band 25_LAT	Front			0.376	0.38
		Back	1.959	0.446	0.447	2.85
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	1.875			1.88
	LTE Band 30_LAT	Front			0.376	0.38
		Back	1.896	0.446	0.447	2.79
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side				0.00
	LTE Band 7_LAT	Front			0.376	0.38
		Back	2.314	0.446	0.447	3.21
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side				0.00



**<5G NR SAR>**

WWAN Band	Exposure Position	1	2	4	1+2 Summed 10g SAR (W/kg)	1+4 Summed 10g SAR (W/kg)	2+4 Summed 10g SAR (W/kg)	
		WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2				
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)				
FR1	N66_Ant2	Front		0.742	0.00	0.74	0.74	
		Back		0.901	0.908	0.90	0.91	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side	2.647		0.510	2.65	3.16	0.51
		Bottom side				0.00	0.00	0.00
	N2_Ant2	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side	2.620		0.510	2.62	3.13	0.51
		Bottom side				0.00	0.00	0.00
	N25_Ant2	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side	2.781		0.510	2.78	3.29	0.51
		Bottom side				0.00	0.00	0.00
	N41_Ant2	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side	2.504		0.510	2.50	3.01	0.51
		Bottom side				0.00	0.00	0.00
N41(HPUE)_Ant2	Front			0.742	0.00	0.74	0.74	
	Back		0.901	0.908	0.90	0.91	1.81	
	Left side			0.015	0.00	0.02	0.02	
	Right side			0.387	0.00	0.39	0.39	
	Top side	2.444		0.510	2.44	2.95	0.51	
	Bottom side				0.00	0.00	0.00	



WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	2.4GHz WLAN Ant 1+2 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
FR1	N66_Ant2	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side	2.647		0.258	2.91
		Bottom side				0.00
	N2_Ant2	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side	2.620		0.258	2.88
		Bottom side				0.00
	N25_Ant2	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side	2.781		0.258	3.04
		Bottom side				0.00
	N41_Ant2	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side	2.504		0.258	2.76
		Bottom side				0.00
N41(HPUE)_Ant2	Front			0.376	0.38	
	Back		0.446	0.447	0.89	
	Left side			0.008	0.01	
	Right side			0.198	0.20	
	Top side	2.444		0.258	2.70	
	Bottom side				0.00	



WWAN Band		Exposure Position	1	2	4	1+2 Summed 10g SAR (W/kg)	1+4 Summed 10g SAR (W/kg)	2+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2			
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)			
FR1	N66_Ant3	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	1.702			1.70	1.70	0.00
	N2_Ant3	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	2.627			2.63	2.63	0.00
	N25_Ant3	Front			0.742	0.00	0.74	0.74
		Back		0.901	0.908	0.90	0.91	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	2.492			2.49	2.49	0.00
	N41(HPUE)_Ant3	Front			0.742	0.00	0.74	0.74
		Back	2.342	0.901	0.908	3.24	3.25	1.81
		Left side			0.015	0.00	0.02	0.02
		Right side			0.387	0.00	0.39	0.39
		Top side			0.510	0.00	0.51	0.51
		Bottom side	1.495			1.50	1.50	0.00





WWAN Band		Exposure Position	1	2	4	1+2+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	5GHz WLAN Ant 1+2	
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	
FR1	N66_Ant3	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	1.702			1.70
	N2_Ant3	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	2.627			2.63
	N25_Ant3	Front			0.376	0.38
		Back		0.446	0.447	0.89
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	2.492			2.49
	N41(HPUE)_Ant3	Front			0.376	0.38
		Back	2.342	0.446	0.447	3.24
		Left side			0.008	0.01
		Right side			0.198	0.20
		Top side			0.258	0.26
		Bottom side	1.495			1.50

WWAN Band		Exposure Position	1	2	4	1+2 Summed 10g SAR (W/kg)	1+4 Summed 10g SAR (W/kg)	2+4 Summed 10g SAR (W/kg)	1+2+4 Summed 10g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1	5GHz WLAN Ant 1				
			10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)				
WCDMA	WCDMA IV_LAT	Back at 7mm	1.203	0.895	0.590	2.10	1.79	1.49	2.69
		Bottom side at 8mm	0.988			0.99	0.99	0.00	0.99
	WCDMA II_LAT	Back at 7mm	0.992	0.895	0.590	1.89	1.58	1.49	2.48
		Bottom side at 8mm	1.251			1.25	1.25	0.00	1.25
CDMA	CDMA2000 BC1_LAT	Back at 7mm	0.827	0.895	0.590	1.72	1.42	1.49	2.31
		Bottom side at 8mm	1.039			1.04	1.04	0.00	1.04
LTE	LTE Band 66_LAT	Back at 7mm	1.070	0.895	0.590	1.95	1.64	1.49	2.54
		Bottom side at 8mm	0.823			0.82	0.82	0.00	0.82
	LTE Band 25_LAT	Back at 7mm	0.948	0.895	0.590	1.84	1.54	1.49	2.43
		Bottom side at 8mm	1.200			1.20	1.20	0.00	1.20
	LTE Band 30_LAT	Back at 7mm	1.138	0.895	0.590	2.03	1.73	1.49	2.62
		Bottom side at 8mm				0.00	0.00	0.00	0.00
	LTE Band 7_LAT	Back at 7mm	0.955	0.895	0.590	1.85	1.55	1.49	2.44
		Bottom side at 8mm				0.00	0.00	0.00	0.00
NR	N2_Ant3	Back at 7mm		0.895	0.590	0.90	0.59	1.49	1.49
		Bottom side at 8mm	0.659			0.66	0.66	0.00	0.66
	N25_Ant3	Back at 7mm		0.895	0.590	0.90	0.59	1.49	1.49
		Bottom side at 8mm	0.977			0.98	0.98	0.00	0.98
	N41(HPUE)_Ant3	Back at 7mm	0.584	0.895	0.590	1.48	1.17	1.49	2.07
		Bottom side at 8mm	0.435			0.44	0.44	0.00	0.44



## **21. Supplemental tuner tests results**

**General Note:**

1. This device implements aperture tuner (16 status) + impedance tuner (144 status) antenna tuning techniques in the GSM850, CDMA BC0/10, WCDMA B5, LTE 5/12/13/17/26/71, FR1 n5/n71.
2. This device implements impedance tuner (144 status) antenna tuning techniques in the GSM1900, CDMA BC1, WCDMA B2/4, LTE 2/4/7/25/30/38/41/66, FR1 n2/n25/n66/n41.
3. SAR test proposal was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing and this design will provide the highest power at different user scenarios and would not influence to the antenna characteristics other than impedance matching.
4. The following test procedure was followed to demonstrate that the SAR results in this report represent the appropriate SAR test conditions. For bands with dynamic tuning implemented, SAR will be measured according to the required FCC SAR test procedures with the dynamic tuner active to allow the device to automatically tune to the antenna state for the respective RF exposure test configurations. Additional single point SAR time-sweep measurements will be evaluated for other tuner states to determine that the other tuner configurations would result in equivalent or lower SAR values.
5. To evaluate all of the tuner states, the 144 tuner states are divided evenly among band, mode and exposure combinations so that at least one single point SAR measurement is measured in each configuration. Single point time-sweep measurements will be performed at the peak SAR location determined by the zoom scan of the configuration with the highest reported SAR for each combination. The tuner state will be established remotely so that the device is not moved for the entire series of single point SAR for the tuner states in each combination. The SAR probe will remain stationary at the same position throughout the entire series of single point measurements for each combination.
6. The device supports LTE B5/B26, B2/B25, B4/B66, B12/17, B38/B41. Since the supported frequency span for LTE B5/B2/B4/B17/B38 falls completely within the supported frequency span for LTE B26/B25/B66/B12/B41, and both bands have the same target power and both LTE bands share the same transmission path, therefore standalone SAR was only assessed for LTE B26/B25/B66/B12/B41. The single point SAR time-sweep measurements were treated independently for each supported ACL frequency band. For the LTE B5/B2/B4/B17/B38 single point SAR measurement selected the highest measured SAR configuration and exposure condition of LTE B26/B25/B66/B12/B41.
7. According to TCBC 201904 workshop, total number tuner states divided evenly among each supported band / air interface and exposure condition combination.
8. The tuner state was established remotely through Wi-Fi so that the device is not moved for the entire series of single point SAR for the tuner states in each combination (band, mode, exposure conditions).

### **21.1 Supplemental Tuner Head & Body SAR Results**

Please refer to Appendix F.

**Test Engineer** : Changlin Huang, Bin He, Mengming Dai



## **22. Uncertainty Assessment**

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



## **23. References**

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [6] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [8] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [9] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [10] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [11] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [12] FCC KDB 941225 D07 v01r02, " SAR Evaluation Procedures for UMPC Mini-Tablet Devices", Oct 2015.
- [13] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [14] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.



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**Appendix A. Plots of System Performance Check**

The plots are shown as follows.

## System Check\_Head\_750MHz

### DUT: D750V3-SN:1099

Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1

Medium: HSL\_750\_200713 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.883$  S/m;  $\epsilon_r = 40.81$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.3 °C

#### DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.64, 9.64, 9.64); Calibrated: 2020/4/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn528; Calibrated: 2020/3/16
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP:1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 2.77 W/kg

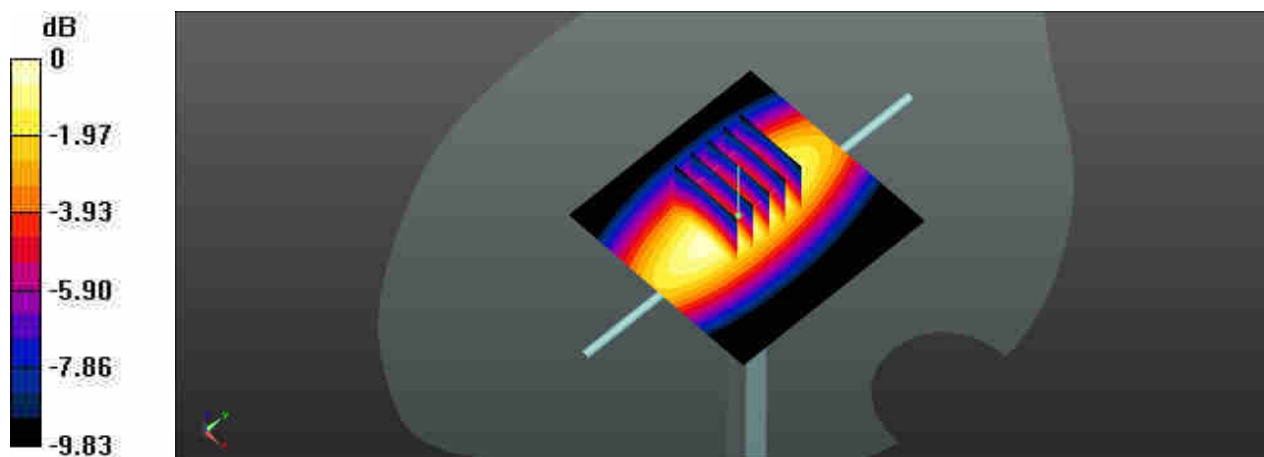
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 56.11 V/m; Power Drift = 0.09 dB

Peak SAR (extrapolated) = 3.24 W/kg

**SAR(1 g) = 2.22 W/kg; SAR(10 g) = 1.49 W/kg**

Maximum value of SAR (measured) = 2.78 W/kg



0 dB = 2.78 W/kg

## System Check\_Head\_750MHz

**DUT: D750V3-SN:1099**

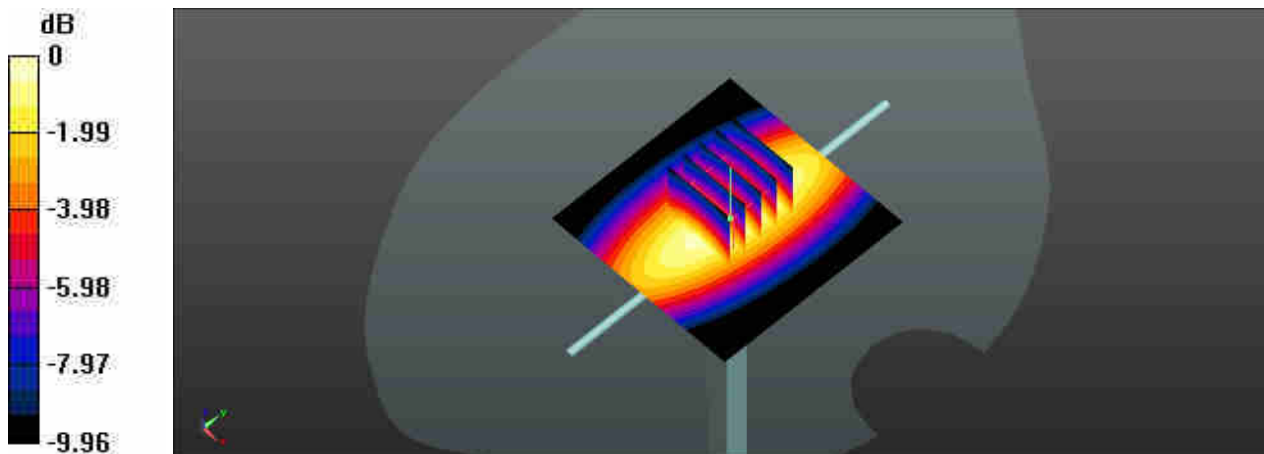
Communication System: UID 0, CW (0); Frequency: 750 MHz; Duty Cycle: 1:1  
Medium: HSL\_750\_200730 Medium parameters used:  $f = 750$  MHz;  $\sigma = 0.894$  S/m;  $\epsilon_r = 41.019$ ;  $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.2 °C; Liquid Temperature : 22.4 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.64, 9.64, 9.64); Calibrated: 2020/4/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2020/5/15
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP:1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 2.91 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 58.29 V/m; Power Drift = -0.03 dB  
Peak SAR (extrapolated) = 3.43 W/kg  
**SAR(1 g) = 2.32 W/kg; SAR(10 g) = 1.55 W/kg**  
Maximum value of SAR (measured) = 2.92 W/kg



0 dB = 2.92 W/kg



## System Check\_Head\_835MHz

**DUT: D835V2-SN:4d162**

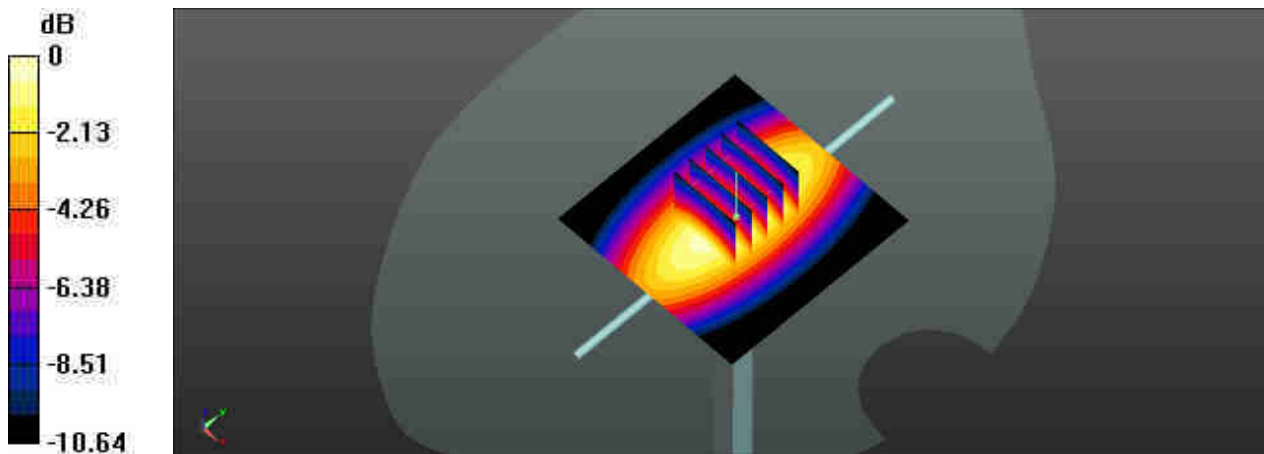
Communication System: UID 0, CW; Frequency: 835 MHz; Duty Cycle: 1:1  
Medium: HSL\_835\_200715 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.915 \text{ S/m}$ ;  $\epsilon_r = 41.529$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.3 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.4 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.39, 9.39, 9.39); Calibrated: 2020/4/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn528; Calibrated: 2020/3/16
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP:1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $2.93 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $58.34 \text{ V/m}$ ; Power Drift =  $0.01 \text{ dB}$   
Peak SAR (extrapolated) =  $3.43 \text{ W/kg}$   
**SAR(1 g) =  $2.35 \text{ W/kg}$ ; SAR(10 g) =  $1.55 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $2.95 \text{ W/kg}$



0 dB =  $2.95 \text{ W/kg}$

## System Check\_Head\_835MHz

**DUT: D835V2-SN:4d162**

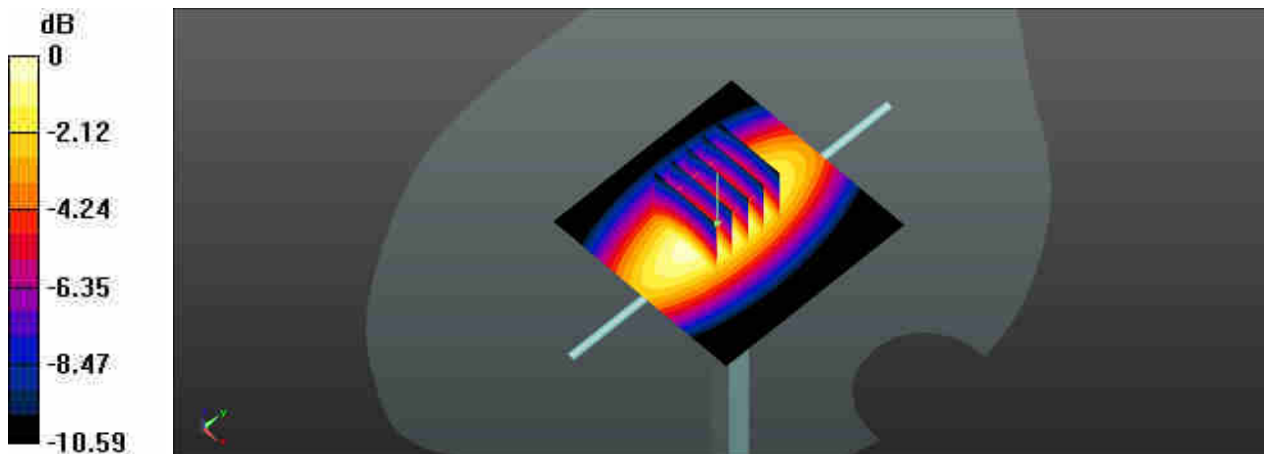
Communication System: UID 0, CW (0); Frequency: 835 MHz; Duty Cycle: 1:1  
Medium: HSL\_835\_200730 Medium parameters used:  $f = 835 \text{ MHz}$ ;  $\sigma = 0.927 \text{ S/m}$ ;  $\epsilon_r = 42.674$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.6 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.6 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(9.39, 9.39, 9.39); Calibrated: 2020/4/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2020/5/15
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP:1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $3.27 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $59.84 \text{ V/m}$ ; Power Drift =  $0.07 \text{ dB}$   
Peak SAR (extrapolated) =  $3.85 \text{ W/kg}$   
**SAR(1 g) =  $2.58 \text{ W/kg}$ ; SAR(10 g) =  $1.69 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $3.26 \text{ W/kg}$



0 dB =  $3.26 \text{ W/kg}$

## System Check\_Head\_1750MHz

**DUT: D1750V2-SN:1137**

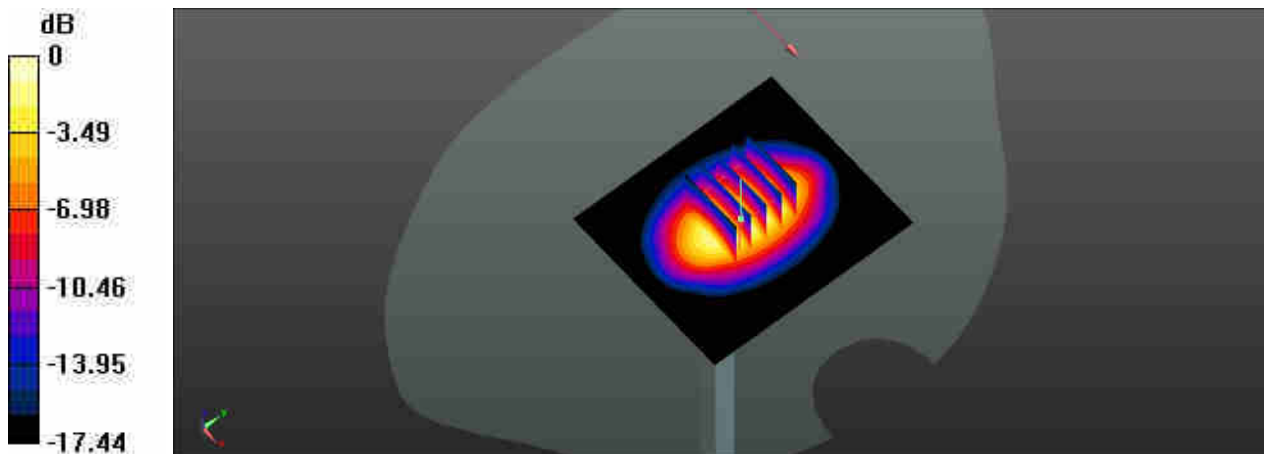
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750\_200725 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.395$  S/m;  $\epsilon_r = 40.742$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4 °C; Liquid Temperature : 22.6 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(8.43, 8.43, 8.43); Calibrated: 2020/4/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2020/5/15
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP:1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 15.2 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 102.5 V/m; Power Drift = -0.01 dB  
Peak SAR (extrapolated) = 18.4 W/kg  
**SAR(1 g) = 9.99 W/kg; SAR(10 g) = 5.26 W/kg**  
Maximum value of SAR (measured) = 14.4 W/kg



0 dB = 14.4 W/kg

## System Check\_Head\_1750MHz

**DUT: D1750V2-SN:1137**

Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1

Medium: HSL\_1750\_200805 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.378$  S/m;  $\epsilon_r = 41.34$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.2 °C; Liquid Temperature : 22.3 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(8.43, 8.43, 8.43); Calibrated: 2020/4/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2020/5/15
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP:1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 13.5 W/kg

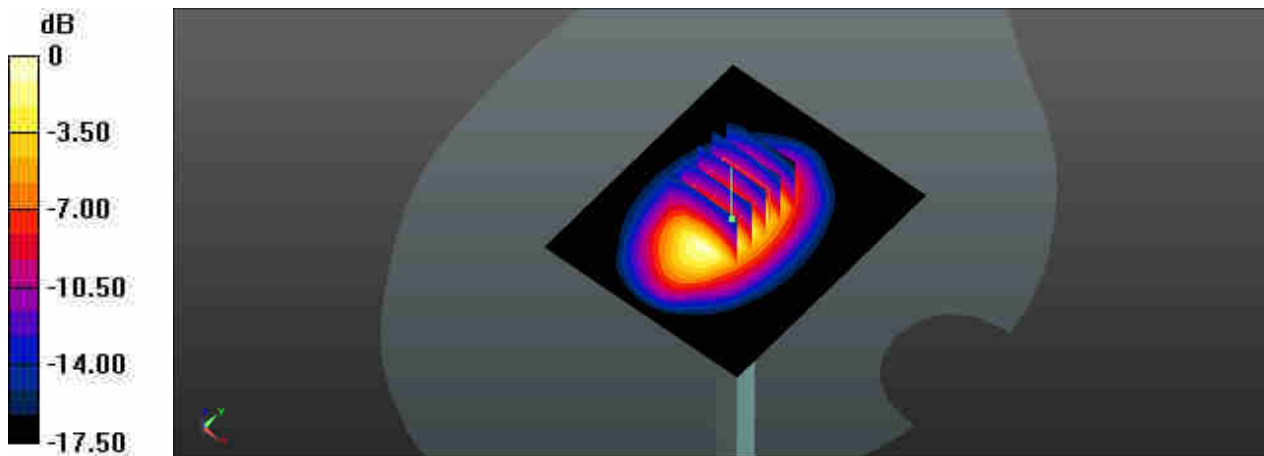
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 95.49 V/m; Power Drift = 0.17 dB

Peak SAR (extrapolated) = 16.7 W/kg

**SAR(1 g) = 9.13 W/kg; SAR(10 g) = 4.85 W/kg**

Maximum value of SAR (measured) = 12.8 W/kg



0 dB = 12.8 W/kg

## System Check\_Head\_1750MHz

**DUT: D1750V2-SN:1137**

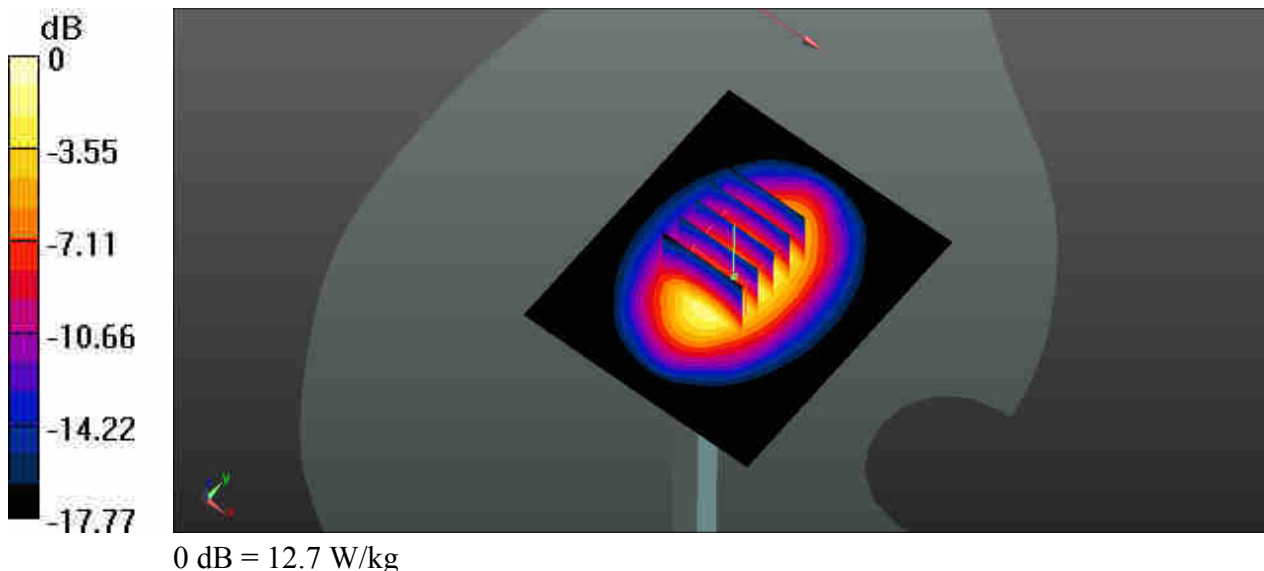
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750\_200702 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.355$  S/m;  $\epsilon_r = 38.395$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.6 °C ; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7576; ConvF(8.88, 8.88, 8.88); Calibrated: 2020.01.22;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn528; Calibrated: 2020.03.16
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1795
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 13.5 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 99.46 V/m; Power Drift = 0.03 dB  
Peak SAR (extrapolated) = 16.5 W/kg  
**SAR(1 g) = 9.02 W/kg; SAR(10 g) = 4.79 W/kg**  
Maximum value of SAR (measured) = 12.7 W/kg



## System Check\_Head\_1750MHz

**DUT:D1750V2-SN:1137**

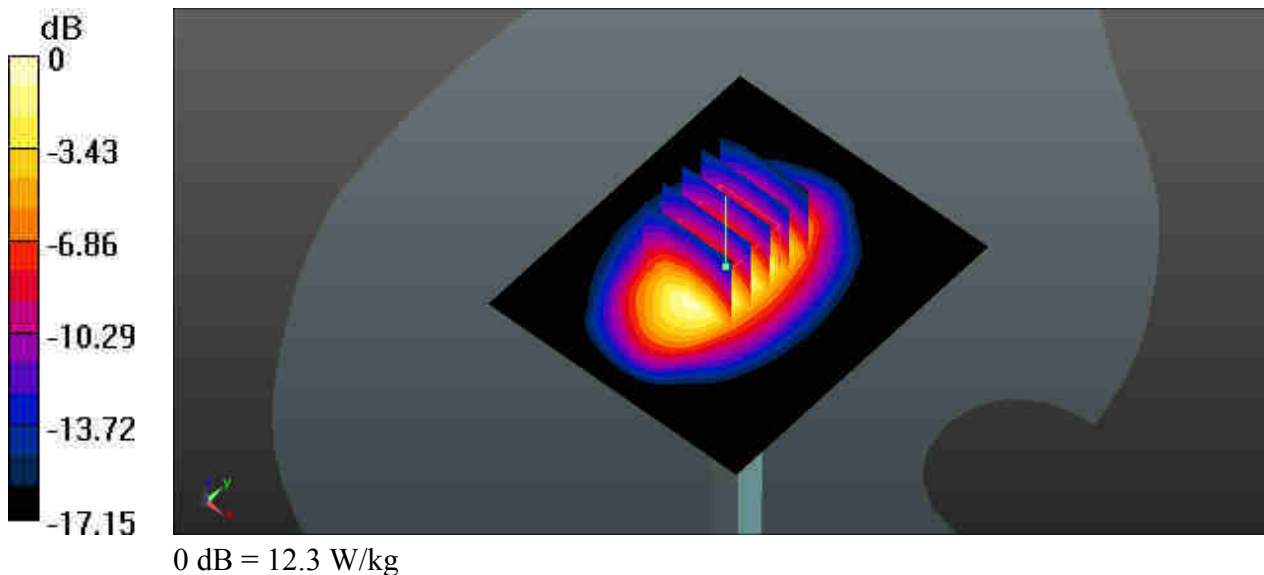
Communication System: UID 0, CW; Frequency: 1750 MHz; Duty Cycle: 1:1  
Medium: HSL\_1750\_200807 Medium parameters used:  $f = 1750$  MHz;  $\sigma = 1.402$  S/m;  $\epsilon_r = 41.374$ ;  
 $\rho = 1000$  kg/m<sup>3</sup>  
Ambient Temperature : 23.4 °C ; Liquid Temperature : 22.7 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN7576; ConvF(8.88, 8.88, 8.88); Calibrated: 2020.01.22;
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE3 Sn528; Calibrated: 2020.03.16
- Phantom: SAM (Front) with CRP v5.0; Type: QD000P40CD; Serial: TP:1795
- Measurement SW: DASY52, Version 52.8 (8); SEMCAD X Version 14.6.10 (7331)

**Pin=250mW/Area Scan (61x71x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm  
Maximum value of SAR (interpolated) = 13.3 W/kg

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm  
Reference Value = 92.06 V/m; Power Drift = 0.04 dB  
Peak SAR (extrapolated) = 15.7 W/kg  
**SAR(1 g) = 9.01 W/kg; SAR(10 g) = 4.86 W/kg**  
Maximum value of SAR (measured) = 12.3 W/kg



## System Check\_Head\_1900MHz

**DUT: D1900V2-SN:5d182**

Communication System: UID 0, CW; Frequency: 1900 MHz; Duty Cycle: 1:1

Medium: HSL\_1900\_200725 Medium parameters used:  $f = 1900$  MHz;  $\sigma = 1.45$  S/m;  $\epsilon_r = 40.004$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Ambient Temperature : 23.6 °C; Liquid Temperature : 22.5 °C

DASY5 Configuration:

- Probe: EX3DV4 - SN3819; ConvF(8.1, 8.1, 8.1); Calibrated: 2020/4/30
- Sensor-Surface: 2mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn1226; Calibrated: 2020/5/15
- Phantom: SAM (30deg probe tilt) with CRP v4.0; Type: QD000P40CC; Serial: TP:1500
- Measurement SW: DASY52, Version 52.10 (3); SEMCAD X Version 14.6.13 (7474)

**Pin=250mW/Area Scan (61x61x1):** Interpolated grid: dx=1.500 mm, dy=1.500 mm

Maximum value of SAR (interpolated) = 15.5 W/kg

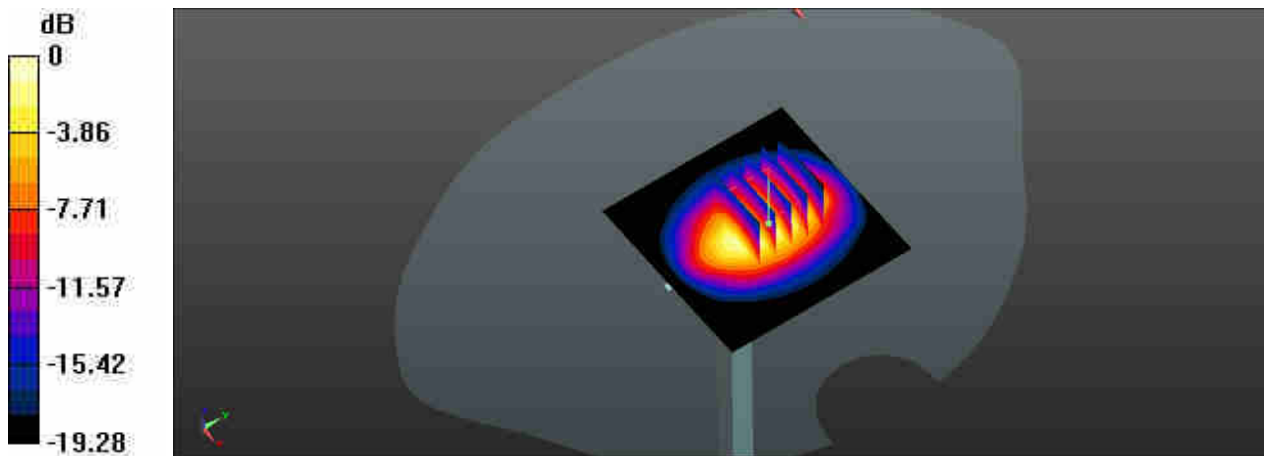
**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid: dx=8mm, dy=8mm, dz=5mm

Reference Value = 103.1 V/m; Power Drift = 0.01 dB

Peak SAR (extrapolated) = 19.7 W/kg

**SAR(1 g) = 10.3 W/kg; SAR(10 g) = 5.23 W/kg**

Maximum value of SAR (measured) = 15.0 W/kg



0 dB = 15.0 W/kg