

# FCC SAR TEST REPORT

FCC ID : 2ABZ2-EF136  
Equipment : Smart Phone  
Brand Name : ONEPLUS  
Model Name : LE2115  
Applicant : OnePlus Technology (Shenzhen) Co., Ltd.  
18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building,  
Binhe Avenue North, Futian District, Shenzhen  
Manufacturer : OnePlus Technology (Shenzhen) Co., Ltd.  
18C02, 18C03, 18C04 and 18C05, Shum Yip Terra Building,  
Binhe Avenue North, Futian District, Shenzhen  
Standard : FCC 47 CFR Part 2 (2.1093)

The product was received on Oct. 28, 2020 and testing was started from Dec. 05, 2020 and completed on Jan. 05, 2021. 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.

Hank Huang

Reviewed by: Hank Huang / Supervisor

Johnny Chen

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
FA002801-07	01	Initial issue of report	Feb. 05, 2021



### 1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **OnePlus Technology (Shenzhen) Co., Ltd., Smart Phone, LE2115**, 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	1.07	0.26	0.54		1.48
	GSM1900	0.96	0.30	0.73		
WCDMA	WCDMA V	1.18	0.35	0.66		
	WCDMA IV	1.05	0.55	0.60	1.39	
	WCDMA II	1.11	0.61	0.59	2.03	
CDMA	CDMA2000 BC10	1.19	0.23	0.52		
	CDMA2000 BC0	<b>1.20</b>	0.27	0.54		
	CDMA2000 BC1	1.08	0.44	0.85	2.57	
LTE	LTE Band 71	1.04	0.29	0.48		
	LTE Band 12 / 17	1.11	0.31	0.40		
	LTE Band 13	0.83	0.20	0.45		
	LTE Band 5	1.19	0.34	0.68		
	LTE Band 26	1.16	0.24	0.50		
	LTE Band 66 / 4	1.02	0.67	0.78	2.18	
	LTE Band 25 / 2	1.12	0.51	0.77	1.08	
	LTE Band 30	1.14	0.66	0.87	<b>2.77</b>	
	LTE Band 7	1.05	0.61	1.16	2.41	
	LTE Band 41 / 38	1.11	0.42	<b>1.18</b>	2.25	
LTE Band 48	1.04	0.42	1.02	2.56		
NR	N71	0.69	0.20	0.32		
	N5	0.78	0.19	0.31		
	N66	1.08	0.62	1.16	2.26	
	N25 / N2	1.14	0.62	1.14	2.76	
	N7	1.15	0.60	1.05	2.41	
	N41	1.14	<b>0.78</b>	1.02	2.46	
WLAN	2.4GHz WLAN	1.08	0.26	0.82		1.40
	5GHz WLAN	1.11	0.70	0.97	2.66	1.48
2.4GHz Band	Bluetooth	0.28	<0.10	0.33		1.40

Date of Testing: 2020/12/05 ~ 2021/01/05

**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	LE2115
FCC ID	2ABZ2-EF136
IMEI Code	990017410023747
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 n7: 2502.5 MHz ~ 2567.5 MHz 5G NR n25 : 1852.5 MHz ~ 1912.5 MHz 5G NR n41 : 2506.02 MHz ~ 2679.99 MHz 5G NR n66 : 1712.5 MHz ~ 1777.5 MHz 5G NR n71 : 665.5 MHz ~ 695.5 MHz 5G NR n77 : 3710.01 MHz ~ 3970.02 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 WPC: 100kHz~ 148.5 kHz
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/ac HT20/HT40/VHT20/VHT40 WLAN 2.4GHz : 802.11ax HE20/HE40



	WLAN 5GHz : 802.11a/n/ac/ax HT20/HT40/VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE ANT+: GFSK NFC: ASK WPC: ASK
HW Version	22
SW Version	Oxygen OS 11.2.LE25AA
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Production Unit

**Remark:**

1. This device supports VoIP in GPRS, EGPRS, CDMA, WCDMA and LTE (e.g. for 3rd-party VoIP) and LTE supports VoLTE operation.
2. This device does not support DTM operation and supports GRPS/EGRPS mode up to multi-slot class 33.
3. This device has WWAN UAT and LAT transmitter antennas which can refer to antenna location chapter.
4. The 2.4GHz/5GHz WLAN can transmit in MIMO antenna mode. 2.4G WLAN ANT2 SISO antenna mode can only be enabled when transmitting simultaneously with Bluetooth.
5. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications.
6. The device implements the power management and proximity sensor /receiver detection/hotspot mode 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.
7. 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 5G NR 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.
8. LTE band 41, 5G NR n41 supports HPUE, HPUE power and SAR testing performed separately.
9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
10. 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.
11. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
12. 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.
13. 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.
14. RF exposure report for WPC (Wireless power charging) will be separately submitted.
15. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode.
16. This is a variant report for LE2115. For change note, please refer the product equality declaration exhibit separately. Since the test result is not affected by the changes, all the test results are leveraged from original report which can be referred to Sporton Report Number FA002801-02.



<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	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, 30, 40, 50, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	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, 30, 40, 50, 80, 90, 100
	n77	TDD	30	20, 30, 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-EF136																																																														
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 2: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 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 Release Version	R15, Cat 20																																																														
CA Support	Yes, Uplink and Downlink																																																														
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 (N<sub>RB</sub>)</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>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>≤ 2</td> </tr> <tr> <td>256 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></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></td> <td colspan="6" style="text-align: center;">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>	Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						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	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	256 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2		> 5	> 4	> 8	> 12	> 16	> 18	≤ 3		≥ 1						≤ 5
Modulation	Channel bandwidth / Transmission bandwidth (N <sub>RB</sub> )						MPR (dB)																																																								
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QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1																																																								
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1																																																								
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	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																								
	≥ 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 14.																																																														
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 14.																																																														
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for LTE 41C/48C with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 7 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 #
L	23205		779.5		23230		782		23255		784.5		23230
M	23230		782		23230		782		23255		784.5		23230
H	23255		784.5		23230		782		23255		784.5		23230
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 #
L	23755		706.5		23780		709		23790		710		23790
M	23790		710		23790		710		23790		710		23790
H	23825		713.5		23800		711		23800		711		23800
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)				
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)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
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)				
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560				
LM	55810	3607	55815	3607.5	55820	3608	55830	3609				
MH	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)				
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				



5G NR Information								
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1852.5 MHz ~ 1907.5 MHz 5G NR n5 : 826.5 MHz ~ 846.5 MHz 5G NR n7: 2502.5 MHz ~ 2567.5 MHz 5G NR n25 : 1852.5 MHz ~ 1912.5 MHz 5G NR n41 : 2506.02 MHz ~ 2679.99 MHz 5G NR n66 : 1712.5 MHz ~ 1777.5 MHz 5G NR n71 : 665.5 MHz ~ 695.5 MHz 5G NR n77 : 3710.01 MHz ~ 3970.02 MHz							
Channel Bandwidth	5G NR n2: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n5: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n7: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n25: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n41: 20MHz, 30MHz, 40MHz, 50MHz, 80MHz, 90MHz, 100MHz 5G NR n66: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n71: 5MHz, 10MHz, 15MHz, 20MHz 5G NR n77: 20MHz, 30MHz, 40MHz, 50MHz, 60MHz, 80MHz, 90MHz, 100MHz							
SCS	FDD: SCS15KHz, TDD: SCS30KHz							
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM QPSK / 16QAM / 64QAM / 256QAM							
A-MPR (Additional MPR) disabled for SAR Testing?	Yes							
LTE Anchor Bands for n2	LTE B5/12/13/66							
LTE Anchor Bands for n5	LTE B2/4866							
LTE Anchor Bands for n25	LTE B12/66							
LTE Anchor Bands for n41	LTE B2/66							
LTE Anchor Bands for n66	LTE B2/5/12/13/48							
LTE Anchor Bands for n71	LTE B2/66							
LTE Anchor Bands for n77	LTE B7/ B5/13/66							
Transmission (H, M, L) channel numbers and frequencies in each 5G NR band								
NR Band 2								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900
NR Band 5								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	165300	826.5	165800	829	166300	831.5	166800	834
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5
H	169300	846.5	168800	844	168300	841.5	167800	839
NR Band 7								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510
M	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560
NR Band 25								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905
NR Band 66								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720
M	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770
NR Band 71								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	134100	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	138100	690.5	137600	688



NR Band 41														
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	529998	2649.99	528996	2644.98	528000	2640

NR Band 77																
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	664668	3970.02	664000	3965.01	664000	3960	663668	3955.02	663334	3950.01	662668	3940.02	662334	3935.01	662000	3930



### 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 <sub>design_target</sub> .
<b>P<sub>max</sub></b>	Maximum target power level
<b>SAR<sub>design_target</sub>:</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<sub>design\_target</sub> 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	Head	Body	Hotspot	Extremity	Pmax*
		DSI 1	Sim-2Tx(2.4G) DSI 2	Sim-2Tx(5G) DSI 3	Sim-3Tx(2.4G+5G) DSI 4	Worn DSI 0	DSI 5	DSI 7	
GSM850(4 Tx slots)	0	22.7	22.7	22.7	22.7	31.1	27.9	24.5	24.5
GSM1900(4 Tx slots)	2	16.0	16.0	16.0	16.0	28.3	23.3	20.8	20.8
WCDMA II	2	17.5	17.5	17.5	17.5	26.5	22.2	23.8	23.8
WCDMA IV	2	18.0	18.0	18.0	18.0	27.8	22.5	23.8	23.8
WCDMA V	0	22.5	21.2	21.2	21.2	29.1	26.9	23.8	23.8
CDMA BC0	0	23.5	22.0	22.0	22.0	30.6	27.2	23.8	23.8
CDMA BC1	2	17.5	17.5	17.5	17.5	27.0	22.5	23.8	23.8
CDMA BC10	0	24.7	23.5	23.5	23.5	31.7	29.9	23.7	23.7
LTE B2/25	2	17.5	17.5	17.5	17.5	27.2	22.5	23.8	23.8
LTE B66/4	2	18.0	18.0	18.0	18.0	30.5	22.5	23.8	23.8
LTE B66/4 <sup>1,2</sup>	0	16.0	16.0	16.0	16.0	23.8	16.8	18.0	23.8
LTE B7 <sup>2</sup>	0	16.5	16.5	16.5	16.5	23.8	16.0	21.0	23.8
LTE B5	0	22.7	20.5	20.5	20.5	29.2	26.2	23.8	23.8
LTE B7	2	14.5	14.5	14.5	14.5	24.4	18.0	23.8	23.8
LTE B12/B17	0	24.4	22.7	22.7	22.7	29.7	28.4	23.8	23.8
LTE B13	0	25.7	23.5	23.5	23.5	31.5	29.8	23.8	23.8
LTE B26	0	23.5	21.5	21.5	21.5	30.3	27.7	23.8	23.8
LTE B30	2	16.5	16.5	16.5	16.5	26.6	21.0	23.8	23.8
LTE B41/38 PC3	2	15.0	15.0	15.0	15.0	23.5	17.8	22.2	21.8
LTE B41 PC2	2	15.0	15.0	15.0	15.0	23.5	17.8	22.2	22.2
LTE B48	7	16.3	16.3	16.3	16.3	26.1	21.0	21.8	21.8
LTE B71	0	25.3	25.3	25.3	25.3	29.9	29.0	23.8	23.8
NR_n71	0	26.0	26.0	26.0	26.0	30.8	29.6	23.8	23.8
NR_n5	0	25.9	25.9	25.9	25.9	33.3	30.7	23.3	23.3
NR_n66	2	17.2	17.2	17.2	17.2	28.3	23.4	23.8	23.8
NR_n66 <sup>2</sup>	0	17.0	17.0	17.0	17.0	24.4	19.2	18.8	23.8
NR_n2	2	17.2	17.2	17.2	17.2	27.2	23.0	23.8	23.8
NR_n25	2	17.2	17.2	17.2	17.2	27.2	23.0	23.8	23.8
NR_n7	2	15.2	15.2	15.2	15.2	24.7	18.0	23.8	23.8
NR_n41 PC3 <sup>2</sup>	0	17.0	17.0	17.0	17.0	25.8	17.1	19.0	23.1
NR_n41 PC2 <sup>2</sup>	0	17.0	17.0	17.0	17.0	25.8	17.1	19.0	25.8
NR_n41 PC3	2	14.2	14.2	14.2	14.2	25.8	17.1	25.8	23.1
NR_n41 PC2	2	14.2	14.2	14.2	14.2	25.8	17.1	25.8	25.8
NR_n77	7	17.2	15.7	15.7	15.7	26.2	19.6	23.8	23.8

Note1: LTE Band 66/4 ant 0 only for LTE inter-band uplink CA

Note2: LTE Band 66/7 and NR 41/66 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	Head	Head	Head	Body	Hotspot	Extremity	P <sub>max</sub> *
		DSI 1	Sim-2Tx(2.4G) DSI 2	Sim-2Tx(5G) DSI 3	Sim-3Tx(2.4G+5G) DSI 4	Worn DSI 0	DSI 5	DSI 8	
GSM850(3 Tx slots)	1	30.4	30.4	30.4	30.4	26.8	28.9	24.5	24.5
GSM1900(4 Tx slots)	3	31.4	31.4	31.4	31.4	28.3	24.7	21.8	21.8
WCDMA II	3	29.5	29.5	29.5	29.5	25.6	19.3	19.3	23.8
WCDMA IV	3	30.5	30.5	30.5	30.5	26.1	20.0	20.0	23.8
WCDMA V	1	30.2	30.2	30.2	30.2	30.8	28.5	23.8	23.8
CDMA BC0	1	29.5	29.5	29.5	29.5	30.3	29.4	23.8	23.8
CDMA BC1	3	29.0	29.0	29.0	29.0	25.9	21.0	20.2	23.8
CDMA BC10	1	30.1	30.1	30.1	30.1	31.3	28.8	23.8	23.8
LTE B2/25	3	30.0	30.0	30.0	30.0	25.8	19.8	20.0	23.8
LTE B66/4	3	32.4	32.4	32.4	32.4	26.8	20.2	21.0	23.8
LTE B66/4 <sup>1,2</sup>	1	32.3	32.3	32.3	32.3	30.7	27.3	23.8	23.8
LTE B5	1	29.4	29.4	29.4	29.4	29.9	28.5	23.8	23.8
LTE B7	3	28.7	28.7	28.7	28.7	26.5	20.0	18.2	23.8
LTE B7 <sup>2</sup>	1	31.8	31.8	31.8	31.8	33.1	29.2	23.8	23.8
LTE B12/B17	1	31.3	31.3	31.3	31.3	31.0	23.0	23.8	23.8
LTE B13	1	31.4	31.4	31.4	31.4	32.1	29.9	23.8	23.8
LTE B26	1	30.2	30.2	30.2	30.2	30.9	29.2	23.8	23.8
LTE B30	3	28.9	28.9	28.9	28.9	26.3	20.7	19.7	23.8
LTE B41/38 PC3	3	28.9	28.9	28.9	28.9	26.4	20.1	22.2	21.8
LTE B41 PC2	3	28.9	28.9	28.9	28.9	26.4	20.1	22.2	22.2
LTE B71	1	32.5	32.5	32.5	32.5	31.9	27.2	23.8	23.8
NR_n71	1	34.2	34.2	34.2	34.2	34.2	28.8	23.8	23.8
NR_n5	1	33.9	33.9	33.9	33.9	34.6	31.5	23.3	23.3
NR_n66	3	31.3	31.3	31.3	31.3	26.7	20.0	21.0	23.8
NR_n66 <sup>2</sup>	1	34.5	34.5	34.5	34.5	34.0	30.7	23.8	23.8
NR_n2	3	30.8	30.8	30.8	30.8	27.3	20.5	20.3	23.8
NR_n25	3	30.8	30.8	30.8	30.8	27.3	20.5	20.3	23.8
NR_n7	3	28.6	28.6	28.6	28.6	26.5	20.0	18.8	23.8
NR_n41 PC3 <sup>2</sup>	1	31.6	31.6	31.6	31.6	31.8	28.2	25.8	23.8
NR_n41 PC2 <sup>2</sup>	1	31.6	31.6	31.6	31.6	31.8	28.2	25.8	25.8
NR_n41 PC3	3	29.3	29.3	29.3	29.3	27.0	20.2	19.2	23.8
NR_n41 PC2	3	29.3	29.3	29.3	29.3	27.0	20.2	19.2	25.8

Note1: LTE Band 66/4 ant 1 only for LTE inter-band uplink CA

Note2: LTE Band 66/7 and NR 41/66 ant 1 only for EN-DC combination

\*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).

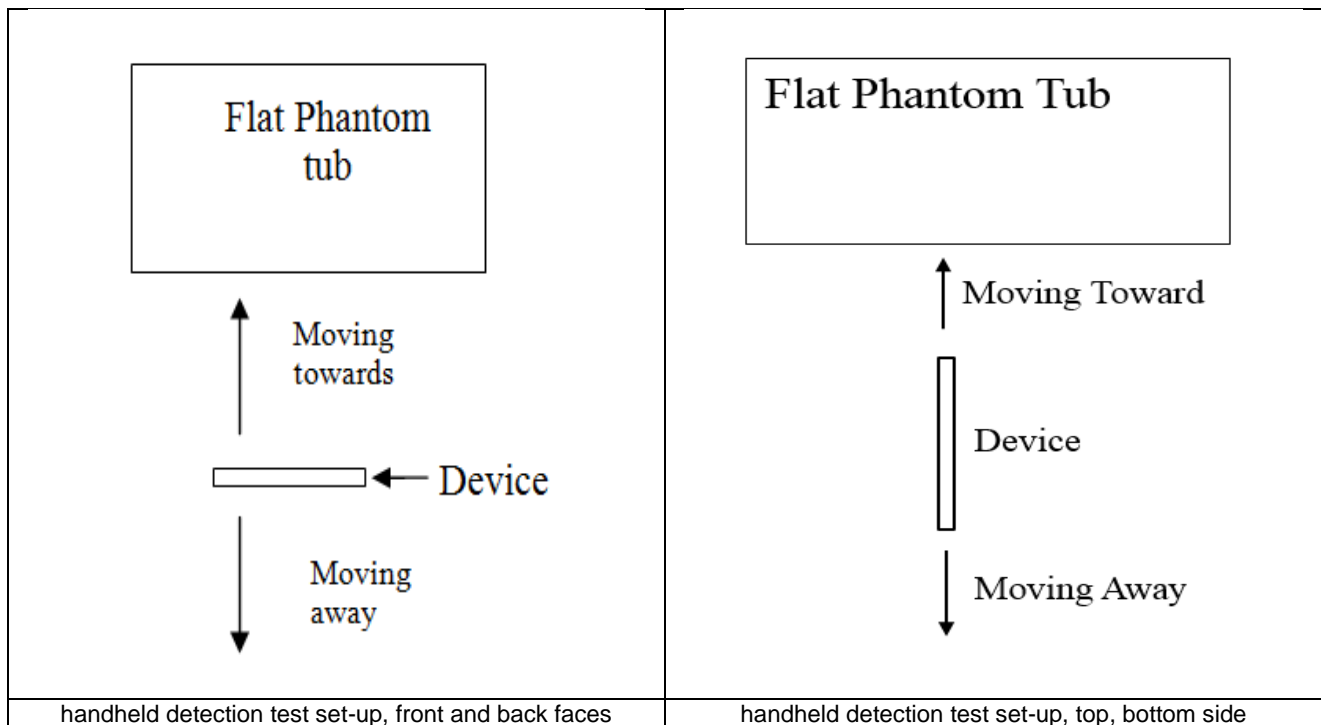
The max allowed output power is the P<sub>limit</sub> + 1dB device uncertainty, and if P<sub>limit</sub> is higher than P<sub>max</sub>, the device output power will be P<sub>max</sub> instead.



## 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 front / back / bottom / top of the device.
3. For LAT Antenna: When the sensor is active, the device will reduce maximum output powers on the WCDMA B2/B4, CDMA BC1 and LTE B7 / B25 / B30 / B66, FR1 n7/n25/n41 transmitter.
4. For UAT Antenna: When the sensor is active, the device will reduce maximum output powers on the LTE B7 / B66, and FR1 n41/n66 transmitter.
5. The proximity sensors trigger distance can refer to the following table.
6. 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:
  - For LAT:
    - Front: [5 mm](#)
    - Back: [8 mm](#)
    - Bottom side: [7 mm](#)
  - For UAT:
    - Back: [8 mm](#)
    - Top side: [9 mm](#)





Proximity Sensor Trigger Distance (mm) for LAT						
Position	Front		Back		Bottom Side	
Position	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	7	9	10	8	9

Proximity Sensor Trigger Distance (mm) for UAT				
Position	Back		Top Side	
Position	Moving towards	Moving away	Moving towards	Moving away
Minimum	9	9	10	11



## 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:

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

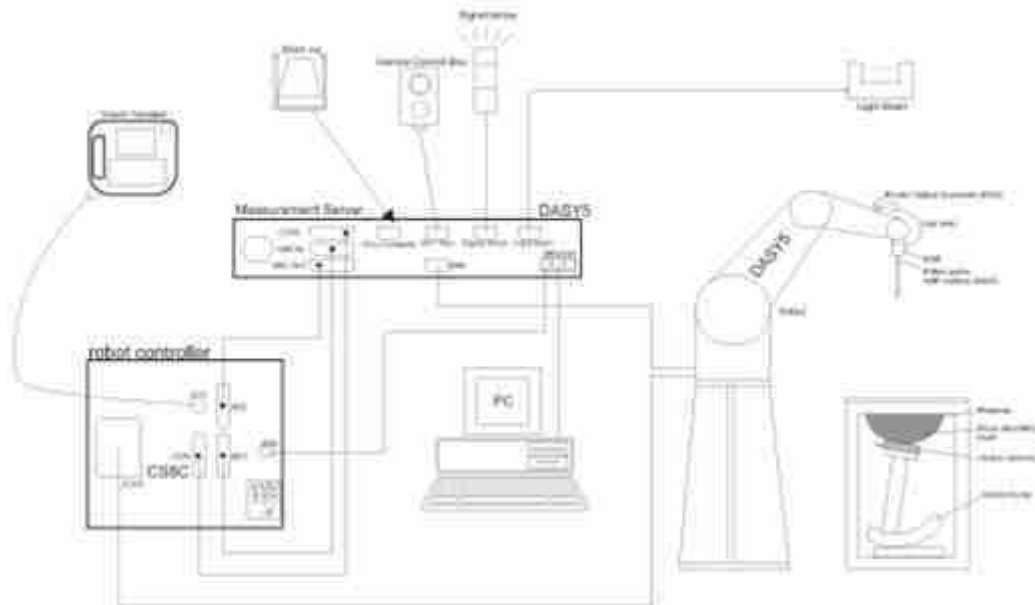
SAR is expressed in units of Watts per kilogram (W/kg)

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

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 Reduced 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.

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

**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	Nov. 24, 2021
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 05, 2018	Nov. 24, 2021
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Jul. 30, 2018	Jul. 22, 2021
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 07, 2018	Nov. 24, 2021
SPEAG	2300MHz System Validation Kit	D2300V2	1056	Nov. 01, 2018	Oct. 31, 2021
SPEAG	2450MHz System Validation Kit	D2450V2	924	Sep. 02, 2020	Sep. 01, 2021
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 07, 2018	Nov. 24, 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	3900MHz System Validation Kit	D3900V2	1022	Jul. 11, 2019	Jul. 10, 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	Dosimetric E-Field Probe	EX3DV4	7576	Jan. 22, 2020	Jan. 21, 2021
SPEAG	SAM Twin Phantom	SAM V5.0	1795	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201300653	Jul. 21, 2020	Jul. 20, 2021
Anritsu	Radio communication analyzer	MT8821C	6201588577	Mar. 26, 2020	Mar. 25, 2021
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 21, 2020	Jul. 20, 2021
Agilent	Network Analyzer	E5071C	MY46523671	Oct. 15, 2020	Oct. 14, 2021
Speag	Dielectric Assessment KIT	DAK-3.5	1138	May 19, 2020	May 18, 2021
Agilent	Signal Generator	N5181A	MY50145381	Dec. 26, 2019	Dec. 25, 2020
Agilent	Signal Generator	N5181A	MY50145381	Dec. 25, 2020	Dec. 24, 2021
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 Sensor	MA2411B	1207253	Dec. 25, 2020	Dec. 24, 2021
Anritsu	Power Meter	ML2495A	1218010	Dec. 26, 2019	Dec. 25, 2020
Anritsu	Power Meter	ML2495A	1218010	Dec. 25, 2020	Dec. 24, 2021
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 26, 2019	Dec. 25, 2020
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 25, 2020	Dec. 24, 2021
R&S	Spectrum Analyzer	FSP7	100818	Jul. 21, 2020	Jul. 20, 2021
TES	Hygrometer	1310	200505600	Jul. 30, 2020	Jul. 29, 2021
Anymetre	Thermo-Hygrometer	JR593	2015102801	Dec. 30, 2019	Dec. 29, 2020
Anymetre	Thermo-Hygrometer	JR593	2018100801	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.

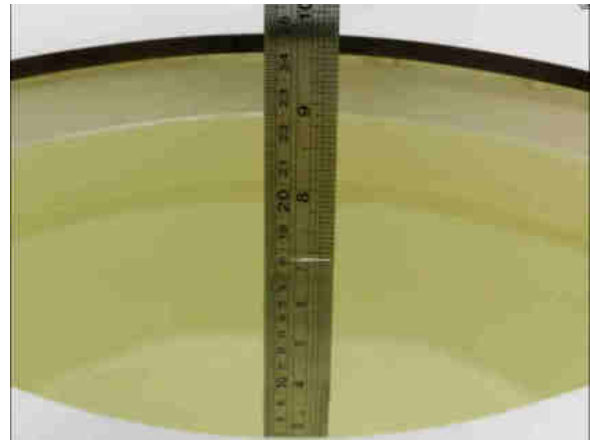
## **12. System Verification**

### **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 (σ)	Permittivity (εr)
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
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)	Tissue Type	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (εr)	Conductivity Target (σ)	Permittivity Target (εr)	Delta (σ) (%)	Delta (εr) (%)	Limit (%)	Date
750	Head	22.6	0.896	40.991	0.89	41.90	0.67	-2.17	±5	2020/12/10
750	Head	22.5	0.881	40.813	0.89	41.90	-1.01	-2.59	±5	2021/1/4
835	Head	22.7	0.902	40.749	0.90	41.50	0.22	-1.81	±5	2020/12/12
835	Head	22.7	0.910	42.910	0.90	41.50	1.11	3.40	±5	2021/1/5
1750	Head	22.8	1.355	38.395	1.37	40.10	-1.09	-4.25	±5	2020/12/5
1750	Head	22.4	1.388	41.364	1.37	40.10	1.31	3.15	±5	2020/12/20
1900	Head	22.6	1.406	39.291	1.40	40.00	0.43	-1.77	±5	2020/12/8
1900	Head	22.5	1.422	40.315	1.40	40.00	1.57	0.79	±5	2020/12/22
2300	Head	22.5	1.687	38.801	1.67	39.50	1.02	-1.77	±5	2020/12/13
2300	Head	22.4	1.694	38.564	1.67	39.50	1.44	-2.37	±5	2020/12/24
2450	Head	22.4	1.865	37.492	1.80	39.20	3.61	-4.36	±5	2020/12/14
2450	Head	22.6	1.881	37.273	1.80	39.20	4.50	-4.92	±5	2021/1/4
2600	Head	22.6	2.050	38.344	1.96	39.00	4.59	-1.68	±5	2020/12/16
2600	Head	22.7	2.049	37.176	1.96	39.00	4.54	-4.68	±5	2020/12/27
3500	Head	22.5	2.909	38.635	2.91	37.90	-0.03	1.94	±5	2021/1/1
3700	Head	22.6	3.054	38.374	3.12	37.70	-2.12	1.79	±5	2021/1/2
3900	Head	22.7	3.199	38.142	3.33	37.51	-3.93	1.68	±5	2021/1/3
5250	Head	22.5	4.748	36.881	4.71	35.95	0.81	2.59	±5	2020/12/26
5250	Head	22.6	4.526	37.282	4.71	35.95	-3.91	3.71	±5	2020/12/28
5600	Head	22.6	5.189	36.130	5.07	35.50	2.35	1.77	±5	2020/12/28
5600	Head	22.4	4.876	36.810	5.07	35.50	-3.83	3.69	±5	2021/1/2
5750	Head	22.7	5.364	35.845	5.22	35.35	2.76	1.40	±5	2020/12/30
5750	Head	22.8	5.014	36.603	5.22	35.35	-3.95	3.54	±5	2021/1/3

### **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>**

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2020/12/10	750	Head	250	1099	7576	528	2.14	8.52	8.56	0.47
2021/1/4	750	Head	250	1099	7576	528	2.12	8.52	8.48	-0.47
2020/12/12	835	Head	250	4d162	7576	528	2.44	9.61	9.76	1.56
2021/1/5	835	Head	250	4d162	7576	528	2.46	9.61	9.84	2.39
2020/12/5	1750	Head	250	1137	7576	528	9.17	36.50	36.68	0.49
2020/12/20	1750	Head	250	1137	7576	528	8.92	36.50	35.68	-2.25
2020/12/8	1900	Head	250	5d182	7576	528	10.00	39.60	40	1.01
2020/12/22	1900	Head	250	5d182	7576	528	9.71	39.60	38.84	-1.92
2020/12/13	2300	Head	250	1056	7576	528	11.90	49.90	47.6	-4.61
2020/12/24	2300	Head	250	1056	7576	528	12.00	49.90	48	-3.81
2020/12/14	2450	Head	250	924	7576	528	13.20	51.40	52.8	2.72
2021/1/4	2450	Head	250	924	7576	528	12.70	51.40	50.8	-1.17
2020/12/16	2600	Head	250	1070	7576	528	15.40	58.10	61.6	6.02
2020/12/27	2600	Head	250	1070	7576	528	14.40	58.10	57.6	-0.86
2021/1/1	3500	Head	100	1076	7576	528	6.65	67.90	66.5	-2.06
2021/1/2	3700	Head	100	1037	7576	528	6.61	68.50	66.1	-3.50
2021/1/3	3900	Head	100	1022	7576	528	6.36	70.50	63.6	-9.79
2020/12/26	5250	Head	100	1167	7576	528	8.29	77.00	82.9	7.66
2020/12/28	5250	Head	100	1167	7576	528	7.90	77.00	79	2.60
2020/12/28	5600	Head	100	1167	7576	528	8.44	80.80	84.4	4.46
2021/1/2	5600	Head	100	1167	7576	528	7.93	80.80	79.3	-1.86
2020/12/30	5750	Head	100	1167	7576	528	8.33	76.90	83.3	8.32
2021/1/3	5750	Head	100	1167	7576	528	7.79	76.90	77.9	1.30

<10g SAR>

Date	Frequency (MHz)	Tissue Type	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 (%)
2020/12/10	750	Head	250	1099	7576	528	1.44	5.64	5.76	2.13
2021/1/4	750	Head	250	1099	7576	528	1.43	5.64	5.72	1.42
2020/12/12	835	Head	250	4d162	7576	528	1.61	6.35	6.44	1.42
2021/1/5	835	Head	250	4d162	7576	528	1.62	6.35	6.48	2.05
2020/12/5	1750	Head	250	1137	7576	528	4.91	19.50	19.64	0.72
2020/12/20	1750	Head	250	1137	7576	528	4.81	19.50	19.24	-1.33
2020/12/8	1900	Head	250	5d182	7576	528	5.14	20.70	20.56	-0.68
2020/12/22	1900	Head	250	5d182	7576	528	5.01	20.70	20.04	-3.19
2020/12/13	2300	Head	250	1056	7576	528	5.59	23.80	22.36	-6.05
2020/12/24	2300	Head	250	1056	7576	528	5.61	23.80	22.44	-5.71
2020/12/14	2450	Head	250	924	7576	528	5.98	24.00	23.92	-0.33
2021/1/4	2450	Head	250	924	7576	528	5.72	24.00	22.88	-4.67
2020/12/16	2600	Head	250	1070	7576	528	6.68	26.10	26.72	2.38
2020/12/27	2600	Head	250	1070	7576	528	6.21	26.10	24.84	-4.83
2021/1/1	3500	Head	100	1076	7576	528	2.51	25.30	25.1	-0.79
2021/1/2	3700	Head	100	1037	7576	528	2.42	24.80	24.2	-2.42
2021/1/3	3900	Head	100	1022	7576	528	2.22	24.60	22.2	-9.76
2020/12/26	5250	Head	100	1167	7576	528	2.34	22.00	23.4	6.36
2020/12/28	5250	Head	100	1167	7576	528	2.23	22.00	22.3	1.36
2020/12/28	5600	Head	100	1167	7576	528	2.39	23.20	23.9	3.02
2021/1/2	5600	Head	100	1167	7576	528	2.25	23.20	22.5	-3.02
2020/12/30	5750	Head	100	1167	7576	528	2.36	21.60	23.6	9.26
2021/1/3	5750	Head	100	1167	7576	528	2.21	21.60	22.1	2.31

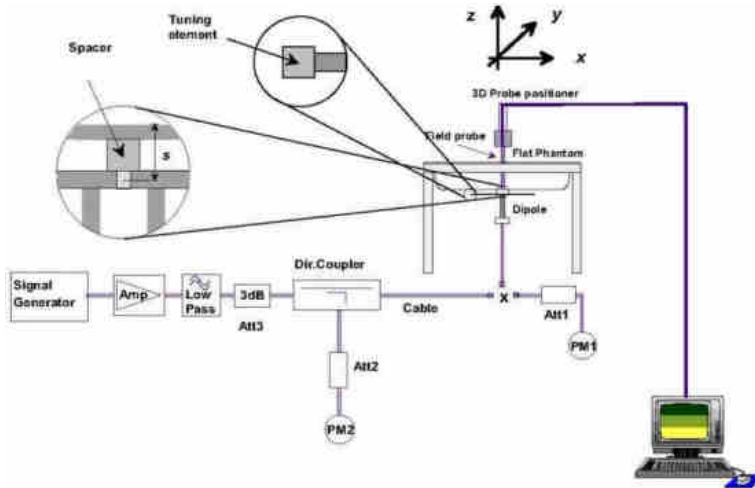


Fig 8.3.1 System Performance Check Setup



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.

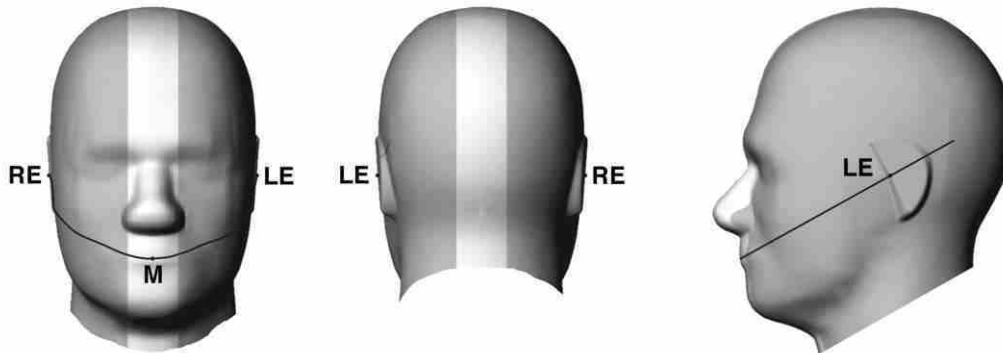


Fig 9.1.1 Front, back, and side views of SAM twin phantom

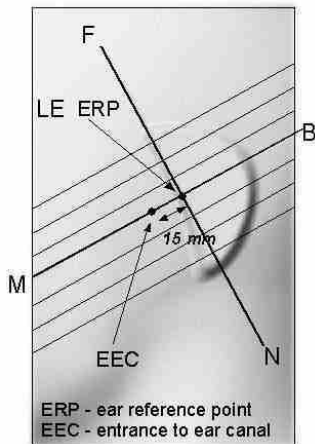


Fig 9.1.2 Close-up side view of phantom showing the ear region.

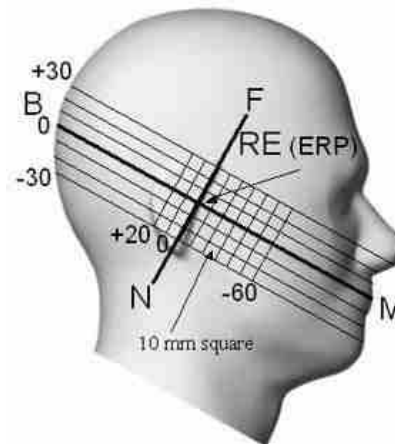
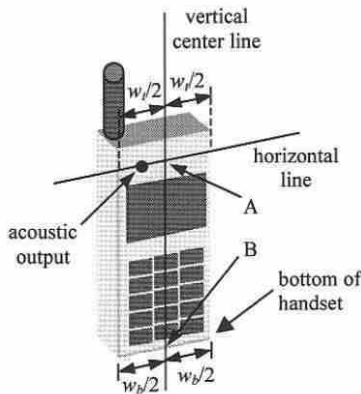


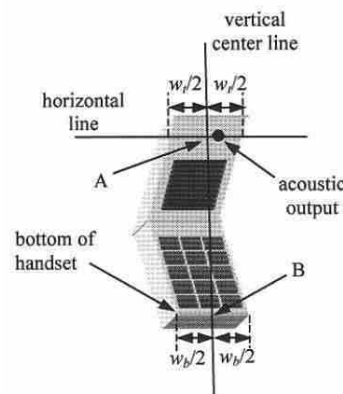
Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

**13.2 Definition of the cheek position**

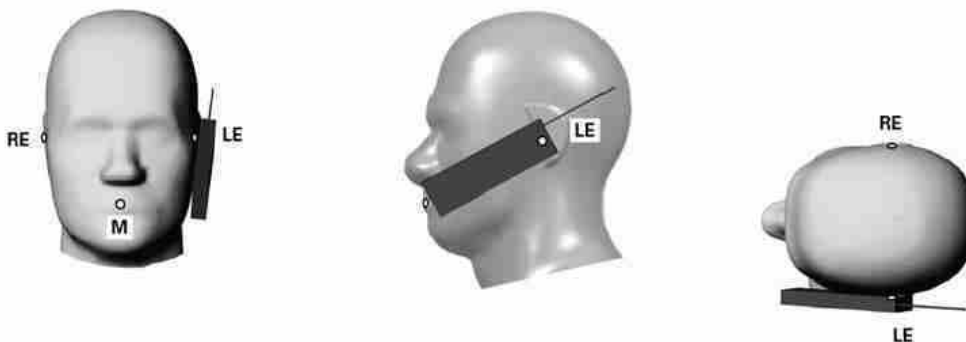
1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal 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”**



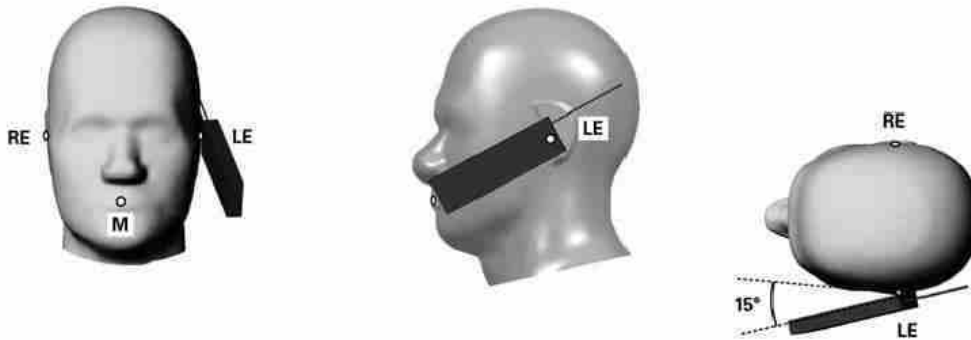
**Fig 9.2.2 Handset vertical and horizontal reference lines—“clam-shell case”**



**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

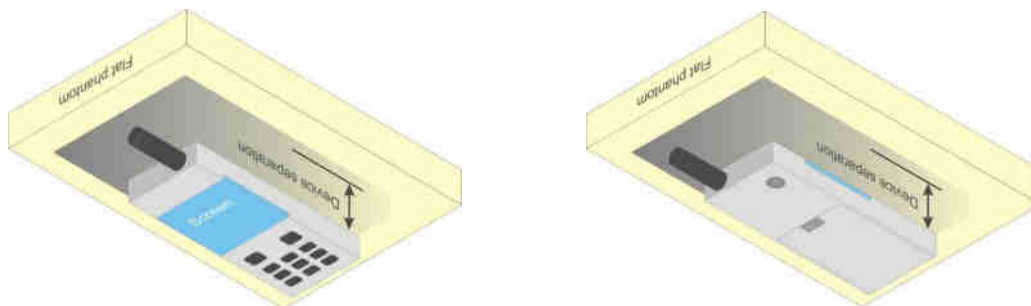


**Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.**

**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 tested 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.<sup>6</sup> 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 ( $L \times W \geq 9$  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 (4Tx slots) for GSM850 Top Antenna, GPRS (3Tx slots) for GSM850 Bottom Antenna, GPRS (4Tx slots) for GSM1900 Top Antenna and Bottom Antenna are 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)	$\beta_c/\beta_d$	$\beta_{ES}$ (Note1)	$\beta_{EC}$	$\beta_{ed}$ (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  $\Delta_{CSI} = 30/15$  with  $\beta_{MS} = 30/15 * \beta_c$ . For sub-test 5,  $\Delta_{ACK}$ ,  $\Delta_{NACK}$  and  $\Delta_{CSI} = 5/15$  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:**

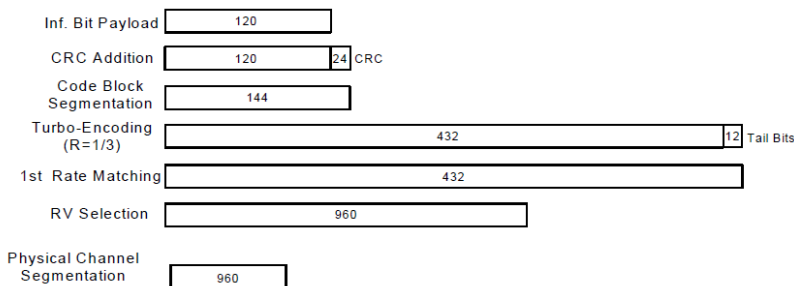
- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration below
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
  - i. Set RMC 12.2Kbps + HSDPA mode.
  - ii. Set Cell Power = -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  $\beta_{HS} = 30/15 * \beta_c$ .

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>**

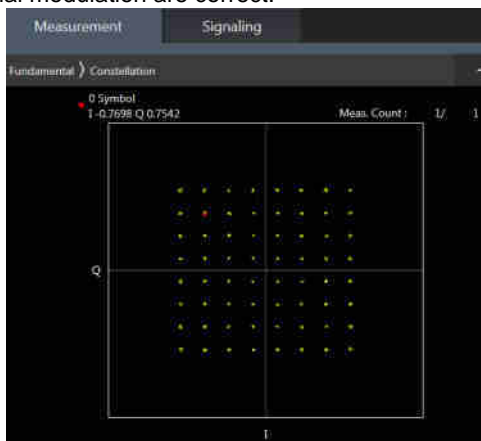
**General Note:**

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**



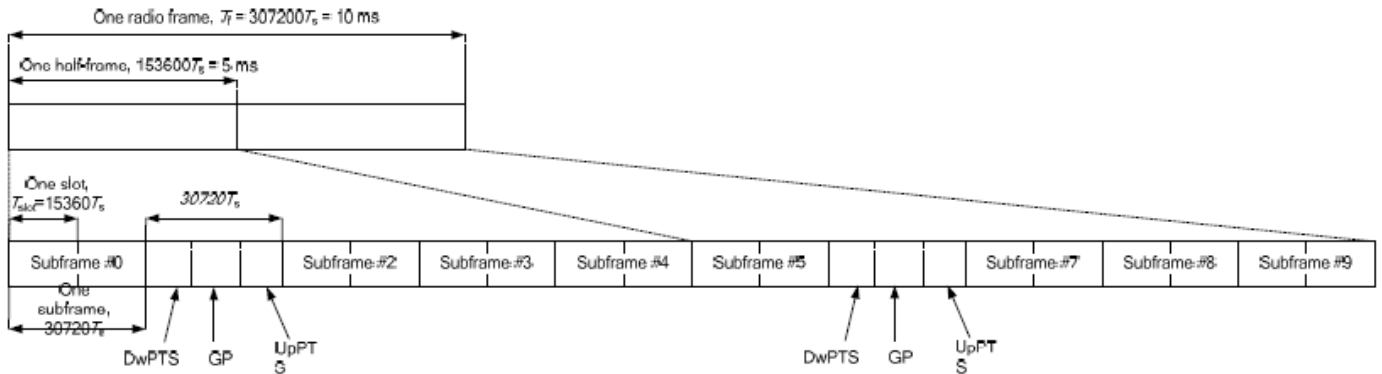
**16QAM**

**<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	4384 · Ts	5120 · Ts
5	6592 · Ts	4384 · Ts	5120 · Ts	20480 · 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 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		4CC-1
2	CA_2A-4A	2A, 4A, 2A-4A		3CC-5	2	CA_2A-2A-12A	2A, 2A-2A		4CC-3
3	CA_2A-5A	2A		3CC-10	3	CA_2A-2A-66A	2A, 66A, 2A-2A, 2A-66A, 2A-2A-66A		4CC-4
4	CA_2A-7A			3CC-11	4	CA_2A-2A-71A	2A, 2A-2A		
5	CA_2A-12A	2A		3CC-12	5	CA_2A-4A-4A	2A, 4A, 2A-4A, 4A-4A, 2A-4A-4A		4CC-6
6	CA_2A-46A	2A	B46 SCC Only	3CC-16	6	CA_2A-4A-5A	2A, 4A, 2A-4A		
7	CA_2A-48A	2A-48A		3CC-19	7	CA_2A-4A-7A			
8	CA_2A-66A	2A, 66A, 2A-66A		3CC-21	8	CA_2A-4A-12A	2A, 4A, 2A-4A		4CC-1
9	CA_2A-71A	2A		3CC-22	9	CA_2A-4A-71A	2A, 4A, 2A-4A		4CC-2
10	CA_2C	2C		3CC-26	10	CA_2A-5A-66A	2A, 66A, 2A-66A		
11	CA_4A-4A	4A, 4A-4A		3CC-27	11	CA_2A-7A-7A			
12	CA_4A-5A	4A		3CC-6	12	CA_2A-12A-66A	2A, 66A, 2A-66A		4CC-3
13	CA_4A-7A			3CC-7	13	CA_2A-46A-46A	2A		
14	CA_4A-12A	4A		3CC-8	14	CA_2A-46A-48A	2A-48A		
15	CA_4A-46A	4A	B46 SCC Only	3CC-33	15	CA_2A-46A-66A	2A, 66A, 2A-66A		
16	CA_4A-71A	4A		3CC-9	16	CA_2A-48A-48A	2A-48A-48A		4CC-8
17	CA_5A-7A			3CC-36	17	CA_2A-48A-66A	2A, 48A, 66A, 2A-48A, 2A-66A, 48A-66A, 2A-48A-66A		
18	CA_5A-66A	66A		3CC-10	18	CA_2A-66A-66A	2A, 66A, 2A-66A, 66A-66A, 2A-66A-66A		
19	CA_5B			3CC-37	19	CA_2A-66A-71A	2A, 66A, 2A-66A		
20	CA_7A-7A			3CC-11	20	CA_2A-46C	2A	B46 SCC Only	
21	CA_7A-12A			3CC-32	21	CA_2A-48C	2A		4CC-4
22	CA_7A-32A	7A	B32 SCC Only		22	CA_2A-66C	2A, 66C, 2A-66C		4CC-5
23	CA_7A-46A		B46 SCC Only		23	CA_2C-66A	2C, 66A, 2C-66A		4CC-14
24	CA_7C				24	CA_4A-4A-5A	4A, 4A-4A		
25	CA_12A-66A	66A		3CC-12	25	CA_4A-4A-7A			4CC-11
26	CA_25A-25A	25A,25A-25A		3CC-43	26	CA_4A-4A-12A	4A, 4A-4A		4CC-17
27	CA_25A-26A	25A		3CC-43	27	CA_4A-4A-71A	4A, 4A-4A		
28	CA_25A-41A	25A,41A,25A-41A			28	CA_4A-7A-7A			
29	CA_25A-46A	25A	B46 SCC Only		29	CA_4A-7A-12A			4CC-6
30	CA_26A-41A	41A			30	CA_4A-46A-46A	4A	B46 SCC Only	
31	CA_38C	38C			31	CA_4A-46C	4A	B46 SCC Only	
32	CA_41A-41A	41A,41A-41A			32	CA_5A-7A-7A			
33	CA_41C	41C		3CC-44	33	CA_5B-46A		B46 SCC Only	
34	CA_46A-66A	66A	B46 SCC Only	3CC-48	34	CA_7A-46C		B46 SCC Only	
35	CA_48A-48A	48A, 48A-48A		3CC-51	35	CA_12A-66A-66A	66A, 66A-66A		4CC-7
36	CA_48A-66A	48A, 66A, 48A-66A		3CC-49	36	CA_12A-46C		B46 SCC Only	
37	CA_48C	48C		3CC-24	37	CA_12A-66C	66C		4CC-11
38	CA_66A-66A	66A, 66A-66A		3CC-39	38	CA_13A-66A-66A	66A, 66A-66A		
39	CA_66A-71A	66A		3CC-22	39	CA_25A-25A-26A	25A,25A-25A		
40	CA_66B	66B		3CC-54	40	CA_25A-41C	25A,41C,25A-41C		
41	CA_66C	66C		3CC-60	41	CA_25A-46C	25A	B46 SCC Only	
42	CA_2A-13A	2A		3CC-57	42	CA_41A-41C	41A,41C,41A-41C		
43	CA_4A-13A	4A		3CC-62	43	CA_41D	41D		4CC-21
44	CA_4A-48A	4A, 48A, 4A-48A			44	CA_46A-46A-66A	66A	B46 SCC Only	4CC-8



**FCC SAR TEST REPORT**

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45	CA_5A-46A		B46 SCC Only	3CC-63	45	CA_46A-48A-66A	48A-66A	B46 SCC Only	
46	CA_5A-48A	48A		3CC-72	46	CA_46C-66A	66A	B46 SCC Only	4CC-15
47	CA_5A-5A			3CC-75	47	CA_48A-48A-66A	48A, 66A, 48A-66A, 48A-48A-66A		
48	CA_13A-46A		B46 SCC Only	3CC-57	48	CA_48A-66A-66A	66A, 66A-66A		
49	CA_13A-48A	48A		3CC-58	49	CA_48A-48C	48A, 48C, 48A-48C		
50	CA_13A-66A	66A		3CC-59	50	CA_48A-66B	48A-66B		
					51	CA_48A-66C	48A, 66C, 48A-66C		
					52	CA_48C-66A	48C, 66A, 48C-66A		4CC-28
					53	CA_48D	48D		4CC-29
					54	CA_66A-66A-71A	66A, 66A-66A		4CC-9
					55	CA_66A-66C	66A, 66C, 66A-66C		
					56	CA_66C-71A	66C		4CC-16
					57	CA_2A-13A-46A	2A	B46 SCC Only	
					58	CA_2A-13A-48A	2A, 48A, 2A-48A		
					59	CA_2A-13A-66A	2A, 66A, 2A-66A		
					60	CA_2A-2A-13A	2A, 2A-2A		
					61	CA_2A-2A-5A	2A, 2A-2A		
					62	CA_2A-4A-13A	2A, 4A, 2A-4A		
					63	CA_2A-5A-46A	2A	B46 SCC Only	
					64	CA_2A-5A-48A	2A, 48A, 2A-48A		
					65	CA_2A-5B	2A		
					66	CA_2A-66B	2A, 66B, 2A-66B		4CC-10
					67	CA_4A-48C	4A, 48C, 4A-48C		
					68	CA_4A-4A-13A	4A, 4A-4A		
					69	CA_4A-5B	4A		
					70	CA_5A-46A-66A	66A	B46 SCC Only	
					71	CA_5A-46C		B46 SCC Only	
					72	CA_5A-48A-48A	48A, 48A-48A		
					73	CA_5A-48A-66A	48A, 66A, 48A-66A		
					74	CA_5A-48C	48C		
					75	CA_5A-5A-66A	66A		
					76	CA_5A-66A-66A	66A, 66A-66A		
					77	CA_5A-66B	66B		
					78	CA_5A-66C	66C		
					79	CA_5B-66A	66A		
					80	CA_13A-46A-66A	66A	B46 SCC Only	
					81	CA_13A-46C		B46 SCC Only	
					82	CA_13A-48A-48A	48A, 48A-48A		
					83	CA_13A-48A-66A	48A, 66A, 48A-66A		
					84	CA_13A-48C	48C		
					85	CA_13A-66B	66B		
					86	CA_13A-66C	66C		
					87	CA_66A-66A-66A	66A, 66A-66A, 66A-66A-66A		



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	B46 SCC Only	
2	CA_2A-2A-4A-71A	2A, 4A, 2A-2A, 2A-4A, 2A-2A-4A			2	CA_2A-46A-46D	2A	B46 SCC Only	
3	CA_2A-2A-12A-66A	2A, 66A, 2A-2A, 2A-66A, 2A-2A-66A			3	CA_2A-46A-48D	2A-48D	B46 SCC Only	
4	CA_2A-2A-66A-66A	2A, 66A, 2A-2A, 2A-66A, 2A-2A-66A, 2A-66A-66A			4	CA_2A-46C-46C	2A	B46 SCC Only	
5	CA_2A-2A-66A-71A	2A, 66A, 2A-2A, 2A-66A, 2A-2A-66A			5	CA_2A-46C-48C	2A-48C	B46 SCC Only	
6	CA_2A-4A-4A-12A	2A, 4A, 2A-4A, 2A-4A-4A			6	CA_2A-46D-48A	2A-48A	B46 SCC Only	
7	CA_2A-12A-66A-66A	2A, 66A, 2A-66A, 66A-66A, 2A-66A-66A			7	CA_2A-46D-66A	2A, 66A, 2A-66A	B46 SCC Only	
8	CA_2A-46A-46A-66A	2A, 66A, 2A-66A	B46 SCC Only		8	CA_2A-46E	2A	B46 SCC Only	6CC-1
9	CA_2A-66A-66A-71A	2A, 66A, 2A-66A, 66A-66A, 2A-66A-66A			9	CA_4A-46A-46D	4A	B46 SCC Only	
10	CA_2A-2A-66B	2A, 66B, 2A-2A, 2A-66B, 2A-2A-66B			10	CA_12A-46E		B46 SCC Only	
11	CA_2A-12A-66C	2A, 66C, 2A-66C			11	CA_41C-41D	41C,41D,41C-41D		
12	CA_2A-46A-46C	2A	B46 SCC Only		12	CA_46A-46D-66A	66A	B46 SCC Only	
13	CA_2A-46A-48C	2A-48C	B46 SCC Only		13	CA_46A-48D-66A	48D-66A	B46 SCC Only	
14	CA_2A-46C-48A	2A-48A	B46 SCC Only		14	CA_46C-48C-66A	48C-66A	B46 SCC Only	
15	CA_2A-46C-66A	2A, 66A, 2A-66A	B46 SCC Only		15	CA_46C-48D	48D	B46 SCC Only	
16	CA_2A-66C-71A	2A, 66C, 2A-66C			16	CA_46D-48A-66A	48A-66A	B46 SCC Only	
17	CA_2C-66A-66A	2C, 66A, 2C-66A, 66A-66A, 2C-66A-66A			17	CA_46E-66A	66A	B46 SCC Only	6CC-1
18	CA_2A-46D	2A	B46 SCC Only	5CC-2	18	CA_48E-66A	48E, 66A, 48E-66A		
19	CA_4A-46A-46C	4A	B46 SCC Only		19	CA_48F	48F		
20	CA_4A-46D	4A	B46 SCC Only	5CC-9	20	CA_46C-46C-66A	66A		
21	CA_25A-41D	25A-41D							
22	CA_25A-46D	25A	B46 SCC Only						
23	CA_41A-41D	41A-41D							
24	CA_41C-41C	41C-41C							
25	CA_41E	41E							
26	CA_46A-46C-66A	66A	B46 SCC Only						
27	CA_46A-48C-66A	48C-66A	B46 SCC Only						
28	CA_46C-48A-66A	48A-66A	B46 SCC Only						
29	CA_46A-48D	48D	B46 SCC Only	5CC-13					
30	CA_46D-48A	48A	B46 SCC Only	5CC-16					
31	CA_46D-66A	66A	B46 SCC Only	5CC-12					
32	CA_48D-66A	48D, 66A, 48D-66A		5CC-13					
33	CA_48E	48E		5CC-18					
34	CA_2A-2A-46C	2A, 2A-2A							

6CC Downlink Carrier Aggregation					7CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_2A-46E-66A	2A, 66A, 2A-66A	B46 SCC Only		1	CA_2A-46C-48E	2A	B46 SCC Only	
2	CA_46C-48D-66A	66A	B46 SCC Only		2	CA_46C-48E-66A	66A	B46 SCC Only	
					3	CA_46E-48C-66A	66A, 48C, 66A-48C	B46 SCC Only	



**<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

**<Intra-band>**

**General Note:**

- i. The device supports intra-band uplink carrier aggregation for LTE 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.
- 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-66A
3	2A-12A
4	4A-12A
5	12A-66A
6	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.
- 4. Above note 1 to note 3 is general description, for this device supports Qualcomm Smart transmit for WWAN bands mentioned from page 14 to page 16. About Inter band CA uplink similar to EN-DC, they complied with TX-simultaneously analysis on page 123. For inter band CA uplink, the device supports Smart transmit and complied the Sim-Tx analysis principle mentioned on page 123, no need to sum CA standalone SAR together as inter band CA SAR when perform transmit simultaneously analysis with WLAN/BT.
- 5. The device supports smart transmit and no need to do LTE inter CA summed SAR, although head SAR with higher than 0.8W/Kg, it is standalone SAR with total power, not inter band CA per LTE band standalone SAR. If the LTE standalone SAR co-located with WLAN/BT complied and inter band CA co-located with WLAN/BT will be also complied too.



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

### **General Note:**

1. NR implementation of n71, n5, n66, n25, n2, n7, n77 and n41 also supports SA operations.
2. Following 5G NR n2/n5/n7/n25/n66/n71 support SCS 15KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256 QAM, Bandwidth 5M/10M/15M/20M.
3. Following 5G NR n41 support SCS 30KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256QAM, Bandwidth 20M/30M/40M/50M/80M/90M/100M.
4. Following 5G NR n77 support SCS 30KHz DFT/CP-OFDM, PI/2 BPSK/QPSK/16QAM/64QAM/256QAM, Bandwidth 20M/30M/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			
CP-OFDM	256 QAM		$\leq 2.5$	
	QPSK		$\leq 3$	$\leq 1.5$
	16 QAM	$\leq 3$		$\leq 2$
	64 QAM		$\leq 3.5$	
	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_5B_n2A	DC_5B_n2A	5B	n2A
DC_12A_n2A	DC_12A_n2A	12A	n2A
DC_13A_n2A	DC_13A_n2A	13A	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_66B_n5A	DC_66B_n5A	66B	n5A
DC_66C_n5A	DC_66C_n5A	66C	n5A
DC_48A_n5A	DC_48A_n5A	48A	n5A
DC_12A_n25A	DC_12A_n25A	12A	n25A
DC_66A_n25A	DC_66A_n25A	66A	n25A
DC_2A_n66A	DC_2A_n66A	2A	n66A
DC_5A_n66A	DC_5A_n66A	5A	n66A
DC_5B_n66A	DC_5B_n66A	5B	n66A
DC_12A_n66A	DC_12A_n66A	12A	n66A
DC_13A_n66A	DC_13A_n66A	13A	n66A
DC_48A_n66A	DC_48A_n66A	48A	n66A
DC_2A_n71A	DC_2A_n71A	2A	n71A
DC_2C_n71A	DC_2C_n71A	2C	n71A
DC_66A_n71A	DC_66A_n71A	66A	n71A
DC_66C_n71A	DC_66C_n71A	66C	n71A
DC_2A_n41A	DC_2A_n41A	2A	n41A
DC_2C_n41A	DC_2C_n41A	2C	n41A
DC_66A_n41A	DC_66A_n41A	66A	n41A
DC_7A_n77A	DC_7A_n77A	7A	n77A

DC_13A_n77A	DC_13A_n77A	13A	n77A
DC_5A_n77A	DC_5A_n77A	5A	n77A
DC_66A_n77A	DC_66A_n77A	66A	n77A

Note: For 5G NR n41 supports 2X2 MIMO uplink. 5G NR MIMO total power level is the same as standalone mode.

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

### **General Note:**

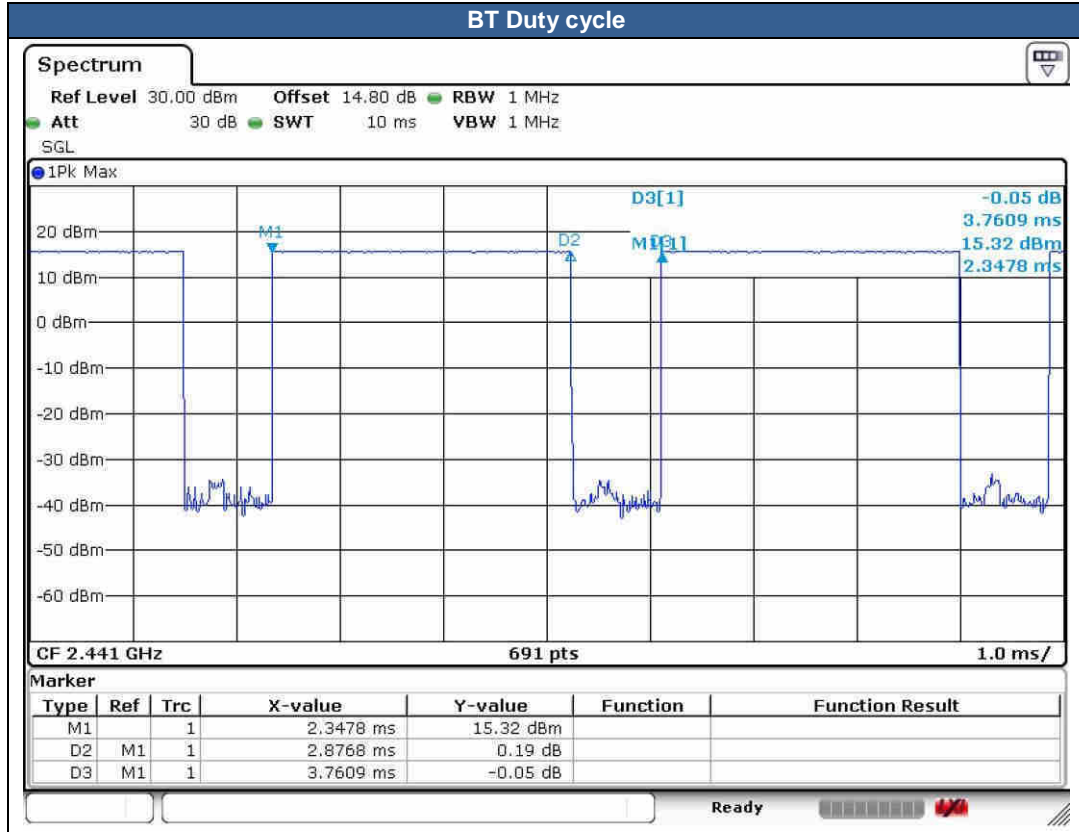
1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. 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
9. 802.11ax full tone and partial tone supported for WLAN2.4GHz/WLAN5GHz, Full power state measured full tone and all partial tone power, partial tone power level is less than full tone power level, we chose full tone power to perform SAR testing. For reduced power level only show full tone power for higher power than partial tone power level.



<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 76.49% as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.





17. ANT+ Exclusions Applied

Mode Band	Max Average power(dBm)
ANT+	-3.70

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:  

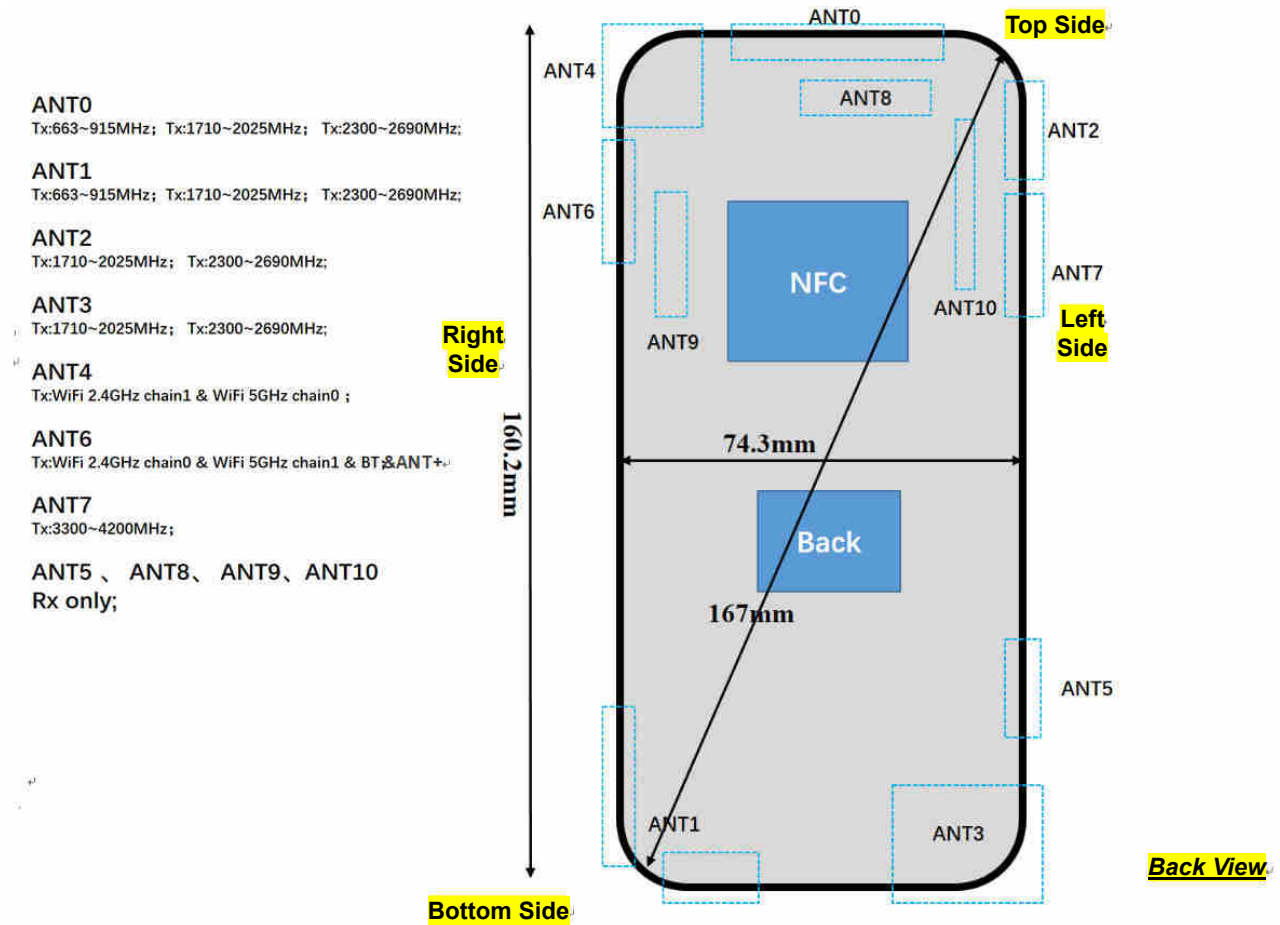
$$[(max. power of channel, including tune-up tolerance, mW)/(min. test separation distance, mm)] \cdot [\sqrt{f(GHz)}] \leq 3.0$$
 for 1-g SAR and ≤ 7.5 for 10-g extremity SAR
  - f(GHz) is the RF channel transmit frequency in GHz
  - Power and distance are rounded to the nearest mW and mm before calculation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

ANT+ Max Power (dBm)	Separation Distance (mm)	Frequency (GHz)	exclusion thresholds
-3.70	< 5	2.48	0.1

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 0.1 which is ≤ 3, SAR testing is not required.

### 18. Antenna Location



Antennas Description	
WWAN UAT	ANT 0/2/7
WWAN LAT	ANT 1/3
WLAN 2.4GHz Antenna 2 & 5GHz Antenna 1	ANT 4
WLAN 2.4GHz Antenna 1 & 5GHz Antenna 2 & BT & Ant+	ANT 6

**General Note:**

1. LTE Band 66/4 ant 0&ant 1 only for LTE inter-band uplink CA
2. LTE Band 66/7 and NR 41/66 ant 0&ant 1 only for EN-DC combination



Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
WWAN UAT ANT0	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm
WWAN UAT ANT2/7	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	>25mm	≤ 25mm
WWAN LAT ANT1	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	>25mm
WWAN LAT ANT3	≤ 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 ANT0	Yes	Yes	Yes	No	Yes	Yes
WWAN UAT ANT2/7	Yes	Yes	Yes	No	No	Yes
WWAN LAT ANT1	Yes	Yes	No	Yes	Yes	No
WWAN LAT ANT3	Yes	Yes	No	Yes	No	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 BT/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: Reported SAR(W/kg)= Measured SAR(W/kg)\*Tune-up Scaling Factor
  - d. For BT/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:
  - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
  - ≤ 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
  - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/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. When the phone is in talking mode and receiver worked, then power reduction will be implemented immediately at Bluetooth.
5. 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. The following power reduction level scenario table used for SAR testing.

WWAN for Head	Power level
WWAN (Standalone)/ WWAN + BT	Reduced Power level 1
WWAN +2.4G WIFI / WWAN +5G WIFI	Reduced Power level 2
WWAN +2.4G WIFI + 5G WIFI / WWAN + 5G WIFI + BT/ WWAN +2.4G Chain1 + 5G WIFI + BT	Reduced Power level 3

WLAN 2.4G	Power level	WLAN 5G	Power level
2.4G(Full)	Full Power	5G(Full)	Full Power
2.4G (Standalone)	Reduced Power level 1	5G (Standalone)	Reduced Power level 1
2.4G Chain1+BT	Reduced Power level 2	5G+BT	Reduced Power level 2
2.4G+WWAN	Reduced Power level 3	5G+WWAN	Reduced Power level 3
2.4G Chain1+WWAN+BT	Reduced Power level 4	5G+WWAN+BT	Reduced Power level 4
2.4G+5G	Reduced Power level 5	2.4G+5G	Reduced Power level 5
2.4G Chain1+5G+BT	Reduced Power level 6	2.4G Chain1+5G+BT	Reduced Power level 6
WWAN+2.4G+5G	Reduced Power level 7	WWAN+2.4G+5G	Reduced Power level 7
WWAN+2.4G Chain1+5G+BT	Reduced Power level 8	WWAN+2.4G Chain1+5G+BT	Reduced Power level 8

6. Per KDB 648474 D04v01r03, when the reported SAR for a body-worn accessory measured without a headset connected to the handset is ≤ 1.2 W/kg, SAR testing with a headset connected to the handset is not required.
7. 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 BC1, LTE B7 / B25 / B30, 5G NR n7/n25/n41 for LAT, LTE B7 / B30 / B41 / B48, 5G NR n7/n25/n41/n66, ENDC LTE B7/B66/5G NR n41/n66 for UAT, and WLAN 5.2GHz is required to be tested.
8. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.

9. 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.
10. 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:  
For LAT:  
Front: [5 mm](#)  
Back: [8 mm](#)  
Bottom side: [7 mm](#)  
For UAT:  
Back: [8 mm](#)  
Top side: [9 mm](#)
11. "n/a" in the result means the SAR cube is too small to be found.
12. UAT means Up Antenna (Top Antenna); LAT means Low Antenna (Bottom Antenna).

**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 (4Tx slots) for GSM850 Top Antenna, GPRS (3Tx slots) for GSM850 Bottom Antenna, GPRS (4Tx slots) for GSM1900 Top Antenna and Bottom Antenna are 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  $\leq \frac{1}{4}$  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  $\leq \frac{1}{4}$  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 (HSUPA, HSDPA, 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+.

**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(4 Tx slots)	Right Cheek	Reduced Power Level 1/2/3	128	824.2	25.53	26.70	1.309	0.05	0.538	0.704
	GSM850_UAT	GPRS(4 Tx slots)	Right Tilted	Reduced Power Level 1/2/3	128	824.2	25.53	26.70	1.309	0.02	0.451	0.590
	GSM850_UAT	GPRS(4 Tx slots)	Left Cheek	Reduced Power Level 1/2/3	128	824.2	25.53	26.70	1.309	-0.06	0.446	0.584
	GSM850_UAT	GPRS(4 Tx slots)	Left Tilted	Reduced Power Level 1/2/3	128	824.2	25.53	26.70	1.309	0.01	0.395	0.517
	GSM850_UAT	GPRS(4 Tx slots)	Right Cheek	Reduced Power Level 1/2/3	189	836.4	25.46	26.70	1.330	0.05	0.677	0.901
01	GSM850_UAT	GPRS(4 Tx slots)	Right Cheek	Reduced Power Level 1/2/3	251	848.8	25.28	26.70	1.387	0.07	0.770	1.068
	GSM850_LAT	GPRS(3 Tx slots)	Right Cheek	Full	128	824.2	28.93	29.80	1.222	-0.17	0.124	0.152
	GSM850_LAT	GPRS(3 Tx slots)	Right Tilted	Full	128	824.2	28.93	29.80	1.222	0.17	0.047	0.057
	GSM850_LAT	GPRS(3 Tx slots)	Left Cheek	Full	128	824.2	28.93	29.80	1.222	0.01	0.076	0.093
	GSM850_LAT	GPRS(3 Tx slots)	Left Tilted	Full	128	824.2	28.93	29.80	1.222	-0.15	0.069	0.084
	GSM850_LAT	GPRS(3 Tx slots)	Right Cheek	Full	189	836.4	28.91	29.80	1.227	0.05	0.107	0.131
	GSM850_LAT	GPRS(3 Tx slots)	Right Cheek	Full	251	848.8	28.92	29.80	1.225	-0.1	0.182	0.223
	GSM1900_UAT	GPRS(4 Tx slots)	Right Cheek	Reduced Power Level 1/2/3	512	1850.2	18.28	20.00	1.486	-0.14	0.514	0.764
	GSM1900_UAT	GPRS(4 Tx slots)	Right Tilted	Reduced Power Level 1/2/3	512	1850.2	18.28	20.00	1.486	-0.15	0.204	0.303
	GSM1900_UAT	GPRS(4 Tx slots)	Left Cheek	Reduced Power Level 1/2/3	512	1850.2	18.28	20.00	1.486	0.08	0.199	0.296
	GSM1900_UAT	GPRS(4 Tx slots)	Left Tilted	Reduced Power Level 1/2/3	512	1850.2	18.28	20.00	1.486	-0.11	0.154	0.229
	GSM1900_UAT	GPRS(4 Tx slots)	Right Cheek	Reduced Power Level 1/2/3	661	1880	18.25	20.00	1.496	-0.09	0.605	0.905
02	GSM1900_UAT	GPRS(4 Tx slots)	Right Cheek	Reduced Power Level 1/2/3	810	1909.8	18.08	20.00	1.556	-0.04	0.616	0.958
	GSM1900_LAT	GPRS(4 Tx slots)	Right Cheek	Full	512	1850.2	25.17	25.80	1.156	0.1	0.074	0.085
	GSM1900_LAT	GPRS(4 Tx slots)	Right Tilted	Full	512	1850.2	25.17	25.80	1.156	0.12	0.048	0.055
	GSM1900_LAT	GPRS(4 Tx slots)	Left Cheek	Full	512	1850.2	25.17	25.80	1.156	-0.02	0.067	0.077
	GSM1900_LAT	GPRS(4 Tx slots)	Left Tilted	Full	512	1850.2	25.17	25.80	1.156	0.1	0.039	0.045
	GSM1900_LAT	GPRS(4 Tx slots)	Right Cheek	Full	661	1880	25.08	25.80	1.180	0.04	0.104	0.123
	GSM1900_LAT	GPRS(4 Tx slots)	Right Cheek	Full	810	1909.8	25.02	25.80	1.197	0.01	0.128	0.153



<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)
03	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1	4182	836.4	22.65	23.50	1.216	0.05	0.966	1.175
	WCDMA V_UAT	RMC 12.2Kbps	Right Tilted	Reduced Power Level 1	4182	836.4	22.65	23.50	1.216	0.01	0.785	0.955
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	Reduced Power Level 1	4182	836.4	22.65	23.50	1.216	0.19	0.729	0.887
	WCDMA V_UAT	RMC 12.2Kbps	Left Tilted	Reduced Power Level 1	4182	836.4	22.65	23.50	1.216	-0.07	0.676	0.822
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1	4132	826.4	22.53	23.50	1.250	-0.1	0.872	1.090
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1	4233	846.6	22.55	23.50	1.245	-0.09	0.900	1.120
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 2/3	4182	836.4	21.27	22.20	1.239	0.14	0.681	0.844
	WCDMA V_UAT	RMC 12.2Kbps	Right Tilted	Reduced Power Level 2/3	4182	836.4	21.27	22.20	1.239	0.09	0.610	0.756
	WCDMA V_UAT	RMC 12.2Kbps	Left Cheek	Reduced Power Level 2/3	4182	836.4	21.27	22.20	1.239	0.06	0.482	0.597
	WCDMA V_UAT	RMC 12.2Kbps	Left Tilted	Reduced Power Level 2/3	4182	836.4	21.27	22.20	1.239	-0.05	0.441	0.546
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 2/3	4132	826.4	21.13	22.20	1.279	0.03	0.622	0.796
	WCDMA V_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 2/3	4233	846.6	21.25	22.20	1.245	-0.09	0.712	0.886
	WCDMA V_LAT	RMC 12.2Kbps	Right Cheek	Full	4182	836.4	24.49	24.80	1.074	-0.05	0.218	0.234
	WCDMA V_LAT	RMC 12.2Kbps	Right Tilted	Full	4182	836.4	24.49	24.80	1.074	0.15	0.099	0.107
	WCDMA V_LAT	RMC 12.2Kbps	Left Cheek	Full	4182	836.4	24.49	24.80	1.074	-0.12	0.167	0.179
	WCDMA V_LAT	RMC 12.2Kbps	Left Tilted	Full	4182	836.4	24.49	24.80	1.074	0.17	0.091	0.098
	WCDMA V_LAT	RMC 12.2Kbps	Right Cheek	Full	4132	826.4	24.47	24.80	1.079	0.03	0.194	0.209
	WCDMA V_LAT	RMC 12.2Kbps	Right Cheek	Full	4233	846.6	24.41	24.80	1.094	0.14	0.245	0.268
	WCDMA IV_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1/2/3	1413	1732.6	18.26	19.00	1.186	0.1	0.766	0.908
	WCDMA IV_UAT	RMC 12.2Kbps	Right Tilted	Reduced Power Level 1/2/3	1413	1732.6	18.26	19.00	1.186	-0.04	0.269	0.319
	WCDMA IV_UAT	RMC 12.2Kbps	Left Cheek	Reduced Power Level 1/2/3	1413	1732.6	18.26	19.00	1.186	0.03	0.265	0.314
	WCDMA IV_UAT	RMC 12.2Kbps	Left Tilted	Reduced Power Level 1/2/3	1413	1732.6	18.26	19.00	1.186	-0.01	0.154	0.183
	WCDMA IV_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1/2/3	1312	1712.4	18.06	19.00	1.242	-0.14	0.663	0.823
04	WCDMA IV_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1/2/3	1513	1752.6	18.18	19.00	1.208	0.07	0.871	1.052
	WCDMA IV_LAT	RMC 12.2Kbps	Right Cheek	Full	1413	1732.6	24.48	24.80	1.076	0.09	0.206	0.222
	WCDMA IV_LAT	RMC 12.2Kbps	Right Tilted	Full	1413	1732.6	24.48	24.80	1.076	0.06	0.132	0.142
	WCDMA IV_LAT	RMC 12.2Kbps	Left Cheek	Full	1413	1732.6	24.48	24.80	1.076	0.12	0.196	0.211
	WCDMA IV_LAT	RMC 12.2Kbps	Left Tilted	Full	1413	1732.6	24.48	24.80	1.076	0.13	0.129	0.139
	WCDMA IV_LAT	RMC 12.2Kbps	Right Cheek	Full	1312	1712.4	24.41	24.80	1.094	0.05	0.169	0.185
	WCDMA IV_LAT	RMC 12.2Kbps	Right Cheek	Full	1513	1752.6	24.38	24.80	1.102	0.16	0.202	0.223
	WCDMA II_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1/2/3	9400	1880	17.42	18.50	1.282	-0.01	0.798	1.023
	WCDMA II_UAT	RMC 12.2Kbps	Right Tilted	Reduced Power Level 1/2/3	9400	1880	17.42	18.50	1.282	0.06	0.271	0.348
	WCDMA II_UAT	RMC 12.2Kbps	Left Cheek	Reduced Power Level 1/2/3	9400	1880	17.42	18.50	1.282	0.16	0.263	0.337
	WCDMA II_UAT	RMC 12.2Kbps	Left Tilted	Reduced Power Level 1/2/3	9400	1880	17.42	18.50	1.282	0.13	0.177	0.227
05	WCDMA II_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1/2/3	9262	1852.4	17.30	18.50	1.318	0.03	0.844	1.113
	WCDMA II_UAT	RMC 12.2Kbps	Right Cheek	Reduced Power Level 1/2/3	9538	1907.6	17.36	18.50	1.300	-0.19	0.847	1.101
	WCDMA II_LAT	RMC 12.2Kbps	Right Cheek	Full	9400	1880	24.38	24.80	1.102	0.05	0.226	0.249
	WCDMA II_LAT	RMC 12.2Kbps	Right Tilted	Full	9400	1880	24.38	24.80	1.102	0.02	0.132	0.145
	WCDMA II_LAT	RMC 12.2Kbps	Left Cheek	Full	9400	1880	24.38	24.80	1.102	0.01	0.225	0.248
	WCDMA II_LAT	RMC 12.2Kbps	Left Tilted	Full	9400	1880	24.38	24.80	1.102	-0.15	0.207	0.228
	WCDMA II_LAT	RMC 12.2Kbps	Right Cheek	Full	9262	1852.4	24.36	24.80	1.107	0.19	0.189	0.209
	WCDMA II_LAT	RMC 12.2Kbps	Right Cheek	Full	9538	1907.6	24.35	24.80	1.109	-0.14	0.209	0.232



<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)
06	CDMA2000 BC10_UAT	RC3 SO55	Right Cheek	Full	476	817.9	23.96	24.70	1.186	-0.07	0.999	<b>1.185</b>
	CDMA2000 BC10_UAT	RC3 SO55	Right Tilted	Full	476	817.9	23.96	24.70	1.186	0.1	0.778	0.923
	CDMA2000 BC10_UAT	RC3 SO55	Left Cheek	Full	476	817.9	23.96	24.70	1.186	-0.07	0.688	0.816
	CDMA2000 BC10_UAT	RC3 SO55	Left Tilted	Full	476	817.9	23.96	24.70	1.186	0.04	0.653	0.774
	CDMA2000 BC10_UAT	RC3 SO55	Right Cheek	Full	580	820.5	23.91	24.70	1.199	0.14	0.918	1.101
	CDMA2000 BC10_UAT	RC3 SO55	Right Cheek	Full	684	823.1	23.87	24.70	1.211	0.08	0.880	1.065
	CDMA2000 BC10_UAT	RC3 SO55	Right Cheek	Reduced Power Level 2/3	476	817.9	23.58	24.50	1.236	-0.17	0.733	0.906
	CDMA2000 BC10_UAT	RC3 SO55	Right Tilted	Reduced Power Level 2/3	476	817.9	23.58	24.50	1.236	0.15	0.602	0.744
	CDMA2000 BC10_UAT	RC3 SO55	Left Cheek	Reduced Power Level 2/3	476	817.9	23.58	24.50	1.236	-0.19	0.498	0.616
	CDMA2000 BC10_UAT	RC3 SO55	Left Tilted	Reduced Power Level 2/3	476	817.9	23.58	24.50	1.236	-0.15	0.462	0.571
	CDMA2000 BC10_UAT	RC3 SO55	Right Cheek	Reduced Power Level 2/3	580	820.5	23.55	24.50	1.245	-0.06	0.692	0.861
	CDMA2000 BC10_UAT	RC3 SO55	Right Cheek	Reduced Power Level 2/3	684	823.1	23.51	24.50	1.256	-0.01	0.683	0.858
	CDMA2000 BC10_LAT	RC3 SO55	Right Cheek	Full	476	817.9	23.87	24.80	1.239	0.08	0.164	0.203
	CDMA2000 BC10_LAT	RC3 SO55	Right Tilted	Full	476	817.9	23.87	24.80	1.239	-0.09	0.084	0.104
	CDMA2000 BC10_LAT	RC3 SO55	Left Cheek	Full	476	817.9	23.87	24.80	1.239	-0.14	0.131	0.162
	CDMA2000 BC10_LAT	RC3 SO55	Left Tilted	Full	476	817.9	23.87	24.80	1.239	-0.19	0.070	0.087
	CDMA2000 BC10_LAT	RC3 SO55	Right Cheek	Full	580	820.5	23.81	24.80	1.256	-0.08	0.180	0.226
	CDMA2000 BC10_LAT	RC3 SO55	Right Cheek	Full	684	823.1	23.74	24.80	1.276	-0.07	0.162	0.207
	CDMA2000 BC0_UAT	RC3 SO55	Right Cheek	Reduced Power Level 1	384	836.52	23.43	24.50	1.279	-0.12	0.891	1.140
	CDMA2000 BC0_UAT	RC3 SO55	Right Tilted	Reduced Power Level 1	384	836.52	23.43	24.50	1.279	-0.04	0.716	0.916
	CDMA2000 BC0_UAT	RC3 SO55	Left Cheek	Reduced Power Level 1	384	836.52	23.43	24.50	1.279	-0.16	0.633	0.810
	CDMA2000 BC0_UAT	RC3 SO55	Left Tilted	Reduced Power Level 1	384	836.52	23.43	24.50	1.279	0.18	0.551	0.705
	CDMA2000 BC0_UAT	RC3 SO55	Right Cheek	Reduced Power Level 1	1013	824.7	23.36	24.50	1.300	-0.05	0.807	1.049
07	CDMA2000 BC0_UAT	RC3 SO55	Right Cheek	Reduced Power Level 1	777	848.31	23.39	24.50	1.291	0.11	0.926	<b>1.196</b>
	CDMA2000 BC0_UAT	RC3 SO55	Right Cheek	Reduced Power Level 2/3	384	836.52	21.96	23.00	1.271	0.01	0.598	0.760
	CDMA2000 BC0_UAT	RC3 SO55	Right Tilted	Reduced Power Level 2/3	384	836.52	21.96	23.00	1.271	0.17	0.495	0.629
	CDMA2000 BC0_UAT	RC3 SO55	Left Cheek	Reduced Power Level 2/3	384	836.52	21.96	23.00	1.271	-0.13	0.436	0.554
	CDMA2000 BC0_UAT	RC3 SO55	Left Tilted	Reduced Power Level 2/3	384	836.52	21.96	23.00	1.271	0.09	0.379	0.482
	CDMA2000 BC0_UAT	RC3 SO55	Right Cheek	Reduced Power Level 2/3	1013	824.7	21.87	23.00	1.297	0.13	0.535	0.694
	CDMA2000 BC0_UAT	RC3 SO55	Right Cheek	Reduced Power Level 2/3	777	848.31	21.90	23.00	1.288	0.02	0.632	0.814
	CDMA2000 BC0_LAT	RC3 SO55	Right Cheek	Full	384	836.52	23.70	24.80	1.288	0.16	0.175	0.225
	CDMA2000 BC0_LAT	RC3 SO55	Right Tilted	Full	384	836.52	23.70	24.80	1.288	-0.17	0.080	0.102
	CDMA2000 BC0_LAT	RC3 SO55	Left Cheek	Full	384	836.52	23.70	24.80	1.288	0.16	0.143	0.184
	CDMA2000 BC0_LAT	RC3 SO55	Left Tilted	Full	384	836.52	23.70	24.80	1.288	0.07	0.073	0.094
	CDMA2000 BC0_LAT	RC3 SO55	Right Cheek	Full	1013	824.7	23.67	24.80	1.297	0.07	0.186	0.241
	CDMA2000 BC0_LAT	RC3 SO55	Right Cheek	Full	777	848.31	23.30	24.80	1.413	0.04	0.171	0.242
	CDMA2000 BC1_UAT	RC3 SO55	Right Cheek	Reduced Power Level 1/2/3	600	1880	17.56	18.50	1.242	0.17	0.538	0.668
	CDMA2000 BC1_UAT	RC3 SO55	Right Tilted	Reduced Power Level 1/2/3	600	1880	17.56	18.50	1.242	0.13	0.186	0.231
	CDMA2000 BC1_UAT	RC3 SO55	Left Cheek	Reduced Power Level 1/2/3	600	1880	17.56	18.50	1.242	0.15	0.173	0.215
	CDMA2000 BC1_UAT	RC3 SO55	Left Tilted	Reduced Power Level 1/2/3	600	1880	17.56	18.50	1.242	0.19	0.133	0.165
	CDMA2000 BC1_UAT	RC3 SO55	Right Cheek	Reduced Power Level 1/2/3	25	1851.25	17.49	18.50	1.262	-0.14	0.603	0.761
08	CDMA2000 BC1_UAT	RC3 SO55	Right Cheek	Reduced Power Level 1/2/3	1175	1908.75	17.52	18.50	1.253	0.07	0.860	<b>1.078</b>
	CDMA2000 BC1_LAT	RC3 SO55	Right Cheek	Full	600	1880	23.68	24.80	1.294	0.02	0.246	0.318
	CDMA2000 BC1_LAT	RC3 SO55	Right Tilted	Full	600	1880	23.68	24.80	1.294	-0.18	0.177	0.229
	CDMA2000 BC1_LAT	RC3 SO55	Left Cheek	Full	600	1880	23.68	24.80	1.294	-0.04	0.203	0.263
	CDMA2000 BC1_LAT	RC3 SO55	Left Tilted	Full	600	1880	23.68	24.80	1.294	0.19	0.124	0.160
	CDMA2000 BC1_LAT	RC3 SO55	Right Cheek	Full	25	1851.25	23.67	24.80	1.297	-0.03	0.236	0.306
	CDMA2000 BC1_LAT	RC3 SO55	Right Cheek	Full	1175	1908.75	23.40	24.80	1.380	-0.14	0.271	0.374

<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)
09	LTE Band 71_UAT	20M	QPSK	1	0	Right Cheek	Full	133322	683	23.59	24.80	1.321	0.07	0.786	1.039
	LTE Band 71_UAT	20M	QPSK	1	0	Right Tilted	Full	133322	683	23.59	24.80	1.321	0.02	0.626	0.827
	LTE Band 71_UAT	20M	QPSK	1	0	Left Cheek	Full	133322	683	23.59	24.80	1.321	-0.15	0.467	0.617
	LTE Band 71_UAT	20M	QPSK	1	0	Left Tilted	Full	133322	683	23.59	24.80	1.321	-0.18	0.449	0.593
	LTE Band 71_UAT	20M	QPSK	50	24	Right Cheek	Full	133322	683	22.48	23.80	1.355	-0.12	0.604	0.819
	LTE Band 71_UAT	20M	QPSK	50	24	Right Tilted	Full	133322	683	22.48	23.80	1.355	0.16	0.475	0.644
	LTE Band 71_UAT	20M	QPSK	50	24	Left Cheek	Full	133322	683	22.48	23.80	1.355	0.03	0.370	0.501
	LTE Band 71_UAT	20M	QPSK	50	24	Left Tilted	Full	133322	683	22.48	23.80	1.355	-0.13	0.341	0.462
	LTE Band 71_UAT	20M	QPSK	100	0	Right Cheek	Full	133322	683	22.45	23.80	1.365	0.06	0.597	0.815
	LTE Band 71_LAT	20M	QPSK	1	0	Right Cheek	Full	133322	683	23.61	24.80	1.315	-0.08	0.126	0.166
	LTE Band 71_LAT	20M	QPSK	1	0	Right Tilted	Full	133322	683	23.61	24.80	1.315	-0.15	0.046	0.061
	LTE Band 71_LAT	20M	QPSK	1	0	Left Cheek	Full	133322	683	23.61	24.80	1.315	-0.17	0.086	0.113
	LTE Band 71_LAT	20M	QPSK	1	0	Left Tilted	Full	133322	683	23.61	24.80	1.315	-0.08	0.057	0.075
	LTE Band 71_LAT	20M	QPSK	50	24	Right Cheek	Full	133322	683	22.66	23.80	1.300	0.18	0.102	0.133
	LTE Band 71_LAT	20M	QPSK	50	24	Right Tilted	Full	133322	683	22.66	23.80	1.300	0.06	0.046	0.060
	LTE Band 71_LAT	20M	QPSK	50	24	Left Cheek	Full	133322	683	22.66	23.80	1.300	0.11	0.071	0.092
	LTE Band 71_LAT	20M	QPSK	50	24	Left Tilted	Full	133322	683	22.66	23.80	1.300	-0.19	0.051	0.067
10	LTE Band 12_UAT	10M	QPSK	1	49	Right Cheek	Full	23095	707.5	23.71	24.80	1.285	0.05	0.862	1.108
	LTE Band 12_UAT	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	23.71	24.80	1.285	-0.09	0.798	1.026
	LTE Band 12_UAT	10M	QPSK	1	49	Left Cheek	Full	23095	707.5	23.71	24.80	1.285	0.02	0.620	0.797
	LTE Band 12_UAT	10M	QPSK	1	49	Left Tilted	Full	23095	707.5	23.71	24.80	1.285	-0.04	0.590	0.758
	LTE Band 12_UAT	10M	QPSK	25	25	Right Cheek	Full	23095	707.5	22.84	23.80	1.247	-0.05	0.728	0.908
	LTE Band 12_UAT	10M	QPSK	25	25	Right Tilted	Full	23095	707.5	22.84	23.80	1.247	0.03	0.680	0.848
	LTE Band 12_UAT	10M	QPSK	25	25	Left Cheek	Full	23095	707.5	22.84	23.80	1.247	-0.08	0.515	0.642
	LTE Band 12_UAT	10M	QPSK	25	25	Left Tilted	Full	23095	707.5	22.84	23.80	1.247	-0.14	0.472	0.589
	LTE Band 12_UAT	10M	QPSK	50	0	Right Cheek	Full	23095	707.5	22.85	23.80	1.245	-0.11	0.731	0.910
	LTE Band 12_UAT	10M	QPSK	50	0	Right Tilted	Full	23095	707.5	22.85	23.80	1.245	-0.16	0.677	0.843
	LTE Band 12_UAT	10M	QPSK	1	49	Right Cheek	Reduced Power Level 2/3	23095	707.5	22.65	23.70	1.274	0.14	0.736	0.937
	LTE Band 12_UAT	10M	QPSK	1	49	Right Tilted	Reduced Power Level 2/3	23095	707.5	22.65	23.70	1.274	0.04	0.614	0.782
	LTE Band 12_UAT	10M	QPSK	1	49	Left Cheek	Reduced Power Level 2/3	23095	707.5	22.65	23.70	1.274	0.11	0.473	0.602
	LTE Band 12_UAT	10M	QPSK	1	49	Left Tilted	Reduced Power Level 2/3	23095	707.5	22.65	23.70	1.274	-0.1	0.435	0.554
	LTE Band 12_UAT	10M	QPSK	25	25	Right Cheek	Reduced Power Level 2/3	23095	707.5	22.63	23.70	1.279	-0.08	0.743	0.951
	LTE Band 12_UAT	10M	QPSK	25	25	Right Tilted	Reduced Power Level 2/3	23095	707.5	22.63	23.70	1.279	0.09	0.639	0.818
	LTE Band 12_UAT	10M	QPSK	25	25	Left Cheek	Reduced Power Level 2/3	23095	707.5	22.63	23.70	1.279	0.1	0.481	0.615
	LTE Band 12_UAT	10M	QPSK	25	25	Left Tilted	Reduced Power Level 2/3	23095	707.5	22.63	23.70	1.279	-0.12	0.442	0.565
	LTE Band 12_UAT	10M	QPSK	50	0	Right Cheek	Reduced Power Level 2/3	23095	707.5	22.61	23.70	1.285	0.03	0.650	0.835
	LTE Band 12_LAT	10M	QPSK	1	49	Right Cheek	Full	23095	707.5	23.75	24.80	1.274	0.02	0.156	0.199
	LTE Band 12_LAT	10M	QPSK	1	49	Right Tilted	Full	23095	707.5	23.75	24.80	1.274	-0.16	0.061	0.077
	LTE Band 12_LAT	10M	QPSK	1	49	Left Cheek	Full	23095	707.5	23.75	24.80	1.274	0.02	0.113	0.144
	LTE Band 12_LAT	10M	QPSK	1	49	Left Tilted	Full	23095	707.5	23.75	24.80	1.274	-0.02	0.052	0.066
	LTE Band 12_LAT	10M	QPSK	25	25	Right Cheek	Full	23095	707.5	22.87	23.80	1.239	0.03	0.128	0.159
	LTE Band 12_LAT	10M	QPSK	25	25	Right Tilted	Full	23095	707.5	22.87	23.80	1.239	-0.13	0.051	0.063
	LTE Band 12_LAT	10M	QPSK	25	25	Left Cheek	Full	23095	707.5	22.87	23.80	1.239	0	0.093	0.115
	LTE Band 12_LAT	10M	QPSK	25	25	Left Tilted	Full	23095	707.5	22.87	23.80	1.239	-0.18	0.045	0.056





FCC SAR TEST REPORT

Report No. : FA002801-07

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, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg)



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	23.41	24.50	1.285	-0.19	0.867	1.114
	LTE Band 26_UAT	15M	QPSK	1	0	Right Tilted	Reduced Power Level 1	26965	841.5	23.41	24.50	1.285	-0.18	0.742	0.954
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	Reduced Power Level 1	26965	841.5	23.41	24.50	1.285	-0.16	0.715	0.919
	LTE Band 26_UAT	15M	QPSK	1	0	Left Tilted	Reduced Power Level 1	26965	841.5	23.41	24.50	1.285	-0.06	0.661	0.850
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	Reduced Power Level 1	26765	821.5	23.33	24.50	1.309	-0.06	0.822	1.076
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	Reduced Power Level 1	26865	831.5	23.39	24.50	1.291	0.12	0.858	1.108
	LTE Band 26_UAT	15M	QPSK	1	0	Right Tilted	Reduced Power Level 1	26765	821.5	23.33	24.50	1.309	0.03	0.685	0.897
	LTE Band 26_UAT	15M	QPSK	1	0	Right Tilted	Reduced Power Level 1	26865	831.5	23.39	24.50	1.291	0.08	0.713	0.921
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	Reduced Power Level 1	26765	821.5	23.33	24.50	1.309	0.08	0.652	0.854
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	Reduced Power Level 1	26865	831.5	23.39	24.50	1.291	0.16	0.643	0.830
	LTE Band 26_UAT	15M	QPSK	1	0	Left Tilted	Reduced Power Level 1	26765	821.5	23.33	24.50	1.309	-0.08	0.553	0.724
	LTE Band 26_UAT	15M	QPSK	1	0	Left Tilted	Reduced Power Level 1	26865	831.5	23.39	24.50	1.291	0.17	0.565	0.730
13	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	Reduced Power Level 1	26965	841.5	22.89	24.00	1.291	0.07	0.899	1.161
	LTE Band 26_UAT	15M	QPSK	36	20	Right Tilted	Reduced Power Level 1	26965	841.5	22.89	24.00	1.291	-0.19	0.771	0.996
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	Reduced Power Level 1	26965	841.5	22.89	24.00	1.291	-0.11	0.742	0.958
	LTE Band 26_UAT	15M	QPSK	36	20	Left Tilted	Reduced Power Level 1	26965	841.5	22.89	24.00	1.291	-0.07	0.676	0.873
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	Reduced Power Level 1	26765	821.5	22.85	24.00	1.303	-0.15	0.841	1.096
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	Reduced Power Level 1	26865	831.5	22.87	24.00	1.297	0.13	0.876	1.136
	LTE Band 26_UAT	15M	QPSK	36	20	Right Tilted	Reduced Power Level 1	26765	821.5	22.85	24.00	1.303	0.14	0.695	0.906
	LTE Band 26_UAT	15M	QPSK	36	20	Right Tilted	Reduced Power Level 1	26865	831.5	22.87	24.00	1.297	0.13	0.722	0.937
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	Reduced Power Level 1	26765	821.5	22.85	24.00	1.303	-0.18	0.673	0.877
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	Reduced Power Level 1	26865	831.5	22.87	24.00	1.297	-0.1	0.662	0.859
	LTE Band 26_UAT	15M	QPSK	36	20	Left Tilted	Reduced Power Level 1	26765	821.5	22.85	24.00	1.303	0.04	0.567	0.739
	LTE Band 26_UAT	15M	QPSK	36	20	Left Tilted	Reduced Power Level 1	26865	831.5	22.87	24.00	1.297	-0.17	0.583	0.756
	LTE Band 26_UAT	15M	QPSK	75	0	Right Cheek	Reduced Power Level 1	26965	841.5	22.86	24.00	1.300	-0.12	0.889	1.156
	LTE Band 26_UAT	15M	QPSK	75	0	Right Tilted	Reduced Power Level 1	26965	841.5	22.86	24.00	1.300	0.09	0.747	0.971
	LTE Band 26_UAT	15M	QPSK	75	0	Left Cheek	Reduced Power Level 1	26965	841.5	22.86	24.00	1.300	0.03	0.735	0.956
	LTE Band 26_UAT	15M	QPSK	75	0	Left Tilted	Reduced Power Level 1	26965	841.5	22.86	24.00	1.300	-0.14	0.658	0.856
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	Reduced Power Level 2/3	26965	841.5	21.37	22.50	1.297	-0.14	0.638	0.828
	LTE Band 26_UAT	15M	QPSK	1	0	Right Tilted	Reduced Power Level 2/3	26965	841.5	21.37	22.50	1.297	-0.19	0.525	0.681
	LTE Band 26_UAT	15M	QPSK	1	0	Left Cheek	Reduced Power Level 2/3	26965	841.5	21.37	22.50	1.297	-0.03	0.473	0.614
	LTE Band 26_UAT	15M	QPSK	1	0	Left Tilted	Reduced Power Level 2/3	26965	841.5	21.37	22.50	1.297	0	0.439	0.569
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	Reduced Power Level 2/3	26765	821.5	21.31	22.50	1.315	-0.1	0.566	0.744
	LTE Band 26_UAT	15M	QPSK	1	0	Right Cheek	Reduced Power Level 2/3	26865	831.5	21.29	22.50	1.321	0.1	0.591	0.781
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	Reduced Power Level 2/3	26965	841.5	21.35	22.50	1.303	-0.01	0.655	0.854
	LTE Band 26_UAT	15M	QPSK	36	20	Right Tilted	Reduced Power Level 2/3	26965	841.5	21.35	22.50	1.303	0.06	0.543	0.708
	LTE Band 26_UAT	15M	QPSK	36	20	Left Cheek	Reduced Power Level 2/3	26965	841.5	21.35	22.50	1.303	0.11	0.485	0.632
	LTE Band 26_UAT	15M	QPSK	36	20	Left Tilted	Reduced Power Level 2/3	26965	841.5	21.35	22.50	1.303	-0.17	0.443	0.577
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	Reduced Power Level 2/3	26765	821.5	21.29	22.50	1.321	0.08	0.582	0.769
	LTE Band 26_UAT	15M	QPSK	36	20	Right Cheek	Reduced Power Level 2/3	26865	831.5	21.27	22.50	1.327	-0.11	0.602	0.799
	LTE Band 26_UAT	15M	QPSK	75	0	Right Cheek	Reduced Power Level 2/3	26965	841.5	21.32	22.50	1.312	-0.07	0.629	0.825
	LTE Band 26_LAT	15M	QPSK	1	0	Right Cheek	Full	26965	841.5	23.69	24.80	1.291	0.11	0.161	0.208
	LTE Band 26_LAT	15M	QPSK	1	0	Right Tilted	Full	26965	841.5	23.69	24.80	1.291	0.1	0.074	0.096
	LTE Band 26_LAT	15M	QPSK	1	0	Left Cheek	Full	26965	841.5	23.69	24.80	1.291	0.17	0.149	0.192
	LTE Band 26_LAT	15M	QPSK	1	0	Left Tilted	Full	26965	841.5	23.69	24.80	1.291	-0.1	0.062	0.081
	LTE Band 26_LAT	15M	QPSK	1	0	Right Cheek	Full	26765	821.5	23.65	24.80	1.303	-0.04	0.173	0.225
	LTE Band 26_LAT	15M	QPSK	1	0	Right Cheek	Full	26865	831.5	23.56	24.80	1.330	-0.02	0.177	0.235
	LTE Band 26_LAT	15M	QPSK	36	20	Right Cheek	Full	26965	841.5	22.77	23.80	1.268	0.01	0.140	0.177
	LTE Band 26_LAT	15M	QPSK	36	20	Right Tilted	Full	26965	841.5	22.77	23.80	1.268	-0.13	0.064	0.082
	LTE Band 26_LAT	15M	QPSK	36	20	Left Cheek	Full	26965	841.5	22.77	23.80	1.268	-0.16	0.103	0.131
	LTE Band 26_LAT	15M	QPSK	36	20	Left Tilted	Full	26965	841.5	22.77	23.80	1.268	0.06	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 66_UAT	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	132322	1745	18.02	19.00	1.253	0.1	0.737	0.924
	LTE Band 66_UAT	20M	QPSK	1	0	Right Tilted	Reduced Power Level 1/2/3	132322	1745	18.02	19.00	1.253	0.02	0.238	0.298
	LTE Band 66_UAT	20M	QPSK	1	0	Left Cheek	Reduced Power Level 1/2/3	132322	1745	18.02	19.00	1.253	-0.14	0.162	0.203
	LTE Band 66_UAT	20M	QPSK	1	0	Left Tilted	Reduced Power Level 1/2/3	132322	1745	18.02	19.00	1.253	0.09	0.107	0.134
	LTE Band 66_UAT	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	132072	1720	17.87	19.00	1.297	0.08	0.442	0.573
	LTE Band 66_UAT	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	132572	1770	18.00	19.00	1.259	-0.06	0.780	0.982
	LTE Band 66_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	132322	1745	18.00	19.00	1.259	0.14	0.763	0.961
	LTE Band 66_UAT	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	132322	1745	18.00	19.00	1.259	-0.17	0.259	0.326
	LTE Band 66_UAT	20M	QPSK	50	24	Left Cheek	Reduced Power Level 1/2/3	132322	1745	18.00	19.00	1.259	0.15	0.170	0.214
	LTE Band 66_UAT	20M	QPSK	50	24	Left Tilted	Reduced Power Level 1/2/3	132322	1745	18.00	19.00	1.259	-0.17	0.109	0.137
	LTE Band 66_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	132072	1720	17.85	19.00	1.303	-0.03	0.465	0.606
14	LTE Band 66_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	132572	1770	17.97	19.00	1.268	0.03	0.805	1.020
	LTE Band 66_UAT	20M	QPSK	100	0	Right Cheek	Reduced Power Level 1/2/3	132322	1745	17.97	19.00	1.268	-0.06	0.774	0.981
	LTE Band 66_LAT	20M	QPSK	1	0	Right Cheek	Full	132322	1745	24.00	24.80	1.202	0.1	0.183	0.220
	LTE Band 66_LAT	20M	QPSK	1	0	Right Tilted	Full	132322	1745	24.00	24.80	1.202	0.02	0.117	0.141
	LTE Band 66_LAT	20M	QPSK	1	0	Left Cheek	Full	132322	1745	24.00	24.80	1.202	0.05	0.182	0.219
	LTE Band 66_LAT	20M	QPSK	1	0	Left Tilted	Full	132322	1745	24.00	24.80	1.202	-0.07	0.116	0.139
	LTE Band 66_LAT	20M	QPSK	1	0	Right Cheek	Full	132072	1720	23.83	24.80	1.250	-0.08	0.097	0.121
	LTE Band 66_LAT	20M	QPSK	1	0	Right Cheek	Full	132572	1770	23.91	24.80	1.227	-0.09	0.159	0.195
	LTE Band 66_LAT	20M	QPSK	50	24	Right Cheek	Full	132322	1745	23.02	23.80	1.197	-0.12	0.135	0.162
	LTE Band 66_LAT	20M	QPSK	50	24	Right Tilted	Full	132322	1745	23.02	23.80	1.197	0.11	0.091	0.109
	LTE Band 66_LAT	20M	QPSK	50	24	Left Cheek	Full	132322	1745	23.02	23.80	1.197	0.03	0.157	0.188
	LTE Band 66_LAT	20M	QPSK	50	24	Left Tilted	Full	132322	1745	23.02	23.80	1.197	0.03	0.099	0.119
EN-DC															
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	132322	1745	16.18	17.00	1.208	-0.04	0.568	0.686
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Tilted	Reduced Power Level 1/2/3	132322	1745	16.18	17.00	1.208	0.15	0.705	0.852
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Cheek	Reduced Power Level 1/2/3	132322	1745	16.18	17.00	1.208	-0.03	0.486	0.587
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Tilted	Reduced Power Level 1/2/3	132322	1745	16.18	17.00	1.208	0.08	0.620	0.749
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Tilted	Reduced Power Level 1/2/3	132072	1720	16.09	17.00	1.233	-0.03	0.541	0.667
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Tilted	Reduced Power Level 1/2/3	132572	1770	16.03	17.00	1.250	-0.04	0.783	0.979
	LTE Band 66_Ant0	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	132322	1745	16.15	17.00	1.216	-0.01	0.577	0.702
	LTE Band 66_Ant0	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	132322	1745	16.15	17.00	1.216	-0.11	0.727	0.884
	LTE Band 66_Ant0	20M	QPSK	50	24	Left Cheek	Reduced Power Level 1/2/3	132322	1745	16.15	17.00	1.216	-0.08	0.497	0.604
	LTE Band 66_Ant0	20M	QPSK	50	24	Left Tilted	Reduced Power Level 1/2/3	132322	1745	16.15	17.00	1.216	0.03	0.629	0.765
	LTE Band 66_Ant0	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	132072	1720	16.07	17.00	1.239	0.01	0.601	0.745
	LTE Band 66_Ant0	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	132572	1770	16.00	17.00	1.259	0.11	0.748	0.942
	LTE Band 66_Ant0	20M	QPSK	100	0	Right Cheek	Reduced Power Level 1/2/3	132322	1745	16.14	17.00	1.219	-0.07	0.717	0.874
	LTE Band 66_Ant1	20M	QPSK	1	0	Right Cheek	Full Power	132322	1745	23.88	24.80	1.236	0.06	0.089	0.110
	LTE Band 66_Ant1	20M	QPSK	1	0	Right Tilted	Full Power	132322	1745	23.88	24.80	1.236	0.13	0.053	0.066
	LTE Band 66_Ant1	20M	QPSK	1	0	Left Cheek	Full Power	132322	1745	23.88	24.80	1.236	0.09	0.067	0.083
	LTE Band 66_Ant1	20M	QPSK	1	0	Left Tilted	Full Power	132322	1745	23.88	24.80	1.236	-0.03	0.052	0.064
	LTE Band 66_Ant1	20M	QPSK	1	0	Right Cheek	Full Power	132072	1720	23.78	24.80	1.265	0.04	0.087	0.110
	LTE Band 66_Ant1	20M	QPSK	1	0	Right Cheek	Full Power	132572	1770	23.75	24.80	1.274	0.02	0.103	0.131
	LTE Band 66_Ant1	20M	QPSK	50	24	Right Cheek	Full Power	132322	1745	22.81	23.80	1.256	0.01	0.089	0.112
	LTE Band 66_Ant1	20M	QPSK	50	24	Right Tilted	Full Power	132322	1745	22.81	23.80	1.256	-0.1	0.053	0.067
	LTE Band 66_Ant1	20M	QPSK	50	24	Left Cheek	Full Power	132322	1745	22.81	23.80	1.256	0.16	0.067	0.084
	LTE Band 66_Ant1	20M	QPSK	50	24	Left Tilted	Full Power	132322	1745	22.81	23.80	1.256	-0.02	0.052	0.065



**FCC SAR TEST REPORT**

**Report No. : FA002801-07**

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	49	Right Cheek	Reduced Power Level 1/2/3	26340	1880	17.54	18.50	1.247	-0.18	0.755	0.942
	LTE Band 25_UAT	20M	QPSK	1	49	Right Tilted	Reduced Power Level 1/2/3	26340	1880	17.54	18.50	1.247	-0.11	0.265	0.331
	LTE Band 25_UAT	20M	QPSK	1	49	Left Cheek	Reduced Power Level 1/2/3	26340	1880	17.54	18.50	1.247	0.15	0.250	0.312
	LTE Band 25_UAT	20M	QPSK	1	49	Left Tilted	Reduced Power Level 1/2/3	26340	1880	17.54	18.50	1.247	-0.03	0.174	0.217
	LTE Band 25_UAT	20M	QPSK	1	49	Right Cheek	Reduced Power Level 1/2/3	26140	1860	17.42	18.50	1.282	0.03	0.711	0.912
	LTE Band 25_UAT	20M	QPSK	1	49	Right Cheek	Reduced Power Level 1/2/3	26590	1905	17.45	18.50	1.274	0.09	0.858	1.093
	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	26340	1880	17.51	18.50	1.256	0.15	0.762	0.957
	LTE Band 25_UAT	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	26340	1880	17.51	18.50	1.256	-0.14	0.278	0.349
	LTE Band 25_UAT	20M	QPSK	50	24	Left Cheek	Reduced Power Level 1/2/3	26340	1880	17.51	18.50	1.256	-0.16	0.265	0.333
	LTE Band 25_UAT	20M	QPSK	50	24	Left Tilted	Reduced Power Level 1/2/3	26340	1880	17.51	18.50	1.256	0.02	0.184	0.231
	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	26140	1860	17.40	18.50	1.288	0.15	0.728	0.938
15	LTE Band 25_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	26590	1905	17.43	18.50	1.279	0.06	0.874	1.118
	LTE Band 25_UAT	20M	QPSK	100	0	Right Cheek	Reduced Power Level 1/2/3	26340	1880	17.48	18.50	1.265	0.09	0.743	0.940
	LTE Band 25_LAT	20M	QPSK	1	49	Right Cheek	Full	26340	1880	24.00	24.80	1.202	0.15	0.173	0.208
	LTE Band 25_LAT	20M	QPSK	1	49	Right Tilted	Full	26340	1880	24.00	24.80	1.202	-0.07	0.105	0.126
	LTE Band 25_LAT	20M	QPSK	1	49	Left Cheek	Full	26340	1880	24.00	24.80	1.202	0.06	0.171	0.206
	LTE Band 25_LAT	20M	QPSK	1	49	Left Tilted	Full	26340	1880	24.00	24.80	1.202	-0.11	0.144	0.173
	LTE Band 25_LAT	20M	QPSK	1	49	Right Cheek	Full	26140	1860	23.93	24.80	1.222	-0.01	0.162	0.198
	LTE Band 25_LAT	20M	QPSK	1	49	Right Cheek	Full	26590	1905	23.98	24.80	1.208	-0.18	0.219	0.265
	LTE Band 25_LAT	20M	QPSK	50	24	Right Cheek	Full	26340	1880	23.15	23.80	1.161	-0.05	0.132	0.153
	LTE Band 25_LAT	20M	QPSK	50	24	Right Tilted	Full	26340	1880	23.15	23.80	1.161	0.02	0.084	0.098
	LTE Band 25_LAT	20M	QPSK	50	24	Left Cheek	Full	26340	1880	23.15	23.80	1.161	-0.19	0.155	0.180
	LTE Band 25_LAT	20M	QPSK	50	24	Left Tilted	Full	26340	1880	23.15	23.80	1.161	0.18	0.131	0.152
16	LTE Band 30_UAT	10M	QPSK	1	25	Right Cheek	Reduced Power Level 1/2/3	27710	2310	16.89	17.50	1.151	0.05	0.989	1.138
	LTE Band 30_UAT	10M	QPSK	1	25	Right Tilted	Reduced Power Level 1/2/3	27710	2310	16.89	17.50	1.151	0.02	0.344	0.396
	LTE Band 30_UAT	10M	QPSK	1	25	Left Cheek	Reduced Power Level 1/2/3	27710	2310	16.89	17.50	1.151	0.06	0.262	0.302
	LTE Band 30_UAT	10M	QPSK	1	25	Left Tilted	Reduced Power Level 1/2/3	27710	2310	16.89	17.50	1.151	0.12	0.182	0.209
	LTE Band 30_UAT	10M	QPSK	25	12	Right Cheek	Reduced Power Level 1/2/3	27710	2310	16.86	17.50	1.159	-0.03	0.969	1.123
	LTE Band 30_UAT	10M	QPSK	25	12	Right Tilted	Reduced Power Level 1/2/3	27710	2310	16.86	17.50	1.159	0.04	0.335	0.388
	LTE Band 30_UAT	10M	QPSK	25	12	Left Cheek	Reduced Power Level 1/2/3	27710	2310	16.86	17.50	1.159	0.1	0.253	0.293
	LTE Band 30_UAT	10M	QPSK	25	12	Left Tilted	Reduced Power Level 1/2/3	27710	2310	16.86	17.50	1.159	0.05	0.178	0.206
	LTE Band 30_UAT	10M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	27710	2310	16.83	17.50	1.167	-0.02	0.960	1.120
	LTE Band 30_LAT	10M	QPSK	1	25	Right Cheek	Full	27710	2310	24.00	24.80	1.202	0.04	0.257	0.309
	LTE Band 30_LAT	10M	QPSK	1	25	Right Tilted	Full	27710	2310	24.00	24.80	1.202	0.16	0.152	0.183
	LTE Band 30_LAT	10M	QPSK	1	25	Left Cheek	Full	27710	2310	24.00	24.80	1.202	-0.19	0.268	0.322
	LTE Band 30_LAT	10M	QPSK	1	25	Left Tilted	Full	27710	2310	24.00	24.80	1.202	-0.12	0.129	0.155
	LTE Band 30_LAT	10M	QPSK	25	12	Right Cheek	Full	27710	2310	23.11	23.80	1.172	-0.07	0.209	0.245
	LTE Band 30_LAT	10M	QPSK	25	12	Right Tilted	Full	27710	2310	23.11	23.80	1.172	0.02	0.123	0.144
	LTE Band 30_LAT	10M	QPSK	25	12	Left Cheek	Full	27710	2310	23.11	23.80	1.172	0.18	0.225	0.264
	LTE Band 30_LAT	10M	QPSK	25	12	Left Tilted	Full	27710	2310	23.11	23.80	1.172	-0.1	0.104	0.122



**FCC SAR TEST REPORT**

Report No. : FA002801-07

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 1/2/3	21100	2535	14.81	15.50	1.172	-0.01	0.866	1.015
	LTE Band 7_UAT	20M	QPSK	1	99	Right Tilted	Reduced Power Level 1/2/3	21100	2535	14.81	15.50	1.172	-0.19	0.313	0.367
	LTE Band 7_UAT	20M	QPSK	1	99	Left Cheek	Reduced Power Level 1/2/3	21100	2535	14.81	15.50	1.172	0.16	0.217	0.254
	LTE Band 7_UAT	20M	QPSK	1	99	Left Tilted	Reduced Power Level 1/2/3	21100	2535	14.81	15.50	1.172	-0.09	0.165	0.193
	LTE Band 7_UAT	20M	QPSK	1	99	Right Cheek	Reduced Power Level 1/2/3	20850	2510	14.74	15.50	1.191	-0.14	0.822	0.979
	LTE Band 7_UAT	20M	QPSK	1	99	Right Cheek	Reduced Power Level 1/2/3	21350	2560	14.79	15.50	1.178	-0.15	0.835	0.983
17	LTE Band 7_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	21100	2535	14.79	15.50	1.178	0.05	0.891	1.049
	LTE Band 7_UAT	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	21100	2535	14.79	15.50	1.178	-0.02	0.326	0.384
	LTE Band 7_UAT	20M	QPSK	50	24	Left Cheek	Reduced Power Level 1/2/3	21100	2535	14.79	15.50	1.178	0.06	0.219	0.258
	LTE Band 7_UAT	20M	QPSK	50	24	Left Tilted	Reduced Power Level 1/2/3	21100	2535	14.79	15.50	1.178	-0.03	0.169	0.199
	LTE Band 7_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	20850	2510	14.73	15.50	1.194	0.15	0.852	1.017
	LTE Band 7_UAT	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	21350	2560	14.77	15.50	1.183	0.11	0.866	1.025
	LTE Band 7_UAT	20M	QPSK	100	0	Right Cheek	Reduced Power Level 1/2/3	21100	2535	14.77	15.50	1.183	-0.13	0.830	0.982
	LTE Band 7_LAT	20M	QPSK	1	99	Right Cheek	Full	21100	2535	24.18	24.80	1.153	-0.12	0.266	0.307
	LTE Band 7_LAT	20M	QPSK	1	99	Right Tilted	Full	21100	2535	24.18	24.80	1.153	-0.16	0.167	0.193
	LTE Band 7_LAT	20M	QPSK	1	99	Left Cheek	Full	21100	2535	24.18	24.80	1.153	0.19	0.367	0.423
	LTE Band 7_LAT	20M	QPSK	1	99	Left Tilted	Full	21100	2535	24.18	24.80	1.153	-0.06	0.120	0.138
	LTE Band 7_LAT	20M	QPSK	1	99	Left Cheek	Full	20850	2510	24.15	24.80	1.161	0.03	0.367	0.426
	LTE Band 7_LAT	20M	QPSK	1	99	Left Cheek	Full	21350	2560	24.00	24.80	1.202	-0.03	0.322	0.387
	LTE Band 7_LAT	20M	QPSK	50	24	Right Cheek	Full	21100	2535	23.26	23.80	1.132	-0.15	0.221	0.250
	LTE Band 7_LAT	20M	QPSK	50	24	Right Tilted	Full	21100	2535	23.26	23.80	1.132	0.08	0.147	0.166
	LTE Band 7_LAT	20M	QPSK	50	24	Left Cheek	Full	21100	2535	23.26	23.80	1.132	-0.16	0.308	0.349
	LTE Band 7_LAT	20M	QPSK	50	24	Left Tilted	Full	21100	2535	23.26	23.80	1.132	0.05	0.107	0.121
EN-DC															
	LTE Band 7_Ant0	20M	QPSK	1	99	Right Cheek	Reduced Power Level 1/2/3	21100	2535	16.74	17.50	1.191	-0.07	0.488	0.581
	LTE Band 7_Ant0	20M	QPSK	1	99	Right Tilted	Reduced Power Level 1/2/3	21100	2535	16.74	17.50	1.191	-0.01	0.652	0.777
	LTE Band 7_Ant0	20M	QPSK	1	99	Left Cheek	Reduced Power Level 1/2/3	21100	2535	16.74	17.50	1.191	-0.05	0.466	0.555
	LTE Band 7_Ant0	20M	QPSK	1	99	Left Tilted	Reduced Power Level 1/2/3	21100	2535	16.74	17.50	1.191	0.07	0.599	0.714
	LTE Band 7_Ant0	20M	QPSK	1	99	Right Tilted	Reduced Power Level 1/2/3	20850	2510	16.67	17.50	1.211	0.02	0.647	0.783
	LTE Band 7_Ant0	20M	QPSK	1	99	Right Tilted	Reduced Power Level 1/2/3	21350	2560	16.68	17.50	1.208	0.15	0.619	0.748
	LTE Band 7_Ant0	20M	QPSK	50	24	Right Cheek	Reduced Power Level 1/2/3	21100	2535	16.71	17.50	1.199	0.02	0.499	0.599
	LTE Band 7_Ant0	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	21100	2535	16.71	17.50	1.199	0.12	0.676	0.811
	LTE Band 7_Ant0	20M	QPSK	50	24	Left Cheek	Reduced Power Level 1/2/3	21100	2535	16.71	17.50	1.199	-0.04	0.482	0.578
	LTE Band 7_Ant0	20M	QPSK	50	24	Left Tilted	Reduced Power Level 1/2/3	21100	2535	16.71	17.50	1.199	0.05	0.633	0.759
	LTE Band 7_Ant0	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	20850	2510	16.65	17.50	1.216	-0.1	0.788	0.958
	LTE Band 7_Ant0	20M	QPSK	50	24	Right Tilted	Reduced Power Level 1/2/3	21350	2560	16.65	17.50	1.216	0.05	0.631	0.767
	LTE Band 7_Ant0	20M	QPSK	100	0	Right Tilted	Reduced Power Level 1/2/3	21100	2535	16.68	17.50	1.208	0.12	0.677	0.818
	LTE Band 7_Ant1	20M	QPSK	1	99	Right Cheek	Full	21100	2535	24.18	24.80	1.153	0.08	0.196	0.226
	LTE Band 7_Ant1	20M	QPSK	1	99	Right Tilted	Full	21100	2535	24.18	24.80	1.153	0.03	0.064	0.074
	LTE Band 7_Ant1	20M	QPSK	1	99	Left Cheek	Full	21100	2535	24.18	24.80	1.153	0.11	0.081	0.093
	LTE Band 7_Ant1	20M	QPSK	1	99	Left Tilted	Full	21100	2535	24.18	24.80	1.153	0.12	0.070	0.081
	LTE Band 7_Ant1	20M	QPSK	1	99	Right Cheek	Full	20850	2510	24.15	24.80	1.161	0.13	0.188	0.218
	LTE Band 7_Ant1	20M	QPSK	1	99	Right Cheek	Full	21350	2560	24.00	24.80	1.202	0.03	0.195	0.234
	LTE Band 7_Ant1	20M	QPSK	50	24	Right Cheek	Full	21100	2535	23.26	23.80	1.132	0.04	0.162	0.183
	LTE Band 7_Ant1	20M	QPSK	50	24	Right Tilted	Full	21100	2535	23.26	23.80	1.132	0.12	0.048	0.054
	LTE Band 7_Ant1	20M	QPSK	50	24	Left Cheek	Full	21100	2535	23.26	23.80	1.132	-0.08	0.063	0.071
	LTE Band 7_Ant1	20M	QPSK	50	24	Left Tilted	Full	21100	2535	23.26	23.80	1.132	-0.1	0.053	0.060





# FCC SAR TEST REPORT

Report No. : FA002801-07

LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	39750	2506	25.80	26.80	1.259	42.9	1.009	0.17	0.207	0.263
LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	40620	2593	26.10	26.80	1.175	42.9	1.009	0.19	0.212	0.251
LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	41055	2636.5	26.15	26.80	1.161	42.9	1.009	-0.08	0.167	0.196
LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	41490	2680	26.15	26.80	1.161	42.9	1.009	-0.11	0.146	0.171
LTE Band 41C(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	40185(PCC)+40383(SCC)	2549.5(PCC)+2569.3(SCC)	26.15	26.80	1.161	42.9	1.009	0.12	0.100	0.117
LTE Band 41C(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	39750(PCC)+39948(SCC)	2506(PCC)+2525.8(SCC)	26.02	26.80	1.197	42.9	1.009	0.05	0.089	0.107
LTE Band 41C(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	40620(PCC)+40422(SCC)	2593(PCC)+2573.2(SCC)	26.08	26.80	1.180	42.9	1.009	-0.15	0.094	0.112
LTE Band 41C(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	41055(PCC)+40857(SCC)	2636.5(PCC)+2616.7(SCC)	25.96	26.80	1.213	42.9	1.009	-0.13	0.084	0.103
LTE Band 41C(HPUE)_LAT	20M	QPSK	1	99	Left Cheek	Full	41490(PCC)+41292(SCC)	2680(PCC)+2660.2(SCC)	26.11	26.80	1.172	42.9	1.009	0.01	0.087	0.103
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Right Cheek	Full	40185	2549.5	25.36	25.80	1.107	42.9	1.009	0.06	0.127	0.142
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Right Tilted	Full	40185	2549.5	25.36	25.80	1.107	42.9	1.009	-0.09	0.068	0.076
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Left Cheek	Full	40185	2549.5	25.36	25.80	1.107	42.9	1.009	-0.19	0.152	0.170
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Left Tilted	Full	40185	2549.5	25.36	25.80	1.107	42.9	1.009	0.06	0.045	0.050

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)
	LTE Band 48_UAT	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	56640	3690	18.09	19.30	1.321	62.9	1.006	-0.02	0.736	0.978
	LTE Band 48_UAT	20M	QPSK	1	0	Right Tilted	Reduced Power Level 1/2/3	56640	3690	18.09	19.30	1.321	62.9	1.006	0.09	0.177	0.235
	LTE Band 48_UAT	20M	QPSK	1	0	Left Cheek	Reduced Power Level 1/2/3	56640	3690	18.09	19.30	1.321	62.9	1.006	-0.07	0.442	0.588
	LTE Band 48_UAT	20M	QPSK	1	0	Left Tilted	Reduced Power Level 1/2/3	56640	3690	18.09	19.30	1.321	62.9	1.006	0.07	0.039	0.052
	LTE Band 48_UAT	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	55340	3560	17.94	19.30	1.368	62.9	1.006	0.14	0.585	0.805
	LTE Band 48_UAT	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	55830	3609	17.95	19.30	1.365	62.9	1.006	-0.17	0.670	0.920
	LTE Band 48_UAT	20M	QPSK	1	0	Right Cheek	Reduced Power Level 1/2/3	56150	3641	17.89	19.30	1.384	62.9	1.006	-0.07	0.692	0.963
19	LTE Band 48_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	56640	3690	18.07	19.30	1.327	62.9	1.006	-0.19	0.775	1.035
	LTE Band 48_UAT	20M	QPSK	50	0	Right Tilted	Reduced Power Level 1/2/3	56640	3690	18.07	19.30	1.327	62.9	1.006	-0.02	0.189	0.252
	LTE Band 48_UAT	20M	QPSK	50	0	Left Cheek	Reduced Power Level 1/2/3	56640	3690	18.07	19.30	1.327	62.9	1.006	0.06	0.448	0.598
	LTE Band 48_UAT	20M	QPSK	50	0	Left Tilted	Reduced Power Level 1/2/3	56640	3690	18.07	19.30	1.327	62.9	1.006	0.05	0.041	0.055
	LTE Band 48_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	55340	3560	17.92	19.30	1.374	62.9	1.006	-0.13	0.596	0.824
	LTE Band 48_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	55830	3609	17.93	19.30	1.371	62.9	1.006	-0.01	0.688	0.949
	LTE Band 48_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	56150	3641	17.88	19.30	1.387	62.9	1.006	-0.12	0.715	0.997
	LTE Band 48_UAT	20M	QPSK	100	0	Right Cheek	Reduced Power Level 1/2/3	56640	3690	18.04	19.30	1.337	62.9	1.006	0.05	0.719	0.967
	LTE Band 48C_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	56640(PCC)+ 56442(SCC)	3690(PCC)+3670.2(SCC)	15.41	16.30	1.227	62.9	1.006	0.09	0.410	0.506
	LTE Band 48C_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	55340(PCC)+ 55538(SCC)	3560(PCC)+3579.8(SCC)	15.36	16.30	1.242	62.9	1.006	0.02	0.366	0.457
	LTE Band 48C_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	55830(PCC)+ 55632(SCC)	3609(PCC)+3589.2(SCC)	15.36	16.30	1.242	62.9	1.006	0.11	0.419	0.523
	LTE Band 48C_UAT	20M	QPSK	50	0	Right Cheek	Reduced Power Level 1/2/3	56150(PCC)+ 55952(SCC)	3641(PCC)+3621.2(SCC)	15.31	16.30	1.256	62.9	1.006	-0.05	0.457	0.577



<5GNR 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)
20	N71_Ant0	20M	BPSK	1	1	DFT-15	Right Cheek	Full	136100	680.5	23.96	24.80	1.213	-0.12	0.572	<b>0.694</b>
	N71_Ant0	20M	BPSK	1	1	DFT-15	Right Tilted	Full	136100	680.5	23.96	24.80	1.213	-0.19	0.502	0.609
	N71_Ant0	20M	BPSK	1	1	DFT-15	Left Cheek	Full	136100	680.5	23.96	24.80	1.213	0.13	0.409	0.496
	N71_Ant0	20M	BPSK	1	1	DFT-15	Left Tilted	Full	136100	680.5	23.96	24.80	1.213	-0.12	0.380	0.461
	N71_Ant0	20M	BPSK	50	28	DFT-15	Right Cheek	Full	136100	680.5	23.90	24.80	1.230	-0.19	0.426	0.524
	N71_Ant0	20M	BPSK	50	28	DFT-15	Right Tilted	Full	136100	680.5	23.90	24.80	1.230	0.16	0.358	0.440
	N71_Ant0	20M	BPSK	50	28	DFT-15	Left Cheek	Full	136100	680.5	23.90	24.80	1.230	-0.15	0.329	0.405
	N71_Ant0	20M	BPSK	50	28	DFT-15	Left Tilted	Full	136100	680.5	23.90	24.80	1.230	0.14	0.282	0.347
	N71_Ant1	20M	BPSK	1	1	DFT-15	Right Cheek	Full	136100	680.5	24.08	24.80	1.180	-0.01	0.084	0.099
	N71_Ant1	20M	BPSK	1	1	DFT-15	Right Tilted	Full	136100	680.5	24.08	24.80	1.180	0.01	0.032	0.038
	N71_Ant1	20M	BPSK	1	1	DFT-15	Left Cheek	Full	136100	680.5	24.08	24.80	1.180	0.05	0.054	0.063
	N71_Ant1	20M	BPSK	1	1	DFT-15	Left Tilted	Full	136100	680.5	24.08	24.80	1.180	0.15	0.027	0.032
	N71_Ant1	20M	BPSK	50	28	DFT-15	Right Cheek	Full	136100	680.5	24.02	24.80	1.197	0.13	0.085	0.102
	N71_Ant1	20M	BPSK	50	28	DFT-15	Right Tilted	Full	136100	680.5	24.02	24.80	1.197	-0.19	0.033	0.040
	N71_Ant1	20M	BPSK	50	28	DFT-15	Left Cheek	Full	136100	680.5	24.02	24.80	1.197	-0.11	0.053	0.064
	N71_Ant1	20M	BPSK	50	28	DFT-15	Left Tilted	Full	136100	680.5	24.02	24.80	1.197	-0.17	0.027	0.032
21	N5_Ant0	20M	BPSK	1	1	DFT-15	Right Cheek	Full	167300	836.5	23.66	24.30	1.159	0.06	0.671	<b>0.778</b>
	N5_Ant0	20M	BPSK	1	1	DFT-15	Right Tilted	Full	167300	836.5	23.66	24.30	1.159	0.05	0.539	0.625
	N5_Ant0	20M	BPSK	1	1	DFT-15	Left Cheek	Full	167300	836.5	23.66	24.30	1.159	-0.09	0.511	0.592
	N5_Ant0	20M	BPSK	1	1	DFT-15	Left Tilted	Full	167300	836.5	23.66	24.30	1.159	-0.01	0.501	0.581
	N5_Ant0	20M	BPSK	50	28	DFT-15	Right Cheek	Full	167300	836.5	23.61	24.30	1.172	-0.09	0.351	0.411
	N5_Ant0	20M	BPSK	50	28	DFT-15	Right Tilted	Full	167300	836.5	23.61	24.30	1.172	-0.01	0.276	0.324
	N5_Ant0	20M	BPSK	50	28	DFT-15	Left Cheek	Full	167300	836.5	23.61	24.30	1.172	0.06	0.290	0.340
	N5_Ant0	20M	BPSK	50	28	DFT-15	Left Tilted	Full	167300	836.5	23.61	24.30	1.172	0.05	0.296	0.347
	N5_Ant1	20M	BPSK	1	1	DFT-15	Right Cheek	Full	167300	836.5	23.75	24.30	1.135	0.07	0.151	0.171
	N5_Ant1	20M	BPSK	1	1	DFT-15	Right Tilted	Full	167300	836.5	23.75	24.30	1.135	0.19	0.063	0.071
	N5_Ant1	20M	BPSK	1	1	DFT-15	Left Cheek	Full	167300	836.5	23.75	24.30	1.135	-0.08	0.113	0.128
	N5_Ant1	20M	BPSK	1	1	DFT-15	Left Tilted	Full	167300	836.5	23.75	24.30	1.135	-0.11	0.052	0.059
	N5_Ant1	20M	BPSK	50	28	DFT-15	Right Cheek	Full	167300	836.5	23.70	24.30	1.148	-0.03	0.081	0.093
	N5_Ant1	20M	BPSK	50	28	DFT-15	Right Tilted	Full	167300	836.5	23.70	24.30	1.148	0.17	0.035	0.040
	N5_Ant1	20M	BPSK	50	28	DFT-15	Left Cheek	Full	167300	836.5	23.70	24.30	1.148	-0.01	0.066	0.076
	N5_Ant1	20M	BPSK	50	28	DFT-15	Left Tilted	Full	167300	836.5	23.70	24.30	1.148	0.08	0.031	0.035





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)
N66_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	349000	1745	17.28	18.20	1.236	-0.01	0.733	0.906	
N66_Ant2	20M	BPSK	1	1	DFT-15	Right Tilted	Reduced Power Level 1/2/3	349000	1745	17.28	18.20	1.236	0.13	0.249	0.308	
N66_Ant2	20M	BPSK	1	1	DFT-15	Left Cheek	Reduced Power Level 1/2/3	349000	1745	17.28	18.20	1.236	0.06	0.236	0.292	
N66_Ant2	20M	BPSK	1	1	DFT-15	Left Tilted	Reduced Power Level 1/2/3	349000	1745	17.28	18.20	1.236	0.17	0.156	0.193	
N66_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	344000	1720	17.21	18.20	1.256	-0.02	0.605	0.760	
N66_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	354000	1770	17.20	18.20	1.259	0.11	0.821	1.034	
N66_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	349000	1745	17.25	18.20	1.245	0.08	0.754	0.938	
N66_Ant2	20M	BPSK	50	28	DFT-15	Right Tilted	Reduced Power Level 1/2/3	349000	1745	17.25	18.20	1.245	0.15	0.273	0.340	
N66_Ant2	20M	BPSK	50	28	DFT-15	Left Cheek	Reduced Power Level 1/2/3	349000	1745	17.25	18.20	1.245	0.17	0.252	0.314	
N66_Ant2	20M	BPSK	50	28	DFT-15	Left Tilted	Reduced Power Level 1/2/3	349000	1745	17.25	18.20	1.245	0.17	0.172	0.214	
N66_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	344000	1720	17.18	18.20	1.265	-0.04	0.637	0.806	
22 N66_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	354000	1770	17.17	18.20	1.268	0.04	0.854	<b>1.083</b>	
N66_Ant2	20M	BPSK	100	0	DFT-15	Right Cheek	Reduced Power Level 1/2/3	349000	1745	17.23	18.20	1.250	0.17	0.742	0.928	
N66_Ant3	20M	BPSK	1	1	DFT-15	Right Cheek	Full	349000	1745	24.09	24.80	1.178	-0.16	0.124	0.146	
N66_Ant3	20M	BPSK	1	1	DFT-15	Right Tilted	Full	349000	1745	24.09	24.80	1.178	0.13	0.074	0.087	
N66_Ant3	20M	BPSK	1	1	DFT-15	Left Cheek	Full	349000	1745	24.09	24.80	1.178	-0.12	0.105	0.124	
N66_Ant3	20M	BPSK	1	1	DFT-15	Left Tilted	Full	349000	1745	24.09	24.80	1.178	-0.18	0.077	0.090	
N66_Ant3	20M	BPSK	50	28	DFT-15	Right Cheek	Full	349000	1745	24.03	24.80	1.194	-0.02	0.131	0.156	
N66_Ant3	20M	BPSK	50	28	DFT-15	Right Tilted	Full	349000	1745	24.03	24.80	1.194	0.14	0.077	0.091	
N66_Ant3	20M	BPSK	50	28	DFT-15	Left Cheek	Full	349000	1745	24.03	24.80	1.194	0.17	0.112	0.134	
N66_Ant3	20M	BPSK	50	28	DFT-15	Left Tilted	Full	349000	1745	24.03	24.80	1.194	0.05	0.085	0.102	
N66_Ant3	20M	BPSK	50	28	DFT-15	Right Cheek	Full	344000	1720	24.00	24.80	1.202	0.02	0.100	0.120	
N66_Ant3	20M	BPSK	50	28	DFT-15	Right Cheek	Full	354000	1770	23.97	24.80	1.211	-0.09	0.128	0.155	
EN-DC																
N66_Ant0	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	349000	1745	17.13	18.00	1.222	0.18	0.540	0.660	
N66_Ant0	20M	BPSK	1	1	DFT-15	Right Tilted	Reduced Power Level 1/2/3	349000	1745	17.13	18.00	1.222	0.04	0.676	0.826	
N66_Ant0	20M	BPSK	1	1	DFT-15	Left Cheek	Reduced Power Level 1/2/3	349000	1745	17.13	18.00	1.222	-0.18	0.453	0.553	
N66_Ant0	20M	BPSK	1	1	DFT-15	Left Tilted	Reduced Power Level 1/2/3	349000	1745	17.13	18.00	1.222	-0.16	0.586	0.716	
N66_Ant0	20M	BPSK	1	1	DFT-15	Right Tilted	Reduced Power Level 1/2/3	344000	1720	16.97	18.00	1.268	-0.05	0.598	0.758	
N66_Ant0	20M	BPSK	1	1	DFT-15	Right Tilted	Reduced Power Level 1/2/3	354000	1770	17.09	18.00	1.233	0.18	0.873	1.077	
N66_Ant0	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	349000	1745	17.00	18.00	1.259	0.1	0.587	0.739	
N66_Ant0	20M	BPSK	50	28	DFT-15	Right Tilted	Reduced Power Level 1/2/3	349000	1745	17.00	18.00	1.259	0.02	0.734	0.924	
N66_Ant0	20M	BPSK	50	28	DFT-15	Left Cheek	Reduced Power Level 1/2/3	349000	1745	17.00	18.00	1.259	0.02	0.473	0.595	
N66_Ant0	20M	BPSK	50	28	DFT-15	Left Tilted	Reduced Power Level 1/2/3	349000	1745	17.00	18.00	1.259	0.01	0.615	0.774	
N66_Ant0	20M	BPSK	50	28	DFT-15	Right Tilted	Reduced Power Level 1/2/3	344000	1720	16.85	18.00	1.303	-0.11	0.637	0.830	
N66_Ant0	20M	BPSK	50	28	DFT-15	Right Tilted	Reduced Power Level 1/2/3	354000	1770	16.87	18.00	1.297	0.13	0.753	0.977	
N66_Ant0	20M	BPSK	100	0	DFT-15	Right Tilted	Reduced Power Level 1/2/3	349000	1745	16.87	18.00	1.297	-0.16	0.740	0.960	
N66_Ant1	20M	BPSK	1	1	DFT-15	Right Cheek	Full	349000	1745	24.18	24.80	1.153	0.01	0.054	0.062	
N66_Ant1	20M	BPSK	1	1	DFT-15	Right Tilted	Full	349000	1745	24.18	24.80	1.153	-	n/a	n/a	
N66_Ant1	20M	BPSK	1	1	DFT-15	Left Cheek	Full	349000	1745	24.18	24.80	1.153	-	n/a	n/a	
N66_Ant1	20M	BPSK	1	1	DFT-15	Left Tilted	Full	349000	1745	24.18	24.80	1.153	-	n/a	n/a	
N66_Ant1	20M	BPSK	1	1	DFT-15	Right Cheek	Full	344000	1720	24.14	24.80	1.164	0	0.043	0.050	
N66_Ant1	20M	BPSK	1	1	DFT-15	Right Cheek	Full	354000	1770	23.87	24.80	1.239	0.11	0.059	0.073	
N66_Ant1	20M	BPSK	50	28	DFT-15	Right Cheek	Full	349000	1745	24.15	24.80	1.161	-0.17	0.056	0.065	
N66_Ant1	20M	BPSK	50	28	DFT-15	Right Tilted	Full	349000	1745	24.15	24.80	1.161	-	n/a	n/a	
N66_Ant1	20M	BPSK	50	28	DFT-15	Left Cheek	Full	349000	1745	24.15	24.80	1.161	-	n/a	n/a	
N66_Ant1	20M	BPSK	50	28	DFT-15	Left Tilted	Full	349000	1745	24.15	24.80	1.161	-	n/a	n/a	
N66_Ant1	20M	BPSK	50	28	DFT-15	Right Cheek	Full	344000	1720	24.13	24.80	1.167	0.04	0.048	0.056	
N66_Ant1	20M	BPSK	50	28	DFT-15	Right Cheek	Full	354000	1770	23.84	24.80	1.247	0.05	0.061	0.076	



# FCC SAR TEST REPORT

Report No. : FA002801-07

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)
	N25_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	376500	1882.5	17.41	18.20	1.199	0.19	0.825	0.990
	N25_Ant2	20M	BPSK	1	1	DFT-15	Right Tilted	Reduced Power Level 1/2/3	376500	1882.5	17.41	18.20	1.199	-0.12	0.269	0.323
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Cheek	Reduced Power Level 1/2/3	376500	1882.5	17.41	18.20	1.199	-0.18	0.253	0.303
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Tilted	Reduced Power Level 1/2/3	376500	1882.5	17.41	18.20	1.199	0.11	0.184	0.221
	N25_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	372000	1860	17.35	18.20	1.216	0.09	0.795	0.967
	N25_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	381000	1905	17.36	18.20	1.213	0.12	0.913	1.108
	N25_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	376500	1882.5	17.40	18.20	1.202	-0.03	0.849	1.021
	N25_Ant2	20M	BPSK	50	28	DFT-15	Right Tilted	Reduced Power Level 1/2/3	376500	1882.5	17.40	18.20	1.202	-0.01	0.276	0.332
	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Cheek	Reduced Power Level 1/2/3	376500	1882.5	17.40	18.20	1.202	0.08	0.261	0.314
	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Tilted	Reduced Power Level 1/2/3	376500	1882.5	17.40	18.20	1.202	-0.12	0.204	0.245
	N25_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	372000	1860	17.33	18.20	1.222	0.17	0.805	0.984
23	N25_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	381000	1905	17.34	18.20	1.219	-0.13	0.932	<b>1.136</b>
	N25_Ant2	20M	BPSK	100	0	DFT-15	Right Cheek	Reduced Power Level 1/2/3	376500	1882.5	17.39	18.20	1.205	0.15	0.828	0.998
	N25_Ant3	20M	BPSK	1	1	DFT-15	Right Cheek	Full	376500	1882.5	24.06	24.80	1.186	0.07	0.215	0.255
	N25_Ant3	20M	BPSK	1	1	DFT-15	Right Tilted	Full	376500	1882.5	24.06	24.80	1.186	-0.13	0.137	0.162
	N25_Ant3	20M	BPSK	1	1	DFT-15	Left Cheek	Full	376500	1882.5	24.06	24.80	1.186	0.17	0.177	0.210
	N25_Ant3	20M	BPSK	1	1	DFT-15	Left Tilted	Full	376500	1882.5	24.06	24.80	1.186	0.08	0.155	0.184
	N25_Ant3	20M	BPSK	50	28	DFT-15	Right Cheek	Full	376500	1882.5	24.03	24.80	1.194	0.05	0.224	0.267
	N25_Ant3	20M	BPSK	50	28	DFT-15	Right Tilted	Full	376500	1882.5	24.03	24.80	1.194	-0.16	0.145	0.173
	N25_Ant3	20M	BPSK	50	28	DFT-15	Left Cheek	Full	376500	1882.5	24.03	24.80	1.194	0.1	0.184	0.220
	N25_Ant3	20M	BPSK	50	28	DFT-15	Left Tilted	Full	376500	1882.5	24.03	24.80	1.194	-0.1	0.166	0.198
	N25_Ant3	20M	BPSK	50	28	DFT-15	Right Cheek	Full	372000	1860	23.89	24.80	1.233	0.1	0.200	0.247
	N25_Ant3	20M	BPSK	50	28	DFT-15	Right Cheek	Full	381000	1905	23.95	24.80	1.216	0.01	0.244	0.297
	N7_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	507000	2535	15.62	16.20	1.143	0.13	0.829	0.947
	N7_Ant2	20M	BPSK	1	1	DFT-15	Right Tilted	Reduced Power Level 1/2/3	507000	2535	15.62	16.20	1.143	0.17	0.311	0.355
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Cheek	Reduced Power Level 1/2/3	507000	2535	15.62	16.20	1.143	0.12	0.195	0.223
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Tilted	Reduced Power Level 1/2/3	507000	2535	15.62	16.20	1.143	-0.15	0.146	0.167
	N7_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	502000	2510	15.58	16.20	1.153	0.19	0.977	1.127
	N7_Ant2	20M	BPSK	1	1	DFT-15	Right Cheek	Reduced Power Level 1/2/3	512000	2560	15.54	16.20	1.164	0.05	0.918	1.069
	N7_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	507000	2535	15.58	16.20	1.153	0.11	0.840	0.969
	N7_Ant2	20M	BPSK	50	28	DFT-15	Right Tilted	Reduced Power Level 1/2/3	507000	2535	15.58	16.20	1.153	-0.15	0.325	0.375
	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Cheek	Reduced Power Level 1/2/3	507000	2535	15.58	16.20	1.153	0.06	0.203	0.234
	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Tilted	Reduced Power Level 1/2/3	507000	2535	15.58	16.20	1.153	-0.17	0.161	0.186
24	N7_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	502000	2510	15.56	16.20	1.159	0.17	0.988	<b>1.145</b>
	N7_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	Reduced Power Level 1/2/3	512000	2560	15.51	16.20	1.172	-0.18	0.934	1.095
	N7_Ant2	20M	BPSK	100	0	DFT-15	Right Cheek	Reduced Power Level 1/2/3	507000	2535	15.55	16.20	1.161	-0.05	0.831	0.965
	N7_Ant3	20M	BPSK	1	1	DFT-15	Right Cheek	Full	507000	2535	24.15	24.80	1.161	-0.13	0.239	0.278
	N7_Ant3	20M	BPSK	1	1	DFT-15	Right Tilted	Full	507000	2535	24.15	24.80	1.161	0.04	0.176	0.204
	N7_Ant3	20M	BPSK	1	1	DFT-15	Left Cheek	Full	507000	2535	24.15	24.80	1.161	0.11	0.299	0.347
	N7_Ant3	20M	BPSK	1	1	DFT-15	Left Tilted	Full	507000	2535	24.15	24.80	1.161	0.15	0.123	0.143
	N7_Ant3	20M	BPSK	1	1	DFT-15	Left Cheek	Full	502000	2510	24.06	24.80	1.186	0.12	0.324	0.384
	N7_Ant3	20M	BPSK	1	1	DFT-15	Left Cheek	Full	512000	2560	24.05	24.80	1.189	0.1	0.250	0.297
	N7_Ant3	20M	BPSK	50	28	DFT-15	Right Cheek	Full	507000	2535	24.10	24.80	1.175	-0.12	0.237	0.278
	N7_Ant3	20M	BPSK	50	28	DFT-15	Right Tilted	Full	507000	2535	24.10	24.80	1.175	-0.18	0.176	0.207
	N7_Ant3	20M	BPSK	50	28	DFT-15	Left Cheek	Full	507000	2535	24.10	24.80	1.175	-0.18	0.293	0.344
	N7_Ant3	20M	BPSK	50	28	DFT-15	Left Tilted	Full	507000	2535	24.10	24.80	1.175	0.04	0.112	0.132



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Report No. : FA002801-07

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)
	N41_Ant2	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.20	15.20	1.259	0.1	0.649	0.817
	N41_Ant2	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.20	15.20	1.259	0.08	0.302	0.380
	N41_Ant2	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.20	15.20	1.259	-0.07	0.182	0.229
	N41_Ant2	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.20	15.20	1.259	-0.11	0.133	0.167
	N41_Ant2	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	509202	22546.01	14.17	15.20	1.268	0.06	0.656	0.832
	N41_Ant2	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	528000	2640	14.15	15.20	1.274	0.01	0.745	0.949
	N41_Ant2	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.18	15.20	1.265	0.03	0.641	0.811
	N41_Ant2	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.18	15.20	1.265	0.09	0.298	0.377
	N41_Ant2	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.18	15.20	1.265	0.09	0.174	0.220
	N41_Ant2	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.18	15.20	1.265	0.01	0.127	0.161
	N41_Ant2	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	509202	22546.01	14.14	15.20	1.276	0.05	0.634	0.809
	N41_Ant2	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	528000	2640	14.12	15.20	1.282	0.09	0.721	0.925
	N41_Ant2	100M	BPSK	270	0	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.15	15.20	1.274	0.08	0.634	0.807
	N41_Ant3	100M	BPSK	1	1	DFT-30	Right Cheek	Full	518598	2592.99	24.00	24.80	1.202	0.14	0.234	0.281
	N41_Ant3	100M	BPSK	1	1	DFT-30	Right Tilted	Full	518598	2592.99	24.00	24.80	1.202	-0.08	0.143	0.172
	N41_Ant3	100M	BPSK	1	1	DFT-30	Left Cheek	Full	518598	2592.99	24.00	24.80	1.202	0.05	0.301	0.362
	N41_Ant3	100M	BPSK	1	1	DFT-30	Left Tilted	Full	518598	2592.99	24.00	24.80	1.202	-0.09	0.117	0.141
	N41_Ant3	100M	BPSK	1	1	DFT-30	Left Cheek	Full	509202	22546.01	23.90	24.80	1.230	0.05	0.308	0.379
	N41_Ant3	100M	BPSK	1	1	DFT-30	Left Cheek	Full	528000	2640	23.94	24.80	1.219	-0.17	0.299	0.364
	N41_Ant3	100M	BPSK	135	69	DFT-30	Right Cheek	Full	518598	2592.99	23.95	24.80	1.216	-0.13	0.197	0.240
	N41_Ant3	100M	BPSK	135	69	DFT-30	Right Tilted	Full	518598	2592.99	23.95	24.80	1.216	-0.09	0.132	0.161
	N41_Ant3	100M	BPSK	135	69	DFT-30	Left Cheek	Full	518598	2592.99	23.95	24.80	1.216	-0.15	0.288	0.350
	N41_Ant3	100M	BPSK	135	69	DFT-30	Left Tilted	Full	518598	2592.99	23.95	24.80	1.216	-0.06	0.113	0.137
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.37	15.20	1.211	0.03	0.802	0.971
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.37	15.20	1.211	-0.08	0.305	0.369
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.37	15.20	1.211	-0.06	0.178	0.215
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.37	15.20	1.211	-0.02	0.129	0.156
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	509202	22546.01	14.32	15.20	1.225	-0.17	0.782	0.958
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	528000	2640	14.36	15.20	1.213	-0.02	0.914	1.109
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.35	15.20	1.216	0.11	0.819	0.996
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.35	15.20	1.216	0.03	0.313	0.381
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.35	15.20	1.216	0.09	0.197	0.240
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	14.35	15.20	1.216	0.11	0.132	0.161
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	509202	22546.01	14.29	15.20	1.233	-0.03	0.800	0.986
25	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	528000	2640	14.33	15.20	1.222	-0.08	0.935	<b>1.142</b>
	N41(HPUE)_Ant2	100M	BPSK	270	0	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	14.32	15.20	1.225	0.08	0.800	0.980
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Right Cheek	Full	518598	2592.99	26.00	26.80	1.202	0.18	0.314	0.378
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Right Tilted	Full	518598	2592.99	26.00	26.80	1.202	0.09	0.199	0.239
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Left Cheek	Full	518598	2592.99	26.00	26.80	1.202	0.1	0.454	0.546
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Left Tilted	Full	518598	2592.99	26.00	26.80	1.202	-0.11	0.177	0.213
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Left Cheek	Full	509202	22546.01	25.84	26.80	1.247	-0.12	0.447	0.558
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Left Cheek	Full	528000	2640	25.94	26.80	1.219	0.19	0.363	0.442
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Right Cheek	Full	518598	2592.99	25.94	26.80	1.219	0.15	0.311	0.379
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Right Tilted	Full	518598	2592.99	25.94	26.80	1.219	0.11	0.192	0.234
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Left Cheek	Full	518598	2592.99	25.94	26.80	1.219	0.18	0.441	0.538
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Left Tilted	Full	518598	2592.99	25.94	26.80	1.219	0.02	0.157	0.191
EN-DC																
	N41_Ant0	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	-0.09	0.560	0.663
	N41_Ant0	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	-0.06	0.825	0.976
	N41_Ant0	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	0.18	0.526	0.622
	N41_Ant0	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	-0.19	0.702	0.830
	N41_Ant0	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	509202	22546.01	17.12	18.00	1.225	0.05	0.541	0.663
	N41_Ant0	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	0.13	0.573	0.687



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	N41_Ant0	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	0.14	0.842	1.031
	N41_Ant0	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	0.01	0.866	1.039
	N41_Ant0	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	0.18	0.504	0.617
	N41_Ant0	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	-0.16	0.512	0.614
	N41_Ant0	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	-0.17	0.675	0.827
	N41_Ant0	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	-0.17	0.674	0.808
	N41_Ant0	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	-0.15	0.500	0.594
	N41_Ant0	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	-0.13	0.666	0.792
	N41_Ant0	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	0.08	0.461	0.548
	N41_Ant0	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	-0.15	0.571	0.679
	N41_Ant0	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	-0.06	0.653	0.800
	N41_Ant0	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	528000	2640	17.19	18.00	1.205	0.05	0.653	0.787
	N41_Ant0	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	-0.03	0.552	0.676
	N41_Ant0	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	528000	2640	17.19	18.00	1.205	0.01	0.518	0.624
	N41_Ant0	100M	BPSK	270	0	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	-0.09	0.569	0.679
	N41_Ant0	100M	BPSK	270	0	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	-0.02	0.602	0.719
	N41_Ant0	100M	BPSK	270	0	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	0.04	0.487	0.581
	N41_Ant0	100M	BPSK	270	0	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	-0.06	0.588	0.702
	N41_Ant1	100M	BPSK	1	1	DFT-30	Right Cheek	Full	518598	2592.99	24.22	24.80	1.143	-0.01	0.178	0.203
	N41_Ant1	100M	BPSK	1	1	DFT-30	Right Tilted	Full	518598	2592.99	24.22	24.80	1.143	-0.16	0.047	0.054
	N41_Ant1	100M	BPSK	1	1	DFT-30	Left Cheek	Full	518598	2592.99	24.22	24.80	1.143	0.08	0.086	0.098
	N41_Ant1	100M	BPSK	1	1	DFT-30	Left Tilted	Full	518598	2592.99	24.22	24.80	1.143	0.03	0.061	0.070
	N41_Ant1	100M	BPSK	1	1	DFT-30	Right Cheek	Full	509202	2546.01	24.18	24.80	1.153	0.18	0.171	0.197
	N41_Ant1	100M	BPSK	1	1	DFT-30	Right Cheek	Full	528000	2640	24.14	24.80	1.164	0.03	0.169	0.197
	N41_Ant1	100M	BPSK	135	69	DFT-30	Right Cheek	Full	518598	2592.99	24.19	24.80	1.151	-0.04	0.177	0.204
	N41_Ant1	100M	BPSK	135	69	DFT-30	Right Tilted	Full	518598	2592.99	24.19	24.80	1.151	0.17	0.045	0.052
	N41_Ant1	100M	BPSK	135	69	DFT-30	Left Cheek	Full	518598	2592.99	24.19	24.80	1.151	0.16	0.086	0.099
	N41_Ant1	100M	BPSK	135	69	DFT-30	Left Tilted	Full	518598	2592.99	24.19	24.80	1.151	0.11	0.071	0.082
	N41_Ant1	100M	BPSK	135	69	DFT-30	Right Cheek	Full	509202	2546.01	24.15	24.80	1.161	0.06	0.169	0.196
	N41_Ant1	100M	BPSK	135	69	DFT-30	Right Cheek	Full	528000	2640	24.11	24.80	1.172	-0.02	0.159	0.186
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	-0.09	0.560	0.663
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	-0.06	0.825	0.976
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	0.18	0.526	0.622
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.27	18.00	1.183	-0.19	0.702	0.830
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	0.05	0.541	0.663
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	0.13	0.573	0.687
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	0.14	0.842	1.031
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	0.01	0.866	1.039
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	0.18	0.504	0.617
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	-0.16	0.512	0.614
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	-0.17	0.675	0.827
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1/2/3	528000	2640	17.21	18.00	1.199	-0.17	0.674	0.808
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	-0.15	0.500	0.594
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	-0.13	0.666	0.792
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	0.08	0.461	0.548
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.25	18.00	1.189	-0.15	0.571	0.679
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	-0.06	0.653	0.800
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1/2/3	528000	2640	17.19	18.00	1.205	0.05	0.653	0.787
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	509202	2546.01	17.12	18.00	1.225	-0.03	0.552	0.676
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1/2/3	528000	2640	17.19	18.00	1.205	0.01	0.518	0.624
	N41(HPUE)_Ant0	100M	BPSK	270	0	DFT-30	Right Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	-0.09	0.569	0.679
	N41(HPUE)_Ant0	100M	BPSK	270	0	DFT-30	Right Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	-0.02	0.602	0.719
	N41(HPUE)_Ant0	100M	BPSK	270	0	DFT-30	Left Cheek	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	0.04	0.487	0.581
	N41(HPUE)_Ant0	100M	BPSK	270	0	DFT-30	Left Tilted	Reduced Power Level 1/2/3	518598	2592.99	17.23	18.00	1.194	-0.06	0.588	0.702
	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Right Cheek	Full	518598	2592.99	25.48	26.80	1.355	0.06	0.224	0.304
	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Right Tilted	Full	518598	2592.99	25.48	26.80	1.355	0.14	0.060	0.081



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	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Left Cheek	Full	518598	2592.99	25.48	26.80	1.355	0.04	0.108	0.146
	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Left Tilted	Full	518598	2592.99	25.48	26.80	1.355	0.18	0.078	0.106
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Right Cheek	Full	518598	2592.99	25.35	26.80	1.396	-0.14	0.221	0.309
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Right Tilted	Full	518598	2592.99	25.35	26.80	1.396	0.11	0.057	0.080
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Left Cheek	Full	518598	2592.99	25.35	26.80	1.396	-0.04	0.106	0.148
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Left Tilted	Full	518598	2592.99	25.35	26.80	1.396	-0.01	0.092	0.128
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Right Cheek	Full	509202	2546.01	25.32	26.80	1.406	-0.14	0.219	0.308
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Right Cheek	Full	528000	2640	25.09	26.80	1.483	0.02	0.201	0.298



**FCC SAR TEST REPORT**

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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)
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1	656000	3840	17.44	18.20	1.191	-0.18	0.975	1.161
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 1	656000	3840	17.44	18.20	1.191	-0.04	0.183	0.218
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1	656000	3840	17.44	18.20	1.191	-0.06	0.557	0.664
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 1	656000	3840	17.44	18.20	1.191	0.13	0.108	0.129
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1	650000	3750	17.28	18.20	1.236	-0.12	0.905	1.119
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 1	662000	3930	17.41	18.20	1.199	0.02	0.887	1.064
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1	650000	3750	17.28	18.20	1.236	0.08	0.513	0.634
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 1	662000	3930	17.41	18.20	1.199	0.11	0.499	0.599
27	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1	656000	3840	17.41	18.20	1.199	0.01	0.980	1.176
	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 1	656000	3840	17.41	18.20	1.199	-0.11	0.189	0.227
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 1	656000	3840	17.41	18.20	1.199	-0.03	0.579	0.695
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 1	656000	3840	17.41	18.20	1.199	-0.04	0.111	0.133
	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1	650000	3750	17.26	18.20	1.242	-0.03	0.916	1.137
	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 1	662000	3930	17.38	18.20	1.208	0.01	0.895	1.081
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 1	650000	3750	17.26	18.20	1.242	-0.05	0.528	0.656
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 1	662000	3930	17.38	18.20	1.208	0.08	0.507	0.612
	N77_Ant7	100M	BPSK	270	0	DFT-30	Right Cheek	Reduced Power Level 1	656000	3840	17.38	18.20	1.208	0.12	0.966	1.167
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 2/3	656000	3840	15.74	16.70	1.247	-0.04	0.658	0.821
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Tilted	Reduced Power Level 2/3	656000	3840	15.74	16.70	1.247	-0.16	0.125	0.156
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Cheek	Reduced Power Level 2/3	656000	3840	15.74	16.70	1.247	0.19	0.385	0.480
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Tilted	Reduced Power Level 2/3	656000	3840	15.74	16.70	1.247	0.02	0.074	0.092
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 2/3	650000	3750	15.64	16.70	1.276	-0.02	0.622	0.794
	N77_Ant7	100M	BPSK	1	1	DFT-30	Right Cheek	Reduced Power Level 2/3	662000	3930	15.71	16.70	1.256	0.04	0.607	0.762
	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 2/3	656000	3840	15.71	16.70	1.256	-0.19	0.666	0.837
	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Tilted	Reduced Power Level 2/3	656000	3840	15.71	16.70	1.256	0.09	0.130	0.163
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Cheek	Reduced Power Level 2/3	656000	3840	15.71	16.70	1.256	-0.01	0.392	0.492
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Tilted	Reduced Power Level 2/3	656000	3840	15.71	16.70	1.256	0.16	0.076	0.095
	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 2/3	650000	3750	15.62	16.70	1.282	-0.01	0.629	0.807
	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	Reduced Power Level 2/3	662000	3930	15.68	16.70	1.265	0.04	0.604	0.764
	N77_Ant7	100M	BPSK	270	0	DFT-30	Right Cheek	Reduced Power Level 2/3	656000	3840	15.68	16.70	1.265	-0.16	0.659	0.833



<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	6	2437	16.01	17.50	1.409	100	1.000	0.07	0.137	0.193
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 1+2	Reduced Power Level 1	6	2437	16.01	17.50	1.409	100	1.000	0.1	0.141	0.199
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 1	6	2437	16.01	17.50	1.409	100	1.000	0.12	0.671	0.946
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 1+2	Reduced Power Level 1	6	2437	16.01	17.50	1.409	100	1.000	0.15	0.493	0.695
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 1	1	2412	15.96	17.50	1.426	100	1.000	0.04	0.524	0.747
28	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 1	11	2462	15.91	17.50	1.442	100	1.000	-0.18	0.751	1.083
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	0.15	0.158	0.218
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	0.18	0.189	0.261
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	-0.01	0.311	0.429
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	-0.16	0.287	0.396
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 2	1	2412	12.80	14.50	1.479	100	1.000	0.15	0.410	0.606
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 2	11	2462	12.90	14.50	1.445	100	1.000	0.19	0.342	0.494
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 1+2	Reduced Power Level 3/5	6	2437	14.01	15.50	1.409	100	1.000	0.09	0.084	0.119
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 1+2	Reduced Power Level 3/5	6	2437	14.01	15.50	1.409	100	1.000	-0.12	0.091	0.128
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 3/5	6	2437	14.01	15.50	1.409	100	1.000	-0.05	0.415	0.585
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 1+2	Reduced Power Level 3/5	6	2437	14.01	15.50	1.409	100	1.000	0.04	0.301	0.424
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 3/5	1	2412	13.96	15.50	1.426	100	1.000	0.11	0.342	0.488
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 3/5	11	2462	13.91	15.50	1.442	100	1.000	-0.16	0.457	0.659
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 2	Reduced Power Level 4	6	2437	11.10	12.50	1.380	100	1.000	-0.03	0.092	0.127
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 2	Reduced Power Level 4	6	2437	11.10	12.50	1.380	100	1.000	0.08	0.112	0.155
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 4	6	2437	11.10	12.50	1.380	100	1.000	0.07	0.185	0.255
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 2	Reduced Power Level 4	6	2437	11.10	12.50	1.380	100	1.000	0.03	0.173	0.239
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 4	1	2412	10.80	12.50	1.479	100	1.000	-0.18	0.250	0.370
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 4	11	2462	10.90	12.50	1.445	100	1.000	-0.07	0.206	0.298
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 2	Reduced Power Level 6	6	2437	10.10	11.50	1.380	100	1.000	0.14	0.075	0.104
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 2	Reduced Power Level 6	6	2437	10.10	11.50	1.380	100	1.000	0.18	0.088	0.121
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 6	6	2437	10.10	11.50	1.380	100	1.000	-0.06	0.152	0.210
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 2	Reduced Power Level 6	6	2437	10.10	11.50	1.380	100	1.000	-0.07	0.141	0.195
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 6	1	2412	9.80	11.50	1.479	100	1.000	-0.05	0.196	0.290
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 6	11	2462	9.90	11.50	1.445	100	1.000	0.07	0.162	0.234
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 1+2	Reduced Power Level 7	6	2437	12.01	13.50	1.409	100	1.000	-0.05	0.052	0.073
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 1+2	Reduced Power Level 7	6	2437	12.01	13.50	1.409	100	1.000	-0.17	0.055	0.078
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 7	6	2437	12.01	13.50	1.409	100	1.000	-0.19	0.265	0.373
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 1+2	Reduced Power Level 7	6	2437	12.01	13.50	1.409	100	1.000	-0.02	0.193	0.272
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 7	1	2412	11.96	13.50	1.426	100	1.000	0.16	0.207	0.295
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 1+2	Reduced Power Level 7	11	2462	11.91	13.50	1.442	100	1.000	0.01	0.293	0.423
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	Ant 2	Reduced Power Level 8	6	2437	9.10	10.50	1.380	100	1.000	-0.19	0.060	0.083
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	Ant 2	Reduced Power Level 8	6	2437	9.10	10.50	1.380	100	1.000	-0.14	0.073	0.101
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 8	6	2437	9.10	10.50	1.380	100	1.000	0.19	0.121	0.167
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	Ant 2	Reduced Power Level 8	6	2437	9.10	10.50	1.380	100	1.000	-0.15	0.112	0.155
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 8	1	2412	8.80	10.50	1.479	100	1.000	0.19	0.153	0.226
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	Ant 2	Reduced Power Level 8	11	2462	8.90	10.50	1.445	100	1.000	0.16	0.125	0.181



<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	802.11ac-VHT80 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 1/2	58	5290	19.26	21.00	1.493	100	1.000	0.14	0.261	0.390
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 1/2	58	5290	19.26	21.00	1.493	100	1.000	0.14	0.182	0.272
29	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 1/2	58	5290	19.26	21.00	1.493	100	1.000	0.11	0.715	1.067
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 1/2	58	5290	19.26	21.00	1.493	100	1.000	0.12	0.531	0.793
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 3/5/6	58	5290	17.26	19.00	1.493	100	1.000	-0.12	0.138	0.206
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 3/5/6	58	5290	17.26	19.00	1.493	100	1.000	-0.06	0.117	0.175
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 3/5/6	58	5290	17.26	19.00	1.493	100	1.000	0.05	0.402	0.600
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 3/5/6	58	5290	17.26	19.00	1.493	100	1.000	-0.17	0.311	0.464
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 4/7/8	58	5290	14.26	16.00	1.493	100	1.000	-0.18	0.078	0.116
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 4/7/8	58	5290	14.26	16.00	1.493	100	1.000	0.06	0.055	0.082
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 4/7/8	58	5290	14.26	16.00	1.493	100	1.000	0.16	0.170	0.254
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 4/7/8	58	5290	14.26	16.00	1.493	100	1.000	-0.12	0.152	0.227
	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 1/2	114	5570	19.49	20.00	1.125	100	1.000	-0.05	0.337	0.379
	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 1/2	114	5570	19.49	20.00	1.125	100	1.000	0.12	0.359	0.404
30	WLAN5.5GHz	802.11ax-HE160 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 1/2	114	5570	19.49	20.00	1.125	100	1.000	0	0.787	0.885
	WLAN5.5GHz	802.11ax-HE160 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 1/2	114	5570	19.49	20.00	1.125	100	1.000	-0.16	0.729	0.820
	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 3/5/6	114	5570	17.49	18.00	1.125	100	1.000	-0.02	0.202	0.227
	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 3/5/6	114	5570	17.49	18.00	1.125	100	1.000	0.05	0.215	0.242
	WLAN5.5GHz	802.11ax-HE160 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 3/5/6	114	5570	17.49	18.00	1.125	100	1.000	0.09	0.455	0.512
	WLAN5.5GHz	802.11ax-HE160 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 3/5/6	114	5570	17.49	18.00	1.125	100	1.000	0	0.447	0.503
	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 4/7/8	114	5570	13.49	14.00	1.125	100	1.000	0.15	0.083	0.093
	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 4/7/8	114	5570	13.49	14.00	1.125	100	1.000	-0.14	0.092	0.103
	WLAN5.5GHz	802.11ax-HE160 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 4/7/8	114	5570	13.49	14.00	1.125	100	1.000	-0.01	0.188	0.211
	WLAN5.5GHz	802.11ax-HE160 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 4/7/8	114	5570	13.49	14.00	1.125	100	1.000	-0.06	0.175	0.197
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 1/2	155	5775	17.18	19.00	1.521	100	1.000	0.17	0.149	0.227
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 1/2	155	5775	17.18	19.00	1.521	100	1.000	0.17	0.334	0.508
31	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 1/2	155	5775	17.18	19.00	1.521	100	1.000	0.12	0.729	1.108
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 1/2	155	5775	17.18	19.00	1.521	100	1.000	-0.13	0.659	1.002
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 3/5/6	155	5775	15.18	17.00	1.521	100	1.000	-0.17	0.091	0.138
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 3/5/6	155	5775	15.18	17.00	1.521	100	1.000	-0.15	0.202	0.307
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 3/5/6	155	5775	15.18	17.00	1.521	100	1.000	0	0.411	0.625
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 3/5/6	155	5775	15.18	17.00	1.521	100	1.000	-0.04	0.371	0.564
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	Ant 1+2	Reduced Power Level 4/7/8	155	5775	11.18	13.00	1.521	100	1.000	-0.19	0.038	0.058
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	Ant 1+2	Reduced Power Level 4/7/8	155	5775	11.18	13.00	1.521	100	1.000	0.01	0.082	0.125
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	Ant 1+2	Reduced Power Level 4/7/8	155	5775	11.18	13.00	1.521	100	1.000	0.16	0.133	0.202
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	Ant 1+2	Reduced Power Level 4/7/8	155	5775	11.18	13.00	1.521	100	1.000	0.14	0.115	0.175

<Bluetooth SAR>

Plot No.	Band	Mode	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)
	Bluetooth	DH5 1Mbps	Right Cheek	Reduced	39	2441	7.60	9.60	1.585	76.49	1.307	0.14	0.027	0.055
	Bluetooth	DH5 1Mbps	Right Tilted	Reduced	39	2441	7.60	9.60	1.585	76.49	1.307	-0.13	0.015	0.030
32	Bluetooth	DH5 1Mbps	Left Cheek	Reduced	39	2441	7.60	9.60	1.585	76.49	1.307	-0.14	0.137	0.284
	Bluetooth	DH5 1Mbps	Left Tilted	Reduced	39	2441	7.60	9.60	1.585	76.49	1.307	0.19	0.048	0.100
	Bluetooth	DH5 1Mbps	Left Cheek	Reduced	0	2402	6.30	8.30	1.585	76.49	1.307	0.15	0.112	0.232
	Bluetooth	DH5 1Mbps	Left Cheek	Reduced	78	2480	7.10	9.10	1.585	76.49	1.307	0.01	0.136	0.282





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(4 Tx slots)	Front	10mm	Full	128	824.2	28.01	28.50	1.119	0.18	0.220	0.246
	GSM850_UAT	GPRS(4 Tx slots)	Back	10mm	Full	128	824.2	28.01	28.50	1.119	-0.05	0.402	0.450
	GSM850_UAT	GPRS(4 Tx slots)	Left Side	10mm	Full	128	824.2	28.01	28.50	1.119	0.01	0.049	0.055
	GSM850_UAT	GPRS(4 Tx slots)	Right Side	10mm	Full	128	824.2	28.01	28.50	1.119	-0.07	0.148	0.166
	GSM850_UAT	GPRS(4 Tx slots)	Top Side	10mm	Full	128	824.2	28.01	28.50	1.119	0.01	0.209	0.234
33	GSM850_UAT	GPRS(4 Tx slots)	Back	10mm	Full	189	836.4	27.52	28.50	1.253	-0.08	0.434	0.544
	GSM850_UAT	GPRS(4 Tx slots)	Back	10mm	Full	251	848.8	27.95	28.50	1.135	0.12	0.447	0.507
	GSM850_LAT	GPRS(3Tx slots)	Front	10mm	Full	128	824.2	28.93	29.80	1.222	0.06	0.241	0.294
	GSM850_LAT	GPRS(3Tx slots)	Back	10mm	Full	128	824.2	28.93	29.80	1.222	0.03	0.331	0.404
	GSM850_LAT	GPRS(3Tx slots)	Right Side	10mm	Full	128	824.2	28.93	29.80	1.222	-0.09	0.355	0.434
	GSM850_LAT	GPRS(3Tx slots)	Bottom Side	10mm	Full	128	824.2	28.93	29.80	1.222	0.08	0.192	0.235
	GSM850_LAT	GPRS(3Tx slots)	Right Side	10mm	Full	189	836.4	28.91	29.80	1.227	0.16	0.361	0.443
	GSM850_LAT	GPRS(3Tx slots)	Right Side	10mm	Full	251	848.8	28.92	29.80	1.225	0.18	0.367	0.449
	GSM1900_UAT	GPRS(4 Tx slots)	Front	10mm	Full	512	1850.2	24.06	24.80	1.186	0.11	0.232	0.275
	GSM1900_UAT	GPRS(4 Tx slots)	Back	10mm	Full	512	1850.2	24.06	24.80	1.186	0.1	0.178	0.211
	GSM1900_UAT	GPRS(4 Tx slots)	Left Side	10mm	Full	512	1850.2	24.06	24.80	1.186	0.07	0.286	0.339
	GSM1900_UAT	GPRS(4 Tx slots)	Top Side	10mm	Full	512	1850.2	24.06	24.80	1.186	0.08	0.177	0.210
	GSM1900_UAT	GPRS(4 Tx slots)	Left Side	10mm	Full	661	1880	23.67	24.80	1.297	0.04	0.334	0.433
	GSM1900_UAT	GPRS(4 Tx slots)	Left Side	10mm	Full	810	1909.8	23.89	24.80	1.233	-0.03	0.350	0.432
	GSM1900_LAT	GPRS(4 Tx slots)	Front	10mm	Full	512	1850.2	25.17	25.80	1.156	-0.09	0.372	0.430
	GSM1900_LAT	GPRS(4 Tx slots)	Back	10mm	Full	512	1850.2	25.17	25.80	1.156	-0.05	0.472	0.546
	GSM1900_LAT	GPRS(4 Tx slots)	Left Side	10mm	Full	512	1850.2	25.17	25.80	1.156	0.12	0.175	0.202
	GSM1900_LAT	GPRS(4 Tx slots)	Bottom Side	10mm	Full	512	1850.2	25.17	25.80	1.156	-0.05	0.565	0.653
	GSM1900_LAT	GPRS(4 Tx slots)	Bottom Side	10mm	Full	661	1880	25.08	25.80	1.180	0.09	0.580	0.685
34	GSM1900_LAT	GPRS(4 Tx slots)	Bottom Side	10mm	Full	810	1909.8	25.02	25.80	1.197	-0.03	0.608	0.728



<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	Full	4182	836.4	24.04	24.80	1.191	-0.09	0.336	0.400
	WCDMA V_UAT	RMC 12.2Kbps	Back	10mm	Full	4182	836.4	24.04	24.80	1.191	0.14	0.494	0.588
	WCDMA V_UAT	RMC 12.2Kbps	Left Side	10mm	Full	4182	836.4	24.04	24.80	1.191	-0.12	0.073	0.087
	WCDMA V_UAT	RMC 12.2Kbps	Right Side	10mm	Full	4182	836.4	24.04	24.80	1.191	-0.14	0.164	0.195
	WCDMA V_UAT	RMC 12.2Kbps	Top Side	10mm	Full	4182	836.4	24.04	24.80	1.191	0.15	0.333	0.397
	WCDMA V_UAT	RMC 12.2Kbps	Back	10mm	Full	4132	826.4	23.97	24.80	1.211	0.17	0.344	0.416
35	WCDMA V_UAT	RMC 12.2Kbps	Back	10mm	Full	4233	846.6	23.96	24.80	1.213	0.03	0.547	<b>0.664</b>
	WCDMA V_LAT	RMC 12.2Kbps	Front	10mm	Full	4182	836.4	24.49	24.80	1.074	-0.1	0.331	0.355
	WCDMA V_LAT	RMC 12.2Kbps	Back	10mm	Full	4182	836.4	24.49	24.80	1.074	-0.08	0.395	0.424
	WCDMA V_LAT	RMC 12.2Kbps	Right Side	10mm	Full	4182	836.4	24.49	24.80	1.074	-0.09	0.534	0.574
	WCDMA V_LAT	RMC 12.2Kbps	Bottom Side	10mm	Full	4182	836.4	24.49	24.80	1.074	0.01	0.265	0.285
	WCDMA V_LAT	RMC 12.2Kbps	Right Side	10mm	Full	4132	826.4	24.47	24.80	1.079	0.11	0.498	0.537
	WCDMA V_LAT	RMC 12.2Kbps	Right Side	10mm	Full	4233	846.6	24.41	24.80	1.094	-0.13	0.508	0.556
	WCDMA IV_UAT	RMC 12.2Kbps	Front	10mm	Reduced	1413	1732.6	22.90	23.50	1.148	0.11	0.278	0.319
	WCDMA IV_UAT	RMC 12.2Kbps	Back	10mm	Reduced	1413	1732.6	22.90	23.50	1.148	0.15	0.323	0.371
36	WCDMA IV_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	1413	1732.6	22.90	23.50	1.148	-0.07	0.518	<b>0.595</b>
	WCDMA IV_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	1413	1732.6	22.90	23.50	1.148	-0.07	0.110	0.126
	WCDMA IV_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	1312	1712.4	22.74	23.50	1.191	-0.1	0.412	0.491
	WCDMA IV_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	1513	1752.6	22.89	23.50	1.151	0.09	0.467	0.537
	WCDMA IV_LAT	RMC 12.2Kbps	Front	10mm	Reduced	1413	1732.6	20.44	21.00	1.138	0.17	0.294	0.334
	WCDMA IV_LAT	RMC 12.2Kbps	Back	10mm	Reduced	1413	1732.6	20.44	21.00	1.138	-0.12	0.428	0.487
	WCDMA IV_LAT	RMC 12.2Kbps	Left Side	10mm	Reduced	1413	1732.6	20.44	21.00	1.138	0.06	0.137	0.156
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	1413	1732.6	20.44	21.00	1.138	0.15	0.471	0.536
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	1312	1712.4	20.32	21.00	1.169	-0.15	0.459	0.537
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	1513	1752.6	20.40	21.00	1.148	-0.1	0.495	0.568
	WCDMA II_UAT	RMC 12.2Kbps	Front	10mm	Reduced	9400	1880	22.32	23.20	1.225	0.15	0.297	0.364
	WCDMA II_UAT	RMC 12.2Kbps	Back	10mm	Reduced	9400	1880	22.32	23.20	1.225	0.05	0.266	0.326
	WCDMA II_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	9400	1880	22.32	23.20	1.225	0.08	0.481	0.589
	WCDMA II_UAT	RMC 12.2Kbps	Top Side	10mm	Reduced	9400	1880	22.32	23.20	1.225	0.05	0.233	0.285
	WCDMA II_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	9262	1852.4	22.21	23.20	1.256	0.09	0.352	0.442
37	WCDMA II_UAT	RMC 12.2Kbps	Left Side	10mm	Reduced	9538	1907.6	22.28	23.20	1.236	0.08	0.477	<b>0.590</b>
	WCDMA II_LAT	RMC 12.2Kbps	Front	10mm	Reduced	9400	1880	19.75	20.30	1.135	0.06	0.297	0.337
	WCDMA II_LAT	RMC 12.2Kbps	Back	10mm	Reduced	9400	1880	19.75	20.30	1.135	0.08	0.407	0.462
	WCDMA II_LAT	RMC 12.2Kbps	Left Side	10mm	Reduced	9400	1880	19.75	20.30	1.135	-0.03	0.165	0.187
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	9400	1880	19.75	20.30	1.135	0.03	0.458	0.520
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	9262	1852.4	19.66	20.30	1.159	-0.08	0.448	0.519
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	10mm	Reduced	9538	1907.6	19.74	20.30	1.138	-0.12	0.502	0.571



<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 BC10_UAT	RTAP 153.6Kbps	Front	10mm	Full	476	817.9	23.91	24.70	1.199	0.15	0.214	0.257
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Back	10mm	Full	476	817.9	23.91	24.70	1.199	0.17	0.292	0.350
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Left Side	10mm	Full	476	817.9	23.91	24.70	1.199	-0.01	0.046	0.055
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Right Side	10mm	Full	476	817.9	23.91	24.70	1.199	-0.16	0.071	0.085
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Top Side	10mm	Full	476	817.9	23.91	24.70	1.199	-0.19	0.185	0.222
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Back	10mm	Full	580	820.5	23.87	24.70	1.211	0.08	0.300	0.363
	CDMA2000 BC10_UAT	RTAP 153.6Kbps	Back	10mm	Full	684	823.1	23.83	24.70	1.222	-0.16	0.307	0.375
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Front	10mm	Full	476	817.9	23.82	24.80	1.253	0.08	0.255	0.320
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Back	10mm	Full	476	817.9	23.82	24.80	1.253	0.17	0.325	0.407
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Right Side	10mm	Full	476	817.9	23.82	24.80	1.253	0.09	0.402	0.504
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Full	476	817.9	23.82	24.80	1.253	-0.07	0.174	0.218
	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Right Side	10mm	Full	580	820.5	23.77	24.80	1.268	0.16	0.400	0.507
38	CDMA2000 BC10_LAT	RTAP 153.6Kbps	Right Side	10mm	Full	684	823.1	23.70	24.80	1.288	0.16	0.401	0.517
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Front	10mm	Full	384	836.52	23.84	24.80	1.247	0.1	0.277	0.346
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Back	10mm	Full	384	836.52	23.84	24.80	1.247	-0.06	0.371	0.463
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Left Side	10mm	Full	384	836.52	23.84	24.80	1.247	-0.03	0.052	0.065
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Right Side	10mm	Full	384	836.52	23.84	24.80	1.247	-0.04	0.103	0.128
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Top Side	10mm	Full	384	836.52	23.84	24.80	1.247	0.09	0.231	0.288
	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Back	10mm	Full	1013	824.7	23.76	24.80	1.271	-0.11	0.317	0.403
39	CDMA2000 BC0_UAT	RTAP 153.6Kbps	Back	10mm	Full	777	848.31	23.81	24.80	1.256	-0.19	0.427	0.536
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Front	10mm	Full	384	836.52	23.65	24.80	1.303	-0.05	0.276	0.360
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Back	10mm	Full	384	836.52	23.65	24.80	1.303	0.04	0.349	0.455
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Right Side	10mm	Full	384	836.52	23.65	24.80	1.303	-0.16	0.384	0.500
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Full	384	836.52	23.65	24.80	1.303	0.08	0.195	0.254
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Right Side	10mm	Full	1013	824.7	23.62	24.80	1.312	-0.09	0.391	0.513
	CDMA2000 BC0_LAT	RTAP 153.6Kbps	Right Side	10mm	Full	777	848.31	23.27	24.80	1.422	0.07	0.373	0.531
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Front	10mm	Reduced	600	1880	22.42	23.50	1.282	-0.02	0.409	0.524
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Back	10mm	Reduced	600	1880	22.42	23.50	1.282	0.17	0.343	0.440
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	600	1880	22.42	23.50	1.282	-0.13	0.496	0.636
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Top Side	10mm	Reduced	600	1880	22.42	23.50	1.282	-0.18	0.323	0.414
40	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	25	1851.25	22.38	23.50	1.294	-0.17	0.659	0.853
	CDMA2000 BC1_UAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	1175	1908.75	22.35	23.50	1.303	0.07	0.534	0.696
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Front	10mm	Reduced	600	1880	20.86	22.00	1.300	-0.07	0.392	0.510
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	10mm	Reduced	600	1880	20.86	22.00	1.300	-0.02	0.540	0.702
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Left Side	10mm	Reduced	600	1880	20.86	22.00	1.300	0.17	0.202	0.263
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	600	1880	20.86	22.00	1.300	0.01	0.587	0.763
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	25	1851.25	20.82	22.00	1.312	-0.11	0.582	0.764
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	10mm	Reduced	1175	1908.75	20.80	22.00	1.318	-0.19	0.621	0.819



<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 LTE Bands 71, 12, and 13 in UAT and LAT configurations.



**FCC SAR TEST REPORT**

Report No. : FA002801-07

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 5_UAT	10M	QPSK	1	49	Front	10mm	Full	20525	836.5	23.58	24.80	1.324	-0.03	0.332	0.440
44	LTE Band 5_UAT	10M	QPSK	1	49	Back	10mm	Full	20525	836.5	23.58	24.80	1.324	0.06	0.511	<b>0.677</b>
	LTE Band 5_UAT	10M	QPSK	1	49	Left Side	10mm	Full	20525	836.5	23.58	24.80	1.324	0.07	0.045	0.059
	LTE Band 5_UAT	10M	QPSK	1	49	Right Side	10mm	Full	20525	836.5	23.58	24.80	1.324	0.09	0.134	0.177
	LTE Band 5_UAT	10M	QPSK	1	49	Top Side	10mm	Full	20525	836.5	23.58	24.80	1.324	-0.1	0.332	0.440
	LTE Band 5_UAT	10M	QPSK	25	25	Front	10mm	Full	20525	836.5	22.59	23.80	1.321	-0.1	0.266	0.351
	LTE Band 5_UAT	10M	QPSK	25	25	Back	10mm	Full	20525	836.5	22.59	23.80	1.321	0.16	0.439	0.580
	LTE Band 5_UAT	10M	QPSK	25	25	Left Side	10mm	Full	20525	836.5	22.59	23.80	1.321	-0.09	0.059	0.078
	LTE Band 5_UAT	10M	QPSK	25	25	Right Side	10mm	Full	20525	836.5	22.59	23.80	1.321	-0.08	0.111	0.147
	LTE Band 5_UAT	10M	QPSK	25	25	Top Side	10mm	Full	20525	836.5	22.59	23.80	1.321	0.1	0.271	0.358
	LTE Band 5_LAT	10M	QPSK	1	49	Front	10mm	Full	20525	836.5	23.54	24.80	1.337	-0.16	0.303	0.405
	LTE Band 5_LAT	10M	QPSK	1	49	Back	10mm	Full	20525	836.5	23.54	24.80	1.337	0.16	0.390	0.521
	LTE Band 5_LAT	10M	QPSK	1	49	Right Side	10mm	Full	20525	836.5	23.54	24.80	1.337	0.1	0.424	0.567
	LTE Band 5_LAT	10M	QPSK	1	49	Bottom Side	10mm	Full	20525	836.5	23.54	24.80	1.337	0.01	0.250	0.334
	LTE Band 5_LAT	10M	QPSK	25	25	Front	10mm	Full	20525	836.5	22.59	23.80	1.321	-0.09	0.264	0.349
	LTE Band 5_LAT	10M	QPSK	25	25	Back	10mm	Full	20525	836.5	22.59	23.80	1.321	0.04	0.340	0.449
	LTE Band 5_LAT	10M	QPSK	25	25	Right Side	10mm	Full	20525	836.5	22.59	23.80	1.321	0	0.381	0.503
	LTE Band 5_LAT	10M	QPSK	25	25	Bottom Side	10mm	Full	20525	836.5	22.59	23.80	1.321	-0.09	0.208	0.275
	LTE Band 26_UAT	15M	QPSK	1	0	Front	10mm	Full	26965	841.5	23.71	24.80	1.285	0.04	0.274	0.352
45	LTE Band 26_UAT	15M	QPSK	1	0	Back	10mm	Full	26965	841.5	23.71	24.80	1.285	0.19	0.392	<b>0.504</b>
	LTE Band 26_UAT	15M	QPSK	1	0	Left Side	10mm	Full	26965	841.5	23.71	24.80	1.285	0.07	0.065	0.083
	LTE Band 26_UAT	15M	QPSK	1	0	Right Side	10mm	Full	26965	841.5	23.71	24.80	1.285	0.07	0.137	0.176
	LTE Band 26_UAT	15M	QPSK	1	0	Top Side	10mm	Full	26965	841.5	23.71	24.80	1.285	-0.07	0.274	0.352
	LTE Band 26_UAT	15M	QPSK	1	0	Back	10mm	Full	26765	821.5	23.63	24.80	1.309	0.18	0.339	0.444
	LTE Band 26_UAT	15M	QPSK	1	0	Back	10mm	Full	26865	831.5	23.59	24.80	1.321	0.04	0.366	0.484
	LTE Band 26_UAT	15M	QPSK	36	20	Front	10mm	Full	26965	841.5	22.81	23.80	1.256	-0.16	0.240	0.301
	LTE Band 26_UAT	15M	QPSK	36	20	Back	10mm	Full	26965	841.5	22.81	23.80	1.256	-0.11	0.361	0.453
	LTE Band 26_UAT	15M	QPSK	36	20	Left Side	10mm	Full	26965	841.5	22.81	23.80	1.256	-0.04	0.053	0.066
	LTE Band 26_UAT	15M	QPSK	36	20	Right Side	10mm	Full	26965	841.5	22.81	23.80	1.256	0.18	0.116	0.146
	LTE Band 26_UAT	15M	QPSK	36	20	Top Side	10mm	Full	26965	841.5	22.81	23.80	1.256	-0.09	0.225	0.283
	LTE Band 26_LAT	15M	QPSK	1	0	Front	10mm	Full	26965	841.5	23.69	24.80	1.291	-0.17	0.226	0.292
	LTE Band 26_LAT	15M	QPSK	1	0	Back	10mm	Full	26965	841.5	23.69	24.80	1.291	-0.02	0.287	0.371
	LTE Band 26_LAT	15M	QPSK	1	0	Right Side	10mm	Full	26965	841.5	23.69	24.80	1.291	0.18	0.349	0.451
	LTE Band 26_LAT	15M	QPSK	1	0	Bottom Side	10mm	Full	26965	841.5	23.69	24.80	1.291	-0.14	0.175	0.226
	LTE Band 26_LAT	15M	QPSK	1	0	Right Side	10mm	Full	26765	821.5	23.65	24.80	1.303	0.1	0.377	0.491
	LTE Band 26_LAT	15M	QPSK	1	0	Right Side	10mm	Full	26865	831.5	23.56	24.80	1.330	-0.16	0.365	0.486
	LTE Band 26_LAT	15M	QPSK	36	20	Front	10mm	Full	26965	841.5	22.77	23.80	1.268	0.11	0.195	0.247
	LTE Band 26_LAT	15M	QPSK	36	20	Back	10mm	Full	26965	841.5	22.77	23.80	1.268	-0.03	0.245	0.311
	LTE Band 26_LAT	15M	QPSK	36	20	Right Side	10mm	Full	26965	841.5	22.77	23.80	1.268	0.13	0.285	0.361
	LTE Band 26_LAT	15M	QPSK	36	20	Bottom Side	10mm	Full	26965	841.5	22.77	23.80	1.268	0.08	0.149	0.189



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	22.51	23.50	1.256	-0.01	0.274	0.344
	LTE Band 66_UAT	20M	QPSK	1	0	Back	10mm	Reduced	132322	1745	22.51	23.50	1.256	0.12	0.290	0.364
	LTE Band 66_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	132322	1745	22.51	23.50	1.256	-0.16	0.474	0.595
	LTE Band 66_UAT	20M	QPSK	1	0	Top Side	10mm	Reduced	132322	1745	22.51	23.50	1.256	-0.13	0.162	0.203
	LTE Band 66_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	132072	1720	22.35	23.50	1.303	-0.07	0.366	0.477
	LTE Band 66_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	132572	1770	22.45	23.50	1.274	0.11	0.595	0.758
	LTE Band 66_UAT	20M	QPSK	50	24	Front	10mm	Reduced	132322	1745	22.48	23.50	1.265	0.06	0.239	0.302
	LTE Band 66_UAT	20M	QPSK	50	24	Back	10mm	Reduced	132322	1745	22.48	23.50	1.265	-0.18	0.247	0.312
	LTE Band 66_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	132322	1745	22.48	23.50	1.265	-0.13	0.351	0.444
	LTE Band 66_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	132322	1745	22.48	23.50	1.265	0.12	0.146	0.185
	LTE Band 66_LAT	20M	QPSK	1	0	Front	10mm	Reduced	132322	1745	20.37	21.20	1.211	0.08	0.199	0.241
	LTE Band 66_LAT	20M	QPSK	1	0	Back	10mm	Reduced	132322	1745	20.37	21.20	1.211	0.07	0.328	0.397
	LTE Band 66_LAT	20M	QPSK	1	0	Left Side	10mm	Reduced	132322	1745	20.37	21.20	1.211	0.12	0.083	0.100
	LTE Band 66_LAT	20M	QPSK	1	0	Bottom Side	10mm	Reduced	132322	1745	20.37	21.20	1.211	-0.1	0.384	0.465
	LTE Band 66_LAT	20M	QPSK	50	24	Front	10mm	Reduced	132322	1745	20.35	21.20	1.216	0.09	0.206	0.251
	LTE Band 66_LAT	20M	QPSK	50	24	Back	10mm	Reduced	132322	1745	20.35	21.20	1.216	0.07	0.314	0.382
	LTE Band 66_LAT	20M	QPSK	50	24	Left Side	10mm	Reduced	132322	1745	20.35	21.20	1.216	-0.16	0.085	0.103
	LTE Band 66_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	132322	1745	20.35	21.20	1.216	-0.06	0.396	0.482
	LTE Band 66_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	132072	1720	20.12	21.20	1.282	0.13	0.329	0.422
	LTE Band 66_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	132572	1770	20.25	21.20	1.245	-0.1	0.429	0.534
EN-DC																
	LTE Band 66_Ant0	20M	QPSK	1	0	Front	10mm	Reduced	132322	1745	16.88	17.80	1.236	0.06	0.179	0.221
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	10mm	Reduced	132322	1745	16.88	17.80	1.236	0.01	0.339	0.419
	LTE Band 66_Ant0	20M	QPSK	1	0	Left Side	10mm	Reduced	132322	1745	16.88	17.80	1.236	0.12	0.000	0.000
	LTE Band 66_Ant0	20M	QPSK	1	0	Right Side	10mm	Reduced	132322	1745	16.88	17.80	1.236	-0.09	0.000	0.000
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	10mm	Reduced	132322	1745	16.88	17.80	1.236	0.04	0.464	0.573
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	10mm	Reduced	132072	1720	16.81	17.80	1.256	-0.17	0.347	0.436
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	10mm	Reduced	132572	1770	16.85	17.80	1.245	0.15	0.497	0.619
	LTE Band 66_Ant0	20M	QPSK	50	24	Front	10mm	Reduced	132322	1745	16.86	17.80	1.242	0.02	0.182	0.226
	LTE Band 66_Ant0	20M	QPSK	50	24	Back	10mm	Reduced	132322	1745	16.86	17.80	1.242	0.04	0.351	0.436
	LTE Band 66_Ant0	20M	QPSK	50	24	Left Side	10mm	Reduced	132322	1745	16.86	17.80	1.242	0	0.000	0.000
	LTE Band 66_Ant0	20M	QPSK	50	24	Right Side	10mm	Reduced	132322	1745	16.86	17.80	1.242	0.04	0.000	0.000
	LTE Band 66_Ant0	20M	QPSK	50	24	Top Side	10mm	Reduced	132322	1745	16.86	17.80	1.242	0.11	0.496	0.616
	LTE Band 66_Ant0	20M	QPSK	50	24	Top Side	10mm	Reduced	132072	1720	16.79	17.80	1.262	-0.03	0.400	0.505
46	LTE Band 66_Ant0	20M	QPSK	50	24	Top Side	10mm	Reduced	132572	1770	16.83	17.80	1.250	0.04	0.621	0.776
	LTE Band 66_Ant1	20M	QPSK	1	0	Front	10mm	Full	132322	1745	23.88	24.80	1.236	0.04	0.278	0.344
	LTE Band 66_Ant1	20M	QPSK	1	0	Back	10mm	Full	132322	1745	23.88	24.80	1.236	-0.07	0.337	0.417
	LTE Band 66_Ant1	20M	QPSK	1	0	Right Side	10mm	Full	132322	1745	23.88	24.80	1.236	0.02	0.249	0.308
	LTE Band 66_Ant1	20M	QPSK	1	0	Bottom Side	10mm	Full	132322	1745	23.88	24.80	1.236	-0.15	0.300	0.371
	LTE Band 66_Ant1	20M	QPSK	1	0	Back	10mm	Full	132072	1720	23.78	24.80	1.265	0.06	0.350	0.443
	LTE Band 66_Ant1	20M	QPSK	1	0	Back	10mm	Full	132572	1770	23.75	24.80	1.274	0.02	0.371	0.472
	LTE Band 66_Ant1	20M	QPSK	50	24	Front	10mm	Full	132322	1745	22.81	23.80	1.256	-0.17	0.221	0.278
	LTE Band 66_Ant1	20M	QPSK	50	24	Back	10mm	Full	132322	1745	22.81	23.80	1.256	0.03	0.262	0.329
	LTE Band 66_Ant1	20M	QPSK	50	24	Right Side	10mm	Full	132322	1745	22.81	23.80	1.256	-0.03	0.205	0.257
	LTE Band 66_Ant1	20M	QPSK	50	24	Bottom Side	10mm	Full	132322	1745	22.81	23.80	1.256	-0.05	0.236	0.296



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	49	Front	10mm	Reduced	26340	1880	22.51	23.50	1.256	-0.02	0.341	0.428
	LTE Band 25_UAT	20M	QPSK	1	49	Back	10mm	Reduced	26340	1880	22.51	23.50	1.256	0.11	0.343	0.431
	LTE Band 25_UAT	20M	QPSK	1	49	Left Side	10mm	Reduced	26340	1880	22.51	23.50	1.256	-0.12	0.605	0.760
	LTE Band 25_UAT	20M	QPSK	1	49	Top Side	10mm	Reduced	26340	1880	22.51	23.50	1.256	-0.09	0.194	0.244
47	LTE Band 25_UAT	20M	QPSK	1	49	Left Side	10mm	Reduced	26140	1860	22.35	23.50	1.303	0.09	0.592	0.771
	LTE Band 25_UAT	20M	QPSK	1	49	Left Side	10mm	Reduced	26590	1905	22.45	23.50	1.274	-0.12	0.453	0.577
	LTE Band 25_UAT	20M	QPSK	50	24	Front	10mm	Reduced	26340	1880	22.48	23.50	1.265	0.15	0.277	0.350
	LTE Band 25_UAT	20M	QPSK	50	24	Back	10mm	Reduced	26340	1880	22.48	23.50	1.265	-0.14	0.279	0.353
	LTE Band 25_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	26340	1880	22.48	23.50	1.265	0.17	0.391	0.495
	LTE Band 25_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	26340	1880	22.48	23.50	1.265	0.14	0.152	0.192
	LTE Band 25_UAT	20M	QPSK	100	0	Left Side	10mm	Reduced	26340	1880	22.45	23.50	1.274	-0.06	0.386	0.492
	LTE Band 25_LAT	20M	QPSK	1	49	Front	10mm	Reduced	26340	1880	19.83	20.80	1.250	-0.1	0.274	0.343
	LTE Band 25_LAT	20M	QPSK	1	49	Back	10mm	Reduced	26340	1880	19.83	20.80	1.250	0.06	0.341	0.426
	LTE Band 25_LAT	20M	QPSK	1	49	Left Side	10mm	Reduced	26340	1880	19.83	20.80	1.250	-0.19	0.145	0.181
	LTE Band 25_LAT	20M	QPSK	1	49	Bottom Side	10mm	Reduced	26340	1905	19.83	20.80	1.250	-0.15	0.358	0.448
	LTE Band 25_LAT	20M	QPSK	1	49	Bottom Side	10mm	Reduced	26140	1860	19.79	20.80	1.262	0.01	0.330	0.416
	LTE Band 25_LAT	20M	QPSK	1	49	Bottom Side	10mm	Reduced	26590	1905	19.79	20.80	1.262	0.09	0.419	0.529
	LTE Band 25_LAT	20M	QPSK	50	24	Front	10mm	Reduced	26590	1905	19.80	20.80	1.259	-0.11	0.278	0.350
	LTE Band 25_LAT	20M	QPSK	50	24	Back	10mm	Reduced	26590	1905	19.80	20.80	1.259	-0.12	0.346	0.436
	LTE Band 25_LAT	20M	QPSK	50	24	Left Side	10mm	Reduced	26590	1905	19.80	20.80	1.259	-0.08	0.140	0.176
	LTE Band 25_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	26590	1905	19.80	20.80	1.259	0.1	0.349	0.439
	LTE Band 30_UAT	10M	QPSK	1	25	Front	10mm	Reduced	27710	2310	21.32	22.00	1.169	-0.02	0.421	0.492
	LTE Band 30_UAT	10M	QPSK	1	25	Back	10mm	Reduced	27710	2310	21.32	22.00	1.169	-0.12	0.616	0.720
48	LTE Band 30_UAT	10M	QPSK	1	25	Left Side	10mm	Reduced	27710	2310	21.32	22.00	1.169	-0.11	0.744	0.870
	LTE Band 30_UAT	10M	QPSK	1	25	Top Side	10mm	Reduced	27710	2310	21.32	22.00	1.169	-0.18	0.174	0.203
	LTE Band 30_UAT	10M	QPSK	25	12	Front	10mm	Reduced	27710	2310	21.28	22.00	1.180	0.11	0.343	0.405
	LTE Band 30_UAT	10M	QPSK	25	12	Back	10mm	Reduced	27710	2310	21.28	22.00	1.180	0	0.367	0.433
	LTE Band 30_UAT	10M	QPSK	25	12	Left Side	10mm	Reduced	27710	2310	21.28	22.00	1.180	0	0.573	0.676
	LTE Band 30_UAT	10M	QPSK	25	12	Top Side	10mm	Reduced	27710	2310	21.28	22.00	1.180	0.03	0.140	0.165
	LTE Band 30_UAT	10M	QPSK	50	0	Left Side	10mm	Reduced	27710	2310	21.25	22.00	1.189	0.13	0.370	0.440
	LTE Band 30_LAT	10M	QPSK	1	25	Front	10mm	Reduced	27710	2310	20.85	21.70	1.216	-0.1	0.303	0.369
	LTE Band 30_LAT	10M	QPSK	1	25	Back	10mm	Reduced	27710	2310	20.85	21.70	1.216	-0.02	0.552	0.671
	LTE Band 30_LAT	10M	QPSK	1	25	Left Side	10mm	Reduced	27710	2310	20.85	21.70	1.216	-0.11	0.168	0.204
	LTE Band 30_LAT	10M	QPSK	1	25	Bottom Side	10mm	Reduced	27710	2310	20.85	21.70	1.216	0.19	0.564	0.686
	LTE Band 30_LAT	10M	QPSK	25	12	Front	10mm	Reduced	27710	2310	20.83	21.70	1.222	0.13	0.318	0.389
	LTE Band 30_LAT	10M	QPSK	25	12	Back	10mm	Reduced	27710	2310	20.83	21.70	1.222	-0.02	0.564	0.689
	LTE Band 30_LAT	10M	QPSK	25	12	Left Side	10mm	Reduced	27710	2310	20.83	21.70	1.222	-0.15	0.173	0.211
	LTE Band 30_LAT	10M	QPSK	25	12	Bottom Side	10mm	Reduced	27710	2310	20.83	21.70	1.222	0.11	0.567	0.693
	LTE Band 30_LAT	10M	QPSK	50	0	Bottom Side	10mm	Reduced	27710	2310	20.80	21.70	1.230	0.16	0.592	0.728



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 7_UAT	20M	QPSK	1	99	Front	10mm	Reduced	21100	2535	18.27	19.00	1.183	-0.09	0.320	0.379
	LTE Band 7_UAT	20M	QPSK	1	99	Back	10mm	Reduced	21100	2535	18.27	19.00	1.183	-0.08	0.535	0.633
	LTE Band 7_UAT	20M	QPSK	1	99	Left Side	10mm	Reduced	21100	2535	18.27	19.00	1.183	-0.1	0.698	0.826
	LTE Band 7_UAT	20M	QPSK	1	99	Top Side	10mm	Reduced	21100	2535	18.27	19.00	1.183	-0.1	0.073	0.086
	LTE Band 7_UAT	20M	QPSK	1	99	Left Side	10mm	Reduced	20850	2510	18.25	19.00	1.189	0.01	0.603	0.717
	LTE Band 7_UAT	20M	QPSK	1	99	Left Side	10mm	Reduced	21350	2560	18.16	19.00	1.213	0.11	0.721	0.875
	LTE Band 7_UAT	20M	QPSK	50	24	Front	10mm	Reduced	21100	2535	18.25	19.00	1.189	0.16	0.325	0.386
	LTE Band 7_UAT	20M	QPSK	50	24	Back	10mm	Reduced	21100	2535	18.25	19.00	1.189	0.11	0.547	0.650
	LTE Band 7_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	21100	2535	18.25	19.00	1.189	-0.15	0.703	0.836
	LTE Band 7_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	21100	2535	18.25	19.00	1.189	0.03	0.079	0.094
	LTE Band 7_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	20850	2510	18.22	19.00	1.197	-0.18	0.830	0.993
49	LTE Band 7_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	21350	2560	18.13	19.00	1.222	0.01	0.946	1.156
	LTE Band 7_UAT	20M	QPSK	100	0	Left Side	10mm	Reduced	21100	2535	18.23	19.00	1.194	-0.18	0.692	0.826
	LTE Band 7_LAT	20M	QPSK	1	99	Front	10mm	Reduced	21100	2535	20.21	21.00	1.199	-0.18	0.303	0.363
	LTE Band 7_LAT	20M	QPSK	1	99	Back	10mm	Reduced	21100	2535	20.21	21.00	1.199	0.09	0.514	0.617
	LTE Band 7_LAT	20M	QPSK	1	99	Left Side	10mm	Reduced	21100	2535	20.21	21.00	1.199	-0.07	0.136	0.163
	LTE Band 7_LAT	20M	QPSK	1	99	Bottom Side	10mm	Reduced	21100	2535	20.21	21.00	1.199	0.02	0.478	0.573
	LTE Band 7_LAT	20M	QPSK	50	24	Front	10mm	Reduced	21100	2535	20.18	21.00	1.208	0.15	0.316	0.382
	LTE Band 7_LAT	20M	QPSK	50	24	Back	10mm	Reduced	21100	2535	20.18	21.00	1.208	0.08	0.526	0.635
	LTE Band 7_LAT	20M	QPSK	50	24	Left Side	10mm	Reduced	21100	2535	20.18	21.00	1.208	0.11	0.149	0.180
	LTE Band 7_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	21100	2535	20.18	21.00	1.208	0.04	0.584	0.705
	LTE Band 7_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	20850	2510	20.16	21.00	1.213	0.15	0.497	0.603
	LTE Band 7_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	21350	2560	20.08	21.00	1.236	0.03	0.472	0.583
EN-DC																
	LTE Band 7_Ant0	20M	QPSK	1	99	Front	10mm	Reduced	21100	2535	16.26	17.00	1.186	-0.16	0.227	0.269
	LTE Band 7_Ant0	20M	QPSK	1	99	Back	10mm	Reduced	21100	2535	16.26	17.00	1.186	-0.11	0.399	0.473
	LTE Band 7_Ant0	20M	QPSK	1	99	Left Side	10mm	Reduced	21100	2535	16.26	17.00	1.186	0.02	0.153	0.181
	LTE Band 7_Ant0	20M	QPSK	1	99	Right Side	10mm	Reduced	21100	2535	16.26	17.00	1.186	-0.16	0.050	0.059
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	10mm	Reduced	21100	2535	16.26	17.00	1.186	0.06	0.688	0.816
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	10mm	Reduced	20850	2510	16.17	17.00	1.211	0.01	0.665	0.805
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	10mm	Reduced	21350	2560	16.20	17.00	1.202	-0.05	0.663	0.797
	LTE Band 7_Ant0	20M	QPSK	50	24	Front	10mm	Reduced	21100	2535	16.24	17.00	1.191	0.03	0.234	0.279
	LTE Band 7_Ant0	20M	QPSK	50	24	Back	10mm	Reduced	21100	2535	16.24	17.00	1.191	-0.07	0.417	0.497
	LTE Band 7_Ant0	20M	QPSK	50	24	Left Side	10mm	Reduced	21100	2535	16.24	17.00	1.191	-0.14	0.164	0.195
	LTE Band 7_Ant0	20M	QPSK	50	24	Right Side	10mm	Reduced	21100	2535	16.24	17.00	1.191	0.05	0.072	0.086
	LTE Band 7_Ant0	20M	QPSK	50	24	Top Side	10mm	Reduced	21100	2535	16.24	17.00	1.191	-0.06	0.681	0.811
	LTE Band 7_Ant0	20M	QPSK	50	24	Top Side	10mm	Reduced	20850	2510	16.13	17.00	1.222	0.05	0.674	0.823
	LTE Band 7_Ant0	20M	QPSK	50	24	Top Side	10mm	Reduced	21350	2560	16.17	17.00	1.211	0.01	0.657	0.795
	LTE Band 7_Ant0	20M	QPSK	100	0	Top Side	10mm	Reduced	21100	2535	16.21	17.00	1.199	-0.03	0.683	0.819
	LTE Band 7_Ant1	20M	QPSK	1	99	Front	10mm	Full	21100	2535	24.18	24.80	1.153	0.04	0.270	0.311
	LTE Band 7_Ant1	20M	QPSK	1	99	Back	10mm	Full	21100	2535	24.18	24.80	1.153	-0.02	0.196	0.226
	LTE Band 7_Ant1	20M	QPSK	1	99	Right Side	10mm	Full	21100	2535	24.18	24.80	1.153	-0.11	0.130	0.150
	LTE Band 7_Ant1	20M	QPSK	1	99	Bottom Side	10mm	Full	21100	2535	24.18	24.80	1.153	-0.08	0.190	0.219
	LTE Band 7_Ant1	20M	QPSK	1	99	Front	10mm	Full	20850	2510	24.15	24.80	1.161	0.07	0.328	0.381
	LTE Band 7_Ant1	20M	QPSK	1	99	Front	10mm	Full	21350	2560	24.00	24.80	1.202	0.01	0.331	0.398
	LTE Band 7_Ant1	20M	QPSK	50	24	Front	10mm	Full	21100	2535	23.26	23.80	1.132	0.05	0.215	0.243
	LTE Band 7_Ant1	20M	QPSK	50	24	Back	10mm	Full	21100	2535	23.26	23.80	1.132	-0.08	0.155	0.176
	LTE Band 7_Ant1	20M	QPSK	50	24	Right Side	10mm	Full	21100	2535	23.26	23.80	1.132	-0.04	0.104	0.118
	LTE Band 7_Ant1	20M	QPSK	50	24	Bottom Side	10mm	Full	21100	2535	23.26	23.80	1.132	0.05	0.153	0.173





<TDD 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, Duty Cycle %, Duty Cycle Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg)



**FCC SAR TEST REPORT**

**Report No. : FA002801-07**

LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Front	10mm	Reduced	40185	2549.5	21.85	22.40	1.135	42.9	1.009	-0.14	0.357	0.409
LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Back	10mm	Reduced	40185	2549.5	21.85	22.40	1.135	42.9	1.009	0.06	0.522	0.598
LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	40185	2549.5	21.85	22.40	1.135	42.9	1.009	0.05	0.757	0.867
LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Top Side	10mm	Reduced	40185	2549.5	21.85	22.40	1.135	42.9	1.009	0.1	0.053	0.061
LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	39750	2506	21.75	22.40	1.161	42.9	1.009	0.14	0.630	0.738
LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	40620	2593	21.75	22.40	1.161	42.9	1.009	-0.07	0.711	0.833
LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	41055	2636.5	21.78	22.40	1.153	42.9	1.009	-0.06	0.987	1.149
LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	41490	2680	21.80	22.40	1.148	42.9	1.009	0	0.726	0.841
LTE Band 41C(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	40185(PCC)+40383(SCC)	2549.5(PCC)+2569.3(SCC)	17.84	18.40	1.138	42.9	1.009	0.12	0.380	0.436
LTE Band 41C(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	39750(PCC)+39948(SCC)	2506(PCC)+2525.8(SCC)	17.79	18.40	1.151	42.9	1.009	0.13	0.362	0.420
LTE Band 41C(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	40620(PCC)+40422(SCC)	2593(PCC)+2573.2(SCC)	17.68	18.40	1.180	42.9	1.009	0.01	0.381	0.454
LTE Band 41C(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	41055(PCC)+40857(SCC)	2636.5(PCC)+2616.7(SCC)	17.80	18.40	1.148	42.9	1.009	-0.04	0.419	0.485
LTE Band 41C(HPUE)_UAT	20M	QPSK	50	24	Left Side	10mm	Reduced	41490(PCC)+41292(SCC)	2680(PCC)+2660.2(SCC)	17.70	18.40	1.175	42.9	1.009	-0.18	0.431	0.511
LTE Band 41(HPUE)_LAT	20M	QPSK	100	0	Left Side	10mm	Reduced	40185	2549.5	21.83	22.40	1.140	42.9	1.009	0.03	0.703	0.809
LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Front	10mm	Reduced	40185	2549.5	24.14	24.70	1.138	42.9	1.009	-0.11	0.298	0.342
LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Back	10mm	Reduced	40185	2549.5	24.14	24.70	1.138	42.9	1.009	0.16	0.450	0.517
LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Left Side	10mm	Reduced	40185	2549.5	24.14	24.70	1.138	42.9	1.009	0.18	0.101	0.116
LTE Band 41(HPUE)_LAT	20M	QPSK	1	99	Bottom Side	10mm	Reduced	40185	2549.5	24.14	24.70	1.138	42.9	1.009	0.19	0.457	0.525
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Front	10mm	Reduced	40185	2549.5	24.11	24.70	1.146	42.9	1.009	0.11	0.326	0.377
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Back	10mm	Reduced	40185	2549.5	24.11	24.70	1.146	42.9	1.009	-0.01	0.475	0.549
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Left Side	10mm	Reduced	40185	2549.5	24.11	24.70	1.146	42.9	1.009	-0.13	0.113	0.131
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	40185	2549.5	24.11	24.70	1.146	42.9	1.009	0.03	0.491	0.568
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	39750	2506	23.99	24.70	1.178	42.9	1.009	-0.12	0.477	0.567
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	40620	2593	23.98	24.70	1.180	42.9	1.009	-0.07	0.468	0.557
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	41055	2636.5	24.07	24.70	1.156	42.9	1.009	0.17	0.433	0.505
LTE Band 41(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	41490	2680	24.04	24.70	1.164	42.9	1.009	0.05	0.372	0.437
LTE Band 41(HPUE)_LAT	20M	QPSK	100	0	Bottom Side	10mm	Reduced	40185	2549.5	24.09	24.70	1.151	42.9	1.009	0.07	0.300	0.348
LTE Band 41C(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	40185(PCC)+40383(SCC)	2549.5(PCC)+2569.3(SCC)	21.30	21.90	1.148	42.9	1.009	0.03	0.233	0.270
LTE Band 41C(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	39750(PCC)+39948(SCC)	2506(PCC)+2525.8(SCC)	21.20	21.90	1.175	42.9	1.009	-0.12	0.244	0.289
LTE Band 41C(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	40620(PCC)+40422(SCC)	2593(PCC)+2573.2(SCC)	21.29	21.90	1.151	42.9	1.009	-0.07	0.239	0.278
LTE Band 41C(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	41055(PCC)+40857(SCC)	2636.5(PCC)+2616.7(SCC)	21.19	21.90	1.178	42.9	1.009	-0.06	0.228	0.271
LTE Band 41C(HPUE)_LAT	20M	QPSK	50	24	Bottom Side	10mm	Reduced	41490(PCC)+41292(SCC)	2680(PCC)+2660.2(SCC)	21.28	21.90	1.153	42.9	1.009	-0.07	0.231	0.269



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	10mm	Reduced	56640	3690	23.12	24.00	1.225	62.9	1.006	0.03	0.376	0.463
	LTE Band 48_UAT	20M	QPSK	1	0	Back	10mm	Reduced	56640	3690	23.12	24.00	1.225	62.9	1.006	0.18	0.499	0.615
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	56640	3690	23.12	24.00	1.225	62.9	1.006	-0.02	0.773	0.952
	LTE Band 48_UAT	20M	QPSK	1	0	Top Side	10mm	Reduced	56640	3690	23.12	24.00	1.225	62.9	1.006	-0.07	0.107	0.132
	LTE Band 48_UAT	20M	QPSK	1	0	Back	10mm	Reduced	55340	3560	23.06	24.00	1.242	62.9	1.006	-0.15	0.351	0.438
	LTE Band 48_UAT	20M	QPSK	1	0	Back	10mm	Reduced	55830	3609	23.07	24.00	1.239	62.9	1.006	-0.03	0.431	0.537
	LTE Band 48_UAT	20M	QPSK	1	0	Back	10mm	Reduced	56150	3641	22.94	24.00	1.276	62.9	1.006	-0.06	0.462	0.593
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	55340	3560	23.06	24.00	1.242	62.9	1.006	-0.07	0.542	0.677
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	55830	3609	23.07	24.00	1.239	62.9	1.006	-0.1	0.659	0.821
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	10mm	Reduced	56150	3641	22.94	24.00	1.276	62.9	1.006	-0.12	0.721	0.926
	LTE Band 48_UAT	20M	QPSK	50	0	Front	10mm	Reduced	56640	3690	23.08	24.00	1.236	62.9	1.006	-0.15	0.411	0.511
	LTE Band 48_UAT	20M	QPSK	50	0	Back	10mm	Reduced	56640	3690	23.08	24.00	1.236	62.9	1.006	-0.06	0.517	0.643
51	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	56640	3690	23.08	24.00	1.236	62.9	1.006	0.18	0.817	1.016
	LTE Band 48_UAT	20M	QPSK	50	0	Top Side	10mm	Reduced	56640	3690	23.08	24.00	1.236	62.9	1.006	0.15	0.117	0.145
	LTE Band 48_UAT	20M	QPSK	50	0	Back	10mm	Reduced	55340	3560	23.04	24.00	1.247	62.9	1.006	0.16	0.380	0.477
	LTE Band 48_UAT	20M	QPSK	50	0	Back	10mm	Reduced	55830	3609	23.05	24.00	1.245	62.9	1.006	-0.08	0.463	0.580
	LTE Band 48_UAT	20M	QPSK	50	0	Back	10mm	Reduced	56150	3641	22.91	24.00	1.285	62.9	1.006	-0.04	0.499	0.645
	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	55340	3560	23.04	24.00	1.247	62.9	1.006	0.19	0.593	0.744
	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	55830	3609	23.05	24.00	1.245	62.9	1.006	0.16	0.714	0.894
	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	56150	3641	22.91	24.00	1.285	62.9	1.006	-0.06	0.768	0.993
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	56640(PCC)+ 56442(SCC)	3690(PCC)+3670.2(SCC)	19.60	20.50	1.230	62.9	1.006	0.12	0.414	0.512
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	55340(PCC)+ 55538(SCC)	3560(PCC)+3579.8(SCC)	19.58	20.50	1.236	62.9	1.006	0.13	0.358	0.445
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	55830(PCC)+ 55632(SCC)	3609(PCC)+3589.2(SCC)	19.53	20.50	1.250	62.9	1.006	0.02	0.388	0.488
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	10mm	Reduced	56150(PCC)+ 55952(SCC)	3641(PCC)+3621.2(SCC)	19.50	20.50	1.259	62.9	1.006	0.01	0.433	0.548
	LTE Band 48_UAT	20M	QPSK	100	0	Back	10mm	Reduced	56640	3690	23.05	24.00	1.245	62.9	1.006	0.03	0.512	0.641
	LTE Band 48_UAT	20M	QPSK	100	0	Left Side	10mm	Reduced	56640	3690	23.05	24.00	1.245	62.9	1.006	0.06	0.786	0.984



<5G NR 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)
	N71_Ant0	20M	BPSK	1	1	DFT-15	Front	10mm	Full	136100	680.5	23.96	24.80	1.213	-0.16	0.143	0.174
	N71_Ant0	20M	BPSK	1	1	DFT-15	Back	10mm	Full	136100	680.5	23.96	24.80	1.213	-0.02	0.194	0.235
	N71_Ant0	20M	BPSK	1	1	DFT-15	Left Side	10mm	Full	136100	680.5	23.96	24.80	1.213	-0.03	0.108	0.131
	N71_Ant0	20M	BPSK	1	1	DFT-15	Right Side	10mm	Full	136100	680.5	23.96	24.80	1.213	0.14	0.097	0.117
	N71_Ant0	20M	BPSK	1	1	DFT-15	Top Side	10mm	Full	136100	680.5	23.96	24.80	1.213	0.19	0.159	0.193
	N71_Ant0	20M	BPSK	50	28	DFT-15	Front	10mm	Full	136100	680.5	23.90	24.80	1.230	-0.05	0.110	0.135
	N71_Ant0	20M	BPSK	50	28	DFT-15	Back	10mm	Full	136100	680.5	23.90	24.80	1.230	-0.14	0.174	0.214
	N71_Ant0	20M	BPSK	50	28	DFT-15	Left Side	10mm	Full	136100	680.5	23.90	24.80	1.230	-0.03	0.083	0.102
	N71_Ant0	20M	BPSK	50	28	DFT-15	Right Side	10mm	Full	136100	680.5	23.90	24.80	1.230	0.1	0.079	0.097
	N71_Ant0	20M	BPSK	50	28	DFT-15	Top Side	10mm	Full	136100	680.5	23.90	24.80	1.230	0.12	0.127	0.156
	N71_Ant1	20M	BPSK	1	1	DFT-15	Front	10mm	Full	136100	680.5	24.08	24.80	1.180	0	0.097	0.114
	N71_Ant1	20M	BPSK	1	1	DFT-15	Back	10mm	Full	136100	680.5	24.08	24.80	1.180	-0.14	0.140	0.165
52	N71_Ant1	20M	BPSK	1	1	DFT-15	Right Side	10mm	Full	136100	680.5	24.08	24.80	1.180	0.18	0.269	0.318
	N71_Ant1	20M	BPSK	1	1	DFT-15	Bottom Side	10mm	Full	136100	680.5	24.08	24.80	1.180	0.11	0.093	0.110
	N71_Ant1	20M	BPSK	50	28	DFT-15	Front	10mm	Full	136100	680.5	24.02	24.80	1.197	-0.16	0.094	0.112
	N71_Ant1	20M	BPSK	50	28	DFT-15	Back	10mm	Full	136100	680.5	24.02	24.80	1.197	-0.11	0.131	0.157
	N71_Ant1	20M	BPSK	50	28	DFT-15	Right Side	10mm	Full	136100	680.5	24.02	24.80	1.197	-0.09	0.242	0.290
	N71_Ant1	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Full	136100	680.5	24.02	24.80	1.197	-0.01	0.084	0.101
	N5_Ant0	20M	BPSK	1	1	DFT-15	Front	10mm	Full	167300	836.5	23.66	24.30	1.159	-0.05	0.140	0.162
	N5_Ant0	20M	BPSK	1	1	DFT-15	Back	10mm	Full	167300	836.5	23.66	24.30	1.159	-0.04	0.203	0.235
	N5_Ant0	20M	BPSK	1	1	DFT-15	Left Side	10mm	Full	167300	836.5	23.66	24.30	1.159	-0.17	0.000	0.000
	N5_Ant0	20M	BPSK	1	1	DFT-15	Right Side	10mm	Full	167300	836.5	23.66	24.30	1.159	-0.1	0.057	0.066
	N5_Ant0	20M	BPSK	1	1	DFT-15	Top Side	10mm	Full	167300	836.5	23.66	24.30	1.159	0.19	0.127	0.147
	N5_Ant0	20M	BPSK	50	28	DFT-15	Front	10mm	Full	167300	836.5	23.61	24.30	1.172	-0.03	0.082	0.096
	N5_Ant0	20M	BPSK	50	28	DFT-15	Back	10mm	Full	167300	836.5	23.61	24.30	1.172	0.08	0.108	0.127
	N5_Ant0	20M	BPSK	50	28	DFT-15	Left Side	10mm	Full	167300	836.5	23.61	24.30	1.172	0.19	0.000	0.000
	N5_Ant0	20M	BPSK	50	28	DFT-15	Right Side	10mm	Full	167300	836.5	23.61	24.30	1.172	0.16	0.000	0.000
	N5_Ant0	20M	BPSK	50	28	DFT-15	Top Side	10mm	Full	167300	836.5	23.61	24.30	1.172	0.06	0.071	0.083
	N5_Ant1	20M	BPSK	1	1	DFT-15	Front	10mm	Full	167300	836.5	23.75	24.30	1.135	0.07	0.187	0.212
	N5_Ant1	20M	BPSK	1	1	DFT-15	Back	10mm	Full	167300	836.5	23.75	24.30	1.135	0.15	0.264	0.300
53	N5_Ant1	20M	BPSK	1	1	DFT-15	Right Side	10mm	Full	167300	836.5	23.75	24.30	1.135	0.17	0.271	0.308
	N5_Ant1	20M	BPSK	1	1	DFT-15	Bottom Side	10mm	Full	167300	836.5	23.75	24.30	1.135	0.1	0.136	0.154
	N5_Ant1	20M	BPSK	50	28	DFT-15	Front	10mm	Full	167300	836.5	23.70	24.30	1.148	0.1	0.099	0.114
	N5_Ant1	20M	BPSK	50	28	DFT-15	Back	10mm	Full	167300	836.5	23.70	24.30	1.148	-0.08	0.105	0.121
	N5_Ant1	20M	BPSK	50	28	DFT-15	Right Side	10mm	Full	167300	836.5	23.70	24.30	1.148	0.11	0.138	0.158
	N5_Ant1	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Full	167300	836.5	23.70	24.30	1.148	-0.13	0.069	0.079



**FCC SAR TEST REPORT**

Report No. : FA002801-07

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)
	N66_Ant2	20M	BPSK	1	1	DFT-15	Front	10mm	Reduced	349000	1745	23.71	24.40	1.172	0.11	0.461	0.540
	N66_Ant2	20M	BPSK	1	1	DFT-15	Back	10mm	Reduced	349000	1745	23.71	24.40	1.172	-0.19	0.493	0.578
	N66_Ant2	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	349000	1745	23.71	24.40	1.172	-0.19	0.627	0.735
	N66_Ant2	20M	BPSK	1	1	DFT-15	Top Side	10mm	Reduced	349000	1745	23.71	24.40	1.172	-0.04	0.160	0.188
	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	344000	1720	23.65	24.40	1.189	-0.06	0.630	0.749
	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	354000	1770	23.68	24.40	1.180	0.17	0.691	0.816
	N66_Ant2	20M	BPSK	50	28	DFT-15	Front	10mm	Reduced	349000	1745	23.69	24.40	1.178	0.1	0.473	0.557
	N66_Ant2	20M	BPSK	50	28	DFT-15	Back	10mm	Reduced	349000	1745	23.69	24.40	1.178	0.11	0.511	0.602
	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	349000	1745	23.69	24.40	1.178	-0.16	0.866	1.020
	N66_Ant2	20M	BPSK	50	28	DFT-15	Top Side	10mm	Reduced	349000	1745	23.69	24.40	1.178	-0.09	0.186	0.219
	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	344000	1720	23.57	24.40	1.211	-0.05	0.748	0.906
54	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	354000	1770	23.60	24.40	1.202	-0.08	0.961	<b>1.155</b>
	N66_Ant2	20M	BPSK	100	0	DFT-15	Left Side	10mm	Reduced	349000	1745	23.68	24.40	1.180	0.07	0.918	1.084
	N66_Ant3	20M	BPSK	1	1	DFT-15	Front	10mm	Reduced	349000	1745	20.14	21.00	1.219	0.06	0.287	0.350
	N66_Ant3	20M	BPSK	1	1	DFT-15	Back	10mm	Reduced	349000	1745	20.14	21.00	1.219	0.07	0.360	0.439
	N66_Ant3	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	349000	1745	20.14	21.00	1.219	0.06	0.127	0.155
	N66_Ant3	20M	BPSK	1	1	DFT-15	Bottom Side	10mm	Reduced	349000	1745	20.14	21.00	1.219	-0.07	0.397	0.484
	N66_Ant3	20M	BPSK	50	28	DFT-15	Front	10mm	Reduced	349000	1745	20.11	21.00	1.227	0.16	0.283	0.347
	N66_Ant3	20M	BPSK	50	28	DFT-15	Back	10mm	Reduced	349000	1745	20.11	21.00	1.227	-0.14	0.370	0.454
	N66_Ant3	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	349000	1745	20.11	21.00	1.227	0.16	0.110	0.135
	N66_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	349000	1745	20.11	21.00	1.227	0.01	0.400	0.491
	N66_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	344000	1720	20.05	21.00	1.245	0.18	0.357	0.444
	N66_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	354000	1770	20.00	21.00	1.259	-0.03	0.301	0.379
EN-DC																	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Front	10mm	Reduced	349000	1745	19.21	20.20	1.256	0.07	0.283	0.355
	N66_Ant0	20M	BPSK	1	1	DFT-15	Back	10mm	Reduced	349000	1745	19.21	20.20	1.256	0.07	0.531	0.667
	N66_Ant0	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	349000	1745	19.21	20.20	1.256	-	n/a	n/a
	N66_Ant0	20M	BPSK	1	1	DFT-15	Right Side	10mm	Reduced	349000	1745	19.21	20.20	1.256	-	n/a	n/a
	N66_Ant0	20M	BPSK	1	1	DFT-15	Top Side	10mm	Reduced	349000	1745	19.21	20.20	1.256	0.05	0.635	0.798
	N66_Ant0	20M	BPSK	1	1	DFT-15	Top Side	10mm	Reduced	344000	1720	19.18	20.20	1.265	-0.19	0.637	0.806
	N66_Ant0	20M	BPSK	1	1	DFT-15	Top Side	10mm	Reduced	354000	1770	19.10	20.20	1.288	-0.05	0.623	0.803
	N66_Ant0	20M	BPSK	50	28	DFT-15	Front	10mm	Reduced	349000	1745	19.18	20.20	1.265	-0.1	0.313	0.396
	N66_Ant0	20M	BPSK	50	28	DFT-15	Back	10mm	Reduced	349000	1745	19.18	20.20	1.265	0.03	0.568	0.718
	N66_Ant0	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	349000	1745	19.18	20.20	1.265	-	n/a	n/a
	N66_Ant0	20M	BPSK	50	28	DFT-15	Right Side	10mm	Reduced	349000	1745	19.18	20.20	1.265	-	n/a	n/a
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	10mm	Reduced	349000	1745	19.18	20.20	1.265	0.05	0.661	0.836
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	10mm	Reduced	344000	1720	19.15	20.20	1.274	0.02	0.633	0.806
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	10mm	Reduced	354000	1770	19.09	20.20	1.291	0.05	0.640	0.826
	N66_Ant0	20M	BPSK	100	0	DFT-15	Top Side	10mm	Reduced	349000	1745	19.15	20.20	1.274	0.04	0.642	0.818
	N66_Ant1	20M	BPSK	1	1	DFT-15	Front	10mm	Full	349000	1745	24.18	24.80	1.153	-0.03	0.164	0.189
	N66_Ant1	20M	BPSK	1	1	DFT-15	Back	10mm	Full	349000	1745	24.18	24.80	1.153	-0.09	0.177	0.204
	N66_Ant1	20M	BPSK	1	1	DFT-15	Right Side	10mm	Full	349000	1745	24.18	24.80	1.153	0.07	0.152	0.175
	N66_Ant1	20M	BPSK	1	1	DFT-15	Bottom Side	10mm	Full	349000	1745	24.18	24.80	1.153	0.17	0.157	0.181
	N66_Ant1	20M	BPSK	50	28	DFT-15	Front	10mm	Full	349000	1745	24.15	24.80	1.161	-0.09	0.155	0.180
	N66_Ant1	20M	BPSK	50	28	DFT-15	Back	10mm	Full	349000	1745	24.15	24.80	1.161	-0.05	0.191	0.222
	N66_Ant1	20M	BPSK	50	28	DFT-15	Right Side	10mm	Full	349000	1745	24.15	24.80	1.161	-0.02	0.143	0.166
	N66_Ant1	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Full	349000	1745	24.15	24.80	1.161	-0.05	0.153	0.178
	N66_Ant1	20M	BPSK	50	28	DFT-15	Back	10mm	Full	344000	1720	24.13	24.80	1.167	0.14	0.163	0.190
	N66_Ant1	20M	BPSK	50	28	DFT-15	Back	10mm	Full	354000	1770	23.84	24.80	1.247	0.08	0.154	0.192



# FCC SAR TEST REPORT

Report No. : FA002801-07

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)
	N25_Ant2	20M	BPSK	1	1	DFT-15	Front	10mm	Reduced	376500	1882.5	23.25	24.00	1.189	-0.14	0.549	0.652
	N25_Ant2	20M	BPSK	1	1	DFT-15	Back	10mm	Reduced	376500	1882.5	23.25	24.00	1.189	0.04	0.458	0.544
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	376500	1882.5	23.25	24.00	1.189	0.02	0.748	0.889
	N25_Ant2	20M	BPSK	1	1	DFT-15	Top Side	10mm	Reduced	376500	1882.5	23.25	24.00	1.189	0.17	0.449	0.534
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	372000	1860	23.17	24.00	1.211	0.07	0.768	0.930
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	381000	1905	23.16	24.00	1.213	-0.02	0.820	0.995
	N25_Ant2	20M	BPSK	50	28	DFT-15	Front	10mm	Reduced	376500	1882.5	23.22	24.00	1.197	0.15	0.589	0.705
	N25_Ant2	20M	BPSK	50	28	DFT-15	Back	10mm	Reduced	376500	1882.5	23.22	24.00	1.197	0.02	0.511	0.612
	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	376500	1882.5	23.22	24.00	1.197	0.1	0.784	0.938
	N25_Ant2	20M	BPSK	50	28	DFT-15	Top Side	10mm	Reduced	376500	1882.5	23.22	24.00	1.197	0.14	0.477	0.571
	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	372000	1860	23.12	24.00	1.225	-0.07	0.838	1.026
55	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	381000	1905	23.13	24.00	1.222	0.12	0.929	1.135
	N25_Ant2	20M	BPSK	100	0	DFT-15	Left Side	10mm	Reduced	376500	1882.5	23.18	24.00	1.208	0.1	0.801	0.967
	N25_Ant3	20M	BPSK	1	1	DFT-15	Front	10mm	Reduced	376500	1882.5	20.56	21.50	1.242	-0.15	0.311	0.386
	N25_Ant3	20M	BPSK	1	1	DFT-15	Back	10mm	Reduced	376500	1882.5	20.56	21.50	1.242	0.07	0.388	0.482
	N25_Ant3	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	376500	1882.5	20.56	21.50	1.242	-0.11	0.224	0.278
	N25_Ant3	20M	BPSK	1	1	DFT-15	Bottom Side	10mm	Reduced	376500	1882.5	20.56	21.50	1.242	-0.05	0.446	0.554
	N25_Ant3	20M	BPSK	50	28	DFT-15	Front	10mm	Reduced	376500	1882.5	20.54	21.50	1.247	-0.15	0.327	0.408
	N25_Ant3	20M	BPSK	50	28	DFT-15	Back	10mm	Reduced	376500	1882.5	20.54	21.50	1.247	-0.13	0.439	0.548
	N25_Ant3	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	376500	1882.5	20.54	21.50	1.247	0.08	0.208	0.259
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	376500	1882.5	20.54	21.50	1.247	-0.08	0.476	0.594
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	372000	1860	20.40	21.50	1.288	-0.13	0.455	0.586
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	381000	1905	20.47	21.50	1.268	0.01	0.521	0.660
	N7_Ant2	20M	BPSK	1	1	DFT-15	Front	10mm	Reduced	507000	2535	18.18	19.00	1.208	0.09	0.315	0.380
	N7_Ant2	20M	BPSK	1	1	DFT-15	Back	10mm	Reduced	507000	2535	18.18	19.00	1.208	-0.15	0.343	0.414
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	507000	2535	18.18	19.00	1.208	-0.01	0.587	0.709
	N7_Ant2	20M	BPSK	1	1	DFT-15	Top Side	10mm	Reduced	507000	2535	18.18	19.00	1.208	-0.17	0.083	0.100
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	502000	2510	18.17	19.00	1.211	-0.01	0.452	0.547
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	512000	2560	18.14	19.00	1.219	0.11	0.742	0.904
	N7_Ant2	20M	BPSK	50	28	DFT-15	Front	10mm	Reduced	507000	2535	18.15	19.00	1.216	-0.06	0.326	0.396
	N7_Ant2	20M	BPSK	50	28	DFT-15	Back	10mm	Reduced	507000	2535	18.15	19.00	1.216	-0.09	0.500	0.608
	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	507000	2535	18.15	19.00	1.216	0.12	0.696	0.846
	N7_Ant2	20M	BPSK	50	28	DFT-15	Top Side	10mm	Reduced	507000	2535	18.15	19.00	1.216	-0.04	0.077	0.094
	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	502000	2510	18.12	19.00	1.225	-0.08	0.576	0.705
56	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	512000	2560	18.11	19.00	1.227	0.14	0.851	1.045
	N7_Ant2	20M	BPSK	100	0	DFT-15	Left Side	10mm	Reduced	507000	2535	18.13	19.00	1.222	-0.14	0.620	0.758
	N7_Ant3	20M	BPSK	1	1	DFT-15	Front	10mm	Reduced	507000	2535	20.20	21.00	1.202	-0.05	0.283	0.340
	N7_Ant3	20M	BPSK	1	1	DFT-15	Back	10mm	Reduced	507000	2535	20.20	21.00	1.202	0.16	0.409	0.492
	N7_Ant3	20M	BPSK	1	1	DFT-15	Left Side	10mm	Reduced	507000	2535	20.20	21.00	1.202	0.01	0.147	0.177
	N7_Ant3	20M	BPSK	1	1	DFT-15	Bottom Side	10mm	Reduced	507000	2535	20.20	21.00	1.202	-0.13	0.559	0.672
	N7_Ant3	20M	BPSK	50	28	DFT-15	Front	10mm	Reduced	507000	2535	20.18	21.00	1.208	-0.06	0.292	0.353
	N7_Ant3	20M	BPSK	50	28	DFT-15	Back	10mm	Reduced	507000	2535	20.18	21.00	1.208	0.17	0.532	0.643
	N7_Ant3	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	507000	2535	20.18	21.00	1.208	-0.12	0.141	0.170
	N7_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	507000	2535	20.18	21.00	1.208	-0.13	0.584	0.705
	N7_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	502000	2510	20.15	21.00	1.216	-0.1	0.546	0.664
	N7_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	10mm	Reduced	512000	2560	20.11	21.00	1.227	0.15	0.508	0.624
	N7_Ant3	20M	BPSK	100	0	DFT-15	Bottom Side	10mm	Reduced	507000	2535	20.16	21.00	1.213	-0.13	0.493	0.598



FCC SAR TEST REPORT

Report No. : FA002801-07

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). Includes a highlighted row for plot 57.

EN-DC



FCC SAR TEST REPORT

Report No. : FA002801-07

Table with columns: Antenna ID, Power, Modulation, Channels, Frequency, Distance, Orientation, SAR Level, E1, E2, E3, E4, E5, E6, E7, E8, E9, E10, E11, E12, E13, E14, E15, E16, E17, E18, E19, E20. Rows include N41\_Ant0, N41\_Ant1, and N41(HPUE)\_Ant0/1.





**FCC SAR TEST REPORT**

Report No. : FA002801-07

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)
	N77_Ant7	100M	BPSK	1	1	DFT-30	Front	10mm	Reduced	656000	3840	19.55	20.60	1.274	0.07	0.281	0.358
	N77_Ant7	100M	BPSK	1	1	DFT-30	Back	10mm	Reduced	656000	3840	19.55	20.60	1.274	-0.01	0.332	0.423
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Side	10mm	Reduced	656000	3840	19.55	20.60	1.274	-0.1	0.822	1.047
	N77_Ant7	100M	BPSK	1	1	DFT-30	Top Side	10mm	Reduced	656000	3840	19.55	20.60	1.274	-0.03	0.089	0.113
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Side	10mm	Reduced	650000	3750	19.28	20.60	1.355	-0.03	0.784	1.062
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Side	10mm	Reduced	662000	3930	19.48	20.60	1.294	0.11	0.873	1.130
	N77_Ant7	100M	BPSK	135	69	DFT-30	Front	10mm	Reduced	656000	3840	19.52	20.60	1.282	0.07	0.294	0.377
	N77_Ant7	100M	BPSK	135	69	DFT-30	Back	10mm	Reduced	656000	3840	19.52	20.60	1.282	-0.19	0.346	0.444
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	10mm	Reduced	656000	3840	19.52	20.60	1.282	0.1	0.835	1.071
	N77_Ant7	100M	BPSK	135	69	DFT-30	Top Side	10mm	Reduced	656000	3840	19.52	20.60	1.282	-0.1	0.092	0.118
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	10mm	Reduced	650000	3750	19.25	20.60	1.365	0.05	0.793	1.082
59	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	10mm	Reduced	662000	3930	19.46	20.60	1.300	-0.16	0.886	1.152
	N77_Ant7	100M	BPSK	270	0	DFT-30	Left Side	10mm	Reduced	656000	3840	19.50	20.60	1.288	0.14	0.817	1.052



<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	Full	6	2437	18.01	19.50	1.409	100	1.000	-0.15	0.301	0.424
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Full	6	2437	18.01	19.50	1.409	100	1.000	0.05	0.398	0.561
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Full	6	2437	18.01	19.50	1.409	100	1.000	0.11	0.492	0.693
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	Full	6	2437	18.01	19.50	1.409	100	1.000	0.17	0.111	0.156
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Full	1	2412	17.96	19.50	1.426	100	1.000	0.18	0.359	0.512
60	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Full	11	2462	17.91	19.50	1.442	100	1.000	-0.09	0.565	0.815
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	Full	6	2437	15.10	16.50	1.380	100	1.000	-0.08	0.102	0.141
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2	Full	6	2437	15.10	16.50	1.380	100	1.000	0.04	0.090	0.124
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 2	Full	6	2437	15.10	16.50	1.380	100	1.000	-0.11	0.091	0.126
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Full	6	2437	15.10	16.50	1.380	100	1.000	-0.03	0.118	0.163
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Full	1	2412	14.80	16.50	1.479	100	1.000	0.17	0.137	0.203
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Full	11	2462	14.90	16.50	1.445	100	1.000	0.05	0.129	0.186
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1+2	Reduced Power Level 1	6	2437	16.01	17.50	1.409	100	1.000	-0.15	0.181	0.255
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced Power Level 1	6	2437	16.01	17.50	1.409	100	1.000	-0.07	0.235	0.331
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced Power Level 1	6	2437	16.01	17.50	1.409	100	1.000	-0.06	0.295	0.416
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	Reduced Power Level 1	6	2437	16.01	17.50	1.409	100	1.000	0.13	0.065	0.092
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced Power Level 1	1	2412	15.96	17.50	1.426	100	1.000	0.08	0.212	0.302
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced Power Level 1	11	2462	15.91	17.50	1.442	100	1.000	-0.1	0.337	0.486
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	-0.19	0.065	0.090
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	-0.01	0.054	0.075
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	0.1	0.056	0.077
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Reduced Power Level 2	6	2437	13.10	14.50	1.380	100	1.000	-0.1	0.075	0.104
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Reduced Power Level 2	1	2412	12.80	14.50	1.479	100	1.000	-0.11	0.086	0.126
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Reduced Power Level 2	11	2462	12.90	14.50	1.445	100	1.000	-0.1	0.079	0.114
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 1+2	Reduced Power Level 3	6	2437	15.01	16.50	1.409	100	1.000	0.11	0.144	0.203
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 1+2	Reduced Power Level 3	6	2437	15.01	16.50	1.409	100	1.000	0.19	0.192	0.271
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced Power Level 3	6	2437	15.01	16.50	1.409	100	1.000	-0.11	0.244	0.344
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 1+2	Reduced Power Level 3	6	2437	15.01	16.50	1.409	100	1.000	-0.12	0.061	0.086
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced Power Level 3	1	2412	14.96	16.50	1.426	100	1.000	-0.06	0.166	0.237
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 1+2	Reduced Power Level 3	11	2462	14.91	16.50	1.442	100	1.000	-0.04	0.273	0.394
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 2	Reduced Power Level 4	6	2437	12.10	13.50	1.380	100	1.000	0.05	0.048	0.066
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 2	Reduced Power Level 4	6	2437	12.10	13.50	1.380	100	1.000	0.04	0.042	0.058
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 2	Reduced Power Level 4	6	2437	12.10	13.50	1.380	100	1.000	0.12	0.044	0.061
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Reduced Power Level 4	6	2437	12.10	13.50	1.380	100	1.000	0.08	0.057	0.079
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Reduced Power Level 4	1	2412	11.80	13.50	1.479	100	1.000	0.08	0.065	0.096
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 2	Reduced Power Level 4	11	2462	11.90	13.50	1.445	100	1.000	0.17	0.062	0.090



<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	802.11ac-VHT80 MCS0	Front	10mm	Ant 1+2	Reduced Power Level 1/2	42	5210	18.37	20.00	1.455	100	1.000	-0.03	0.164	0.239
61	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1+2	Reduced Power Level 1/2	42	5210	18.37	20.00	1.455	100	1.000	-0.16	0.667	0.971
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1+2	Reduced Power Level 1/2	42	5210	18.37	20.00	1.455	100	1.000	-0.12	0.370	0.539
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1+2	Reduced Power Level 1/2	42	5210	18.37	20.00	1.455	100	1.000	0.1	0.241	0.351
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1+2	Reduced Power Level 3/5/6	42	5210	16.37	18.00	1.455	100	1.000	0.13	0.105	0.153
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1+2	Reduced Power Level 3/5/6	42	5210	16.37	18.00	1.455	100	1.000	0.04	0.456	0.664
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1+2	Reduced Power Level 3/5/6	42	5210	16.37	18.00	1.455	100	1.000	0.05	0.239	0.348
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1+2	Reduced Power Level 3/5/6	42	5210	16.37	18.00	1.455	100	1.000	0.18	0.165	0.240
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1+2	Reduced Power Level 4/7/8	42	5210	14.37	16.00	1.455	100	1.000	0.08	0.063	0.092
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1+2	Reduced Power Level 4/7/8	42	5210	14.37	16.00	1.455	100	1.000	0.14	0.273	0.397
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1+2	Reduced Power Level 4/7/8	42	5210	14.37	16.00	1.455	100	1.000	0.02	0.163	0.237
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1+2	Reduced Power Level 4/7/8	42	5210	14.37	16.00	1.455	100	1.000	-0.1	0.088	0.128
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1+2	Reduced Power Level 1/2	155	5775	19.18	21.00	1.521	100	1.000	0.14	0.228	0.347
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1+2	Reduced Power Level 1/2	155	5775	19.18	21.00	1.521	100	1.000	0.11	0.434	0.660
62	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1+2	Reduced Power Level 1/2	155	5775	19.18	21.00	1.521	100	1.000	0.05	0.533	0.810
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1+2	Reduced Power Level 1/2	155	5775	19.18	21.00	1.521	100	1.000	0.01	0.459	0.698
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1+2	Reduced Power Level 3/5/6	155	5775	18.18	20.00	1.521	100	1.000	-0.18	0.173	0.263
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1+2	Reduced Power Level 3/5/6	155	5775	18.18	20.00	1.521	100	1.000	-0.09	0.338	0.514
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1+2	Reduced Power Level 3/5/6	155	5775	18.18	20.00	1.521	100	1.000	0.08	0.410	0.623
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1+2	Reduced Power Level 3/5/6	155	5775	18.18	20.00	1.521	100	1.000	-0.05	0.365	0.555
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 1+2	Reduced Power Level 4/7/8	155	5775	15.18	17.00	1.521	100	1.000	-0.19	0.089	0.135
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 1+2	Reduced Power Level 4/7/8	155	5775	15.18	17.00	1.521	100	1.000	0.09	0.175	0.266
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 1+2	Reduced Power Level 4/7/8	155	5775	15.18	17.00	1.521	100	1.000	0.07	0.207	0.315
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 1+2	Reduced Power Level 4/7/8	155	5775	15.18	17.00	1.521	100	1.000	0.05	0.184	0.280

<Bluetooth 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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	10mm	Full	39	2441	10.20	12.20	1.585	76.49	1.307	0.04	0.068	0.141
	Bluetooth	DH5 1Mbps	Back	10mm	Full	39	2441	10.20	12.20	1.585	76.49	1.307	-0.06	0.076	0.156
63	Bluetooth	DH5 1Mbps	Right Side	10mm	Full	39	2441	10.20	12.20	1.585	76.49	1.307	0.14	0.160	0.331
	Bluetooth	DH5 1Mbps	Top Side	10mm	Full	39	2441	10.20	12.20	1.585	76.49	1.307	0.02	0.003	0.006
	Bluetooth	DH5 1Mbps	Right Side	10mm	Full	0	2402	8.50	10.50	1.585	76.49	1.307	-0.07	0.137	0.284
	Bluetooth	DH5 1Mbps	Right Side	10mm	Full	78	2480	9.40	11.40	1.585	76.49	1.307	-0.09	0.135	0.280



**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(4 Tx slots)	Front	15mm	Full	128	824.2	28.01	28.50	1.119	0.08	0.128	0.143
	GSM850_UAT	GPRS(4 Tx slots)	Back	15mm	Full	128	824.2	28.01	28.50	1.119	0.04	0.203	0.227
64	GSM850_UAT	GPRS(4 Tx slots)	Back	15mm	Full	189	836.4	27.52	28.50	1.253	0.09	0.207	<b>0.259</b>
	GSM850_UAT	GPRS(4 Tx slots)	Back	15mm	Full	251	848.8	27.95	28.50	1.135	0.13	0.216	0.245
	GSM850_LAT	GPRS(3 Tx slots)	Front	15mm	Full	128	824.2	28.93	29.80	1.222	-0.1	0.138	0.169
	GSM850_LAT	GPRS(3 Tx slots)	Back	15mm	Full	128	824.2	28.93	29.80	1.222	0.16	0.169	0.206
	GSM850_LAT	GPRS(3 Tx slots)	Back	15mm	Full	189	836.4	28.91	29.80	1.227	-0.12	0.166	0.204
	GSM850_LAT	GPRS(3 Tx slots)	Back	15mm	Full	251	848.8	28.92	29.80	1.225	0.06	0.168	0.206
	GSM1900_UAT	GPRS(4 Tx slots)	Front	15mm	Full	512	1850.2	24.06	24.80	1.186	-0.16	0.084	0.100
	GSM1900_UAT	GPRS(4 Tx slots)	Back	15mm	Full	512	1850.2	24.06	24.80	1.186	0.06	0.092	0.109
	GSM1900_UAT	GPRS(4 Tx slots)	Back	15mm	Full	661	1880	23.67	24.80	1.297	-0.09	0.152	0.197
	GSM1900_UAT	GPRS(4 Tx slots)	Back	15mm	Full	810	1909.8	23.89	24.80	1.233	-0.15	0.162	0.200
	GSM1900_LAT	GPRS(4 Tx slots)	Front	15mm	Full	512	1850.2	25.17	25.80	1.156	0.09	0.179	0.207
	GSM1900_LAT	GPRS(4 Tx slots)	Back	15mm	Full	512	1850.2	25.17	25.80	1.156	-0.14	0.190	0.220
	GSM1900_LAT	GPRS(4 Tx slots)	Back	15mm	Full	661	1880	25.08	25.80	1.180	0.09	0.244	0.288
65	GSM1900_LAT	GPRS(4 Tx slots)	Back	15mm	Full	810	1909.8	25.02	25.80	1.197	0.17	0.254	<b>0.304</b>

**<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	24.04	24.80	1.191	-0.16	0.153	0.182
	WCDMA_V_UAT	RMC 12.2Kbps	Back	15mm	Full	4182	836.4	24.04	24.80	1.191	0.17	0.247	0.294
	WCDMA_V_UAT	RMC 12.2Kbps	Back	15mm	Full	4132	826.4	23.97	24.80	1.211	0.08	0.179	0.217
66	WCDMA_V_UAT	RMC 12.2Kbps	Back	15mm	Full	4233	846.6	23.96	24.80	1.213	0.03	0.285	<b>0.346</b>
	WCDMA_V_LAT	RMC 12.2Kbps	Front	15mm	Full	4182	836.4	24.49	24.80	1.074	0.13	0.157	0.169
	WCDMA_V_LAT	RMC 12.2Kbps	Back	15mm	Full	4182	836.4	24.49	24.80	1.074	-0.03	0.236	0.253
	WCDMA_V_LAT	RMC 12.2Kbps	Back	15mm	Full	4132	826.4	24.47	24.80	1.079	0.12	0.198	0.214
	WCDMA_V_LAT	RMC 12.2Kbps	Back	15mm	Full	4233	846.6	24.41	24.80	1.094	-0.15	0.226	0.247
	WCDMA_IV_UAT	RMC 12.2Kbps	Front	15mm	Full	1413	1732.6	24.27	24.80	1.130	0.19	0.104	0.117
	WCDMA_IV_UAT	RMC 12.2Kbps	Back	15mm	Full	1413	1732.6	24.27	24.80	1.130	-0.18	0.119	0.134
	WCDMA_IV_UAT	RMC 12.2Kbps	Back	15mm	Full	1312	1712.4	24.14	24.80	1.164	-0.18	0.105	0.122
	WCDMA_IV_UAT	RMC 12.2Kbps	Back	15mm	Full	1513	1752.6	24.24	24.80	1.138	-0.02	0.150	0.171
	WCDMA_IV_LAT	RMC 12.2Kbps	Front	15mm	Full	1413	1732.6	24.48	24.80	1.076	0.04	0.403	0.434
67	WCDMA_IV_LAT	RMC 12.2Kbps	Back	15mm	Full	1413	1732.6	24.48	24.80	1.076	-0.09	0.509	<b>0.548</b>
	WCDMA_IV_LAT	RMC 12.2Kbps	Back	15mm	Full	1312	1712.4	24.41	24.80	1.094	-0.05	0.447	0.489
	WCDMA_IV_LAT	RMC 12.2Kbps	Back	15mm	Full	1513	1752.6	24.38	24.80	1.102	-0.12	0.434	0.478
	WCDMA_II_UAT	RMC 12.2Kbps	Front	15mm	Full	9400	1880	23.98	24.80	1.208	-0.13	0.133	0.161
	WCDMA_II_UAT	RMC 12.2Kbps	Back	15mm	Full	9400	1880	23.98	24.80	1.208	0.19	0.144	0.174
	WCDMA_II_UAT	RMC 12.2Kbps	Back	15mm	Full	9262	1852.4	23.79	24.80	1.262	0.13	0.155	0.196
	WCDMA_II_UAT	RMC 12.2Kbps	Back	15mm	Full	9538	1907.6	23.86	24.80	1.242	-0.03	0.176	0.219
	WCDMA_II_LAT	RMC 12.2Kbps	Front	15mm	Full	9400	1880	24.38	24.80	1.102	-0.02	0.451	0.497
	WCDMA_II_LAT	RMC 12.2Kbps	Back	15mm	Full	9400	1880	24.38	24.80	1.102	0.14	0.544	0.599
	WCDMA_II_LAT	RMC 12.2Kbps	Back	15mm	Full	9262	1852.4	24.36	24.80	1.107	0.14	0.468	0.518
68	WCDMA_II_LAT	RMC 12.2Kbps	Back	15mm	Full	9538	1907.6	24.35	24.80	1.109	0.16	0.547	<b>0.607</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 BC10_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	476	817.9	23.94	24.70	1.191	0.09	0.095	0.114
	CDMA2000 BC10_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	476	817.9	23.94	24.70	1.191	0.1	0.157	0.187
	CDMA2000 BC10_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	580	820.5	23.90	24.70	1.202	-0.06	0.149	0.179
	CDMA2000 BC10_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	684	823.1	23.85	24.70	1.216	0.16	0.151	0.184
	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Front	15mm	Full	476	817.9	23.85	24.80	1.245	0.05	0.154	0.192
	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	476	817.9	23.85	24.80	1.245	-0.07	0.186	0.231
69	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	580	820.5	23.80	24.80	1.259	-0.12	0.186	0.234
	CDMA2000 BC10_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	684	823.1	23.73	24.80	1.279	0.07	0.182	0.233
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	384	836.52	23.86	24.80	1.242	0.11	0.118	0.147
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	384	836.52	23.86	24.80	1.242	0.02	0.190	0.236
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	1013	824.7	23.79	24.80	1.262	-0.09	0.159	0.201
	CDMA2000 BC0_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	777	848.31	23.84	24.80	1.247	0.19	0.196	0.244
	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Front	15mm	Full	384	836.52	23.68	24.80	1.294	0.01	0.140	0.181
	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	384	836.52	23.68	24.80	1.294	-0.17	0.195	0.252
	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	1013	824.7	23.65	24.80	1.303	0.01	0.182	0.237
70	CDMA2000 BC0_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	777	848.31	23.29	24.80	1.416	0.02	0.189	0.268
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Front	15mm	Full	600	1880	23.88	24.80	1.236	-0.09	0.181	0.224
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	600	1880	23.88	24.80	1.236	-0.07	0.195	0.241
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	25	1851.25	23.86	24.80	1.242	-0.1	0.204	0.253
	CDMA2000 BC1_UAT	RC3 SO32 (F+SCH)	Back	15mm	Full	1175	1908.75	23.47	24.80	1.358	-0.16	0.228	0.310
	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Front	15mm	Full	600	1880	23.67	24.80	1.297	0.05	0.168	0.218
	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	600	1880	23.67	24.80	1.297	-0.11	0.262	0.340
	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	25	1851.25	23.65	24.80	1.303	0.02	0.259	0.338
71	CDMA2000 BC1_LAT	RC3 SO32 (F+SCH)	Back	15mm	Full	1175	1908.75	23.39	24.80	1.384	0.11	0.321	0.444



<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 LTE Bands 71, 12, 13, 5, and 26 in UAT and LAT configurations.



**FCC SAR TEST REPORT**

Report No. : FA002801-07

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	24.04	24.80	1.191	-0.01	0.091	0.108
	LTE Band 66_UAT	20M	QPSK	1	0	Back	15mm	Full	132322	1745	24.04	24.80	1.191	-0.09	0.097	0.116
	LTE Band 66_UAT	20M	QPSK	1	0	Back	15mm	Full	132072	1720	23.84	24.80	1.247	0.04	0.105	0.131
	LTE Band 66_UAT	20M	QPSK	1	0	Back	15mm	Full	132572	1770	23.94	24.80	1.219	-0.02	0.221	0.269
	LTE Band 66_UAT	20M	QPSK	50	24	Front	15mm	Full	132322	1745	23.01	23.80	1.199	-0.08	0.073	0.088
	LTE Band 66_UAT	20M	QPSK	50	24	Back	15mm	Full	132322	1745	23.01	23.80	1.199	-0.19	0.082	0.098
	LTE Band 66_LAT	20M	QPSK	1	0	Front	15mm	Full	132322	1745	24.00	24.80	1.202	0.14	0.355	0.427
	LTE Band 66_LAT	20M	QPSK	1	0	Back	15mm	Full	132322	1745	24.00	24.80	1.202	0.07	0.389	0.468
	LTE Band 66_LAT	20M	QPSK	1	0	Back	15mm	Full	132072	1720	23.83	24.80	1.250	0.18	0.319	0.399
	LTE Band 66_LAT	20M	QPSK	1	0	Back	15mm	Full	132572	1770	23.91	24.80	1.227	0.05	0.331	0.406
	LTE Band 66_LAT	20M	QPSK	50	24	Front	15mm	Full	132322	1745	23.02	23.80	1.197	0.16	0.275	0.329
	LTE Band 66_LAT	20M	QPSK	50	24	Back	15mm	Full	132322	1745	23.02	23.80	1.197	-0.02	0.301	0.360
EN-DC																
	LTE Band 66_Ant0	20M	QPSK	1	0	Front	15mm	Full	132322	1745	23.77	24.80	1.268	0.11	0.193	0.245
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	15mm	Full	132322	1745	23.77	24.80	1.268	0.07	0.464	0.588
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	15mm	Full	132072	1720	23.71	24.80	1.285	-0.11	0.465	0.598
77	LTE Band 66_Ant0	20M	QPSK	1	0	Back	15mm	Full	132572	1770	23.63	24.80	1.309	-0.11	0.510	<b>0.668</b>
	LTE Band 66_Ant0	20M	QPSK	50	24	Front	15mm	Full	132322	1745	22.80	23.80	1.259	0.05	0.150	0.189
	LTE Band 66_Ant0	20M	QPSK	50	24	Back	15mm	Full	132322	1745	22.80	23.80	1.259	0.09	0.379	0.477
	LTE Band 66_Ant1	20M	QPSK	1	0	Front	15mm	Full	132322	1745	23.88	24.80	1.236	0.11	0.163	0.201
	LTE Band 66_Ant1	20M	QPSK	1	0	Back	15mm	Full	132322	1745	23.88	24.80	1.236	0.03	0.183	0.226
	LTE Band 66_Ant1	20M	QPSK	1	0	Back	15mm	Full	132072	1720	23.78	24.80	1.265	0.07	0.173	0.219
	LTE Band 66_Ant1	20M	QPSK	1	0	Back	15mm	Full	132572	1770	23.75	24.80	1.274	-0.05	0.187	0.238
	LTE Band 66_Ant1	20M	QPSK	50	24	Front	15mm	Full	132322	1745	22.81	23.80	1.256	0.04	0.129	0.162
	LTE Band 66_Ant1	20M	QPSK	50	24	Back	15mm	Full	132322	1745	22.81	23.80	1.256	0.13	0.147	0.185
	LTE Band 25_UAT	20M	QPSK	1	49	Front	15mm	Full	26590	1905	23.98	24.80	1.208	0.19	0.145	0.175
	LTE Band 25_UAT	20M	QPSK	1	49	Back	15mm	Full	26590	1905	23.98	24.80	1.208	0.01	0.186	0.225
	LTE Band 25_UAT	20M	QPSK	1	49	Back	15mm	Full	26140	1860	23.85	24.80	1.245	-0.04	0.223	0.278
	LTE Band 25_UAT	20M	QPSK	1	49	Back	15mm	Full	26340	1880	23.84	24.80	1.247	-0.05	0.183	0.228
	LTE Band 25_UAT	20M	QPSK	50	24	Front	15mm	Full	26590	1905	23.10	23.80	1.175	-0.19	0.121	0.142
	LTE Band 25_UAT	20M	QPSK	50	24	Back	15mm	Full	26590	1905	23.10	23.80	1.175	0.03	0.150	0.176
	LTE Band 25_LAT	20M	QPSK	1	49	Front	15mm	Full	26590	1905	24.00	24.80	1.202	0.18	0.385	0.463
78	LTE Band 25_LAT	20M	QPSK	1	49	Back	15mm	Full	26590	1905	24.00	24.80	1.202	-0.04	0.422	<b>0.507</b>
	LTE Band 25_LAT	20M	QPSK	1	49	Back	15mm	Full	26140	1860	23.93	24.80	1.222	0.11	0.338	0.413
	LTE Band 25_LAT	20M	QPSK	1	49	Back	15mm	Full	26340	1880	23.98	24.80	1.208	0.04	0.377	0.455
	LTE Band 25_LAT	20M	QPSK	50	24	Front	15mm	Full	26590	1905	23.15	23.80	1.161	0.09	0.312	0.362
	LTE Band 25_LAT	20M	QPSK	50	24	Back	15mm	Full	26590	1905	23.15	23.80	1.161	-0.16	0.352	0.409
	LTE Band 30_UAT	10M	QPSK	1	25	Front	15mm	Full	27710	2310	24.03	24.80	1.194	-0.02	0.393	0.469
	LTE Band 30_UAT	10M	QPSK	1	25	Back	15mm	Full	27710	2310	24.03	24.80	1.194	0.01	0.504	0.602
	LTE Band 30_UAT	10M	QPSK	25	12	Front	15mm	Full	27710	2310	23.19	23.80	1.151	0.02	0.369	0.425
	LTE Band 30_UAT	10M	QPSK	25	12	Back	15mm	Full	27710	2310	23.19	23.80	1.151	0.07	0.441	0.508
	LTE Band 30_LAT	10M	QPSK	1	25	Front	15mm	Full	27710	2310	24.00	24.80	1.202	0.16	0.465	0.559
79	LTE Band 30_LAT	10M	QPSK	1	25	Back	15mm	Full	27710	2310	24.00	24.80	1.202	0.05	0.549	<b>0.660</b>
	LTE Band 30_LAT	10M	QPSK	25	12	Front	15mm	Full	27710	2310	23.11	23.80	1.172	0.16	0.401	0.470
	LTE Band 30_LAT	10M	QPSK	25	12	Back	15mm	Full	27710	2310	23.11	23.80	1.172	-0.16	0.470	0.551



**FCC SAR TEST REPORT**

Report No. : FA002801-07

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 7_UAT	20M	QPSK	1	99	Front	15mm	Full	21100	2535	24.19	24.80	1.151	-0.01	0.172	0.198
	LTE Band 7_UAT	20M	QPSK	1	99	Back	15mm	Full	21100	2535	24.19	24.80	1.151	-0.02	0.202	0.232
	LTE Band 7_UAT	20M	QPSK	1	99	Back	15mm	Full	20850	2510	23.99	24.80	1.205	0.17	0.275	0.331
	LTE Band 7_UAT	20M	QPSK	1	99	Back	15mm	Full	21350	2560	24.18	24.80	1.153	0.14	0.280	0.323
	LTE Band 7_UAT	20M	QPSK	50	24	Front	15mm	Full	21100	2535	23.27	23.80	1.130	-0.14	0.140	0.158
	LTE Band 7_UAT	20M	QPSK	50	24	Back	15mm	Full	21100	2535	23.27	23.80	1.130	0.15	0.161	0.182
	LTE Band 7_LAT	20M	QPSK	1	99	Front	15mm	Full	21100	2535	24.18	24.80	1.153	-0.19	0.483	0.557
	LTE Band 7_LAT	20M	QPSK	1	99	Back	15mm	Full	21100	2535	24.18	24.80	1.153	0.08	0.521	0.601
80	LTE Band 7_LAT	20M	QPSK	1	99	Back	15mm	Full	20850	2510	24.15	24.80	1.161	0.01	0.524	<b>0.609</b>
	LTE Band 7_LAT	20M	QPSK	1	99	Back	15mm	Full	21350	2560	24.00	24.80	1.202	0.16	0.468	0.563
	LTE Band 7_LAT	20M	QPSK	50	24	Front	15mm	Full	21100	2535	23.26	23.80	1.132	-0.08	0.396	0.448
	LTE Band 7_LAT	20M	QPSK	50	24	Back	15mm	Full	21100	2535	23.26	23.80	1.132	0.18	0.461	0.522
EN-DC																
	LTE Band 7_Ant0	20M	QPSK	1	99	Front	15mm	Full	21100	2535	24.19	24.80	1.151	0.04	0.126	0.145
	LTE Band 7_Ant0	20M	QPSK	1	99	Back	15mm	Full	21100	2535	24.19	24.80	1.151	0.1	0.296	0.341
	LTE Band 7_Ant0	20M	QPSK	1	99	Back	15mm	Full	20850	2510	23.99	24.80	1.205	-0.19	0.283	0.341
	LTE Band 7_Ant0	20M	QPSK	1	99	Back	15mm	Full	21350	2560	24.18	24.80	1.153	0.02	0.418	0.482
	LTE Band 7_Ant0	20M	QPSK	50	24	Front	15mm	Full	21100	2535	23.27	23.80	1.130	-0.19	0.106	0.120
	LTE Band 7_Ant0	20M	QPSK	50	24	Back	15mm	Full	21100	2535	23.27	23.80	1.130	-0.1	0.243	0.275
	LTE Band 7_Ant1	20M	QPSK	1	99	Front	15mm	Full	21100	2535	24.18	24.80	1.153	0.07	0.150	0.173
	LTE Band 7_Ant1	20M	QPSK	1	99	Back	15mm	Full	21100	2535	24.18	24.80	1.153	0.13	0.069	0.080
	LTE Band 7_Ant1	20M	QPSK	1	99	Front	15mm	Full	20850	2510	24.15	24.80	1.161	0.06	0.154	0.179
	LTE Band 7_Ant1	20M	QPSK	1	99	Front	15mm	Full	21350	2560	24.00	24.80	1.202	0.04	0.156	0.188
	LTE Band 7_Ant1	20M	QPSK	50	24	Front	15mm	Full	21100	2535	23.26	23.80	1.132	0.04	0.123	0.139
	LTE Band 7_Ant1	20M	QPSK	50	24	Back	15mm	Full	21100	2535	23.26	23.80	1.132	0.13	0.054	0.061





<TDD 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, Duty Cycle %, Duty Cycle Scaling Factor, Power Drift (dB), Measured 1g SAR (W/kg), Reported 1g SAR (W/kg). Row 81 is highlighted in yellow.



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	23.57	24.80	1.327	62.9	1.006	0.17	0.126	0.168
82	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	56640	3690	23.57	24.80	1.327	62.9	1.006	0.1	0.312	0.417
	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	55340	3560	23.38	24.80	1.387	62.9	1.006	0.18	0.213	0.297
	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	55830	3609	23.46	24.80	1.361	62.9	1.006	0.13	0.254	0.348
	LTE Band 48_UAT	20M	QPSK	1	0	Back	15mm	Full	56150	3641	23.49	24.80	1.352	62.9	1.006	-0.08	0.282	0.384
	LTE Band 48C_UAT	20M	QPSK	1	0	Back	15mm	Full	56640(PCC)+56442(SCC)	3690(PCC)+3670.2(SCC)	23.52	24.80	1.343	62.9	1.006	-0.16	0.302	0.408
	LTE Band 48C_UAT	20M	QPSK	1	0	Back	15mm	Full	55340(PCC)+55538(SCC)	3560(PCC)+3579.8(SCC)	23.50	24.80	1.349	62.9	1.006	0.16	0.229	0.311
	LTE Band 48C_UAT	20M	QPSK	1	0	Back	15mm	Full	55830(PCC)+55632(SCC)	3609(PCC)+3589.2(SCC)	23.49	24.80	1.352	62.9	1.006	0.17	0.274	0.373
	LTE Band 48C_UAT	20M	QPSK	1	0	Back	15mm	Full	56150(PCC)+55952(SCC)	3641(PCC)+3621.2(SCC)	23.36	24.80	1.393	62.9	1.006	0.1	0.287	0.402
	LTE Band 48_UAT	20M	QPSK	50	0	Front	15mm	Full	56640	3690	22.75	23.80	1.274	62.9	1.006	0.17	0.139	0.178
	LTE Band 48_UAT	20M	QPSK	50	0	Back	15mm	Full	56640	3690	22.75	23.80	1.274	62.9	1.006	-0.18	0.227	0.291

<5G NR 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)	
	N71_Ant0	20M	BPSK	1	1	DFT-15	Front	15mm	Full	136100	680.5	23.96	24.80	1.213	0.09	0.111	0.135	
83	N71_Ant0	20M	BPSK	1	1	DFT-15	Back	15mm	Full	136100	680.5	23.96	24.80	1.213	0.02	0.162	0.197	
	N71_Ant0	20M	BPSK	50	28	DFT-15	Front	15mm	Full	136100	680.5	23.90	24.80	1.230	0.12	0.097	0.119	
	N71_Ant0	20M	BPSK	50	28	DFT-15	Back	15mm	Full	136100	680.5	23.90	24.80	1.230	-0.09	0.133	0.164	
	N71_Ant1	20M	BPSK	1	1	DFT-15	Front	15mm	Full	136100	680.5	24.08	24.80	1.180	-0.16	0.073	0.086	
	N71_Ant1	20M	BPSK	1	1	DFT-15	Back	15mm	Full	136100	680.5	24.08	24.80	1.180	0.16	0.086	0.101	
	N71_Ant1	20M	BPSK	50	28	DFT-15	Front	15mm	Full	136100	680.5	24.02	24.80	1.197	-0.07	0.036	0.043	
	N71_Ant1	20M	BPSK	50	28	DFT-15	Back	15mm	Full	136100	680.5	24.02	24.80	1.197	-0.11	0.039	0.047	
	N5_Ant0	20M	BPSK	1	1	DFT-15	Front	15mm	Full	167300	836.5	23.66	24.30	1.159	0.09	0.076	0.089	
	N5_Ant0	20M	BPSK	1	1	DFT-15	Back	15mm	Full	167300	836.5	23.66	24.30	1.159	-0.14	0.120	0.139	
	N5_Ant0	20M	BPSK	50	28	DFT-15	Front	15mm	Full	167300	836.5	23.61	24.30	1.172	-0.1	0.043	0.050	
	N5_Ant0	20M	BPSK	50	28	DFT-15	Back	15mm	Full	167300	836.5	23.61	24.30	1.172	0.18	0.071	0.083	
	N5_Ant1	20M	BPSK	1	1	DFT-15	Front	15mm	Full	167300	836.5	23.75	24.30	1.135	-0.09	0.143	0.162	
84	N5_Ant1	20M	BPSK	1	1	DFT-15	Back	15mm	Full	167300	836.5	23.75	24.30	1.135	-0.16	0.171	0.194	
	N5_Ant1	20M	BPSK	50	28	DFT-15	Front	15mm	Full	167300	836.5	23.70	24.30	1.148	-0.15	0.063	0.072	
	N5_Ant1	20M	BPSK	50	28	DFT-15	Back	15mm	Full	167300	836.5	23.70	24.30	1.148	0.03	0.071	0.082	
	N66_Ant2	20M	BPSK	1	1	DFT-15	Front	15mm	Full	349000	1745	24.21	24.80	1.146	-0.02	0.156	0.179	
	N66_Ant2	20M	BPSK	1	1	DFT-15	Back	15mm	Full	349000	1745	24.21	24.80	1.146	0.09	0.195	0.223	
	N66_Ant2	20M	BPSK	50	28	DFT-15	Front	15mm	Full	349000	1745	24.15	24.80	1.161	0.11	0.157	0.182	
	N66_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	349000	1745	24.15	24.80	1.161	-0.11	0.266	0.309	
	N66_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	344000	1720	24.13	24.80	1.167	0.13	0.230	0.268	
	N66_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	354000	1770	24.10	24.80	1.175	-0.15	0.277	0.325	
	N66_Ant3	20M	BPSK	1	1	DFT-15	Front	15mm	Full	349000	1745	24.09	24.80	1.178	0.18	0.424	0.499	
	N66_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	349000	1745	24.09	24.80	1.178	-0.12	0.439	0.517	
	N66_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	344000	1720	24.07	24.80	1.183	-0.11	0.406	0.480	
	N66_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	354000	1770	24.00	24.80	1.202	0.13	0.423	0.509	
	N66_Ant3	20M	BPSK	50	28	DFT-15	Front	15mm	Full	349000	1745	24.03	24.80	1.194	0.07	0.397	0.474	
	N66_Ant3	20M	BPSK	50	28	DFT-15	Back	15mm	Full	349000	1745	24.03	24.80	1.194	-0.13	0.498	0.595	
EN-DC																		
	N66_Ant0	20M	BPSK	1	1	DFT-15	Front	15mm	Full	349000	1745	23.95	24.80	1.216	-0.05	0.310	0.377	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Back	15mm	Full	349000	1745	23.95	24.80	1.216	0.16	0.471	0.573	
85	N66_Ant0	20M	BPSK	1	1	DFT-15	Back	15mm	Full	344000	1720	23.89	24.80	1.233	-0.1	0.501	0.618	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Back	15mm	Full	354000	1770	23.83	24.80	1.250	-0.19	0.424	0.530	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Front	15mm	Full	349000	1745	23.93	24.80	1.222	0.02	0.335	0.409	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Back	15mm	Full	349000	1745	23.93	24.80	1.222	0.14	0.458	0.560	
	N66_Ant1	20M	BPSK	1	1	DFT-15	Front	15mm	Full	349000	1745	24.18	24.80	1.153	0.03	0.080	0.092	
	N66_Ant1	20M	BPSK	1	1	DFT-15	Back	15mm	Full	349000	1745	24.18	24.80	1.153	0.02	0.105	0.121	
	N66_Ant1	20M	BPSK	1	1	DFT-15	Back	15mm	Full	344000	1720	24.14	24.80	1.164	0.03	0.079	0.092	
	N66_Ant1	20M	BPSK	1	1	DFT-15	Back	15mm	Full	354000	1770	23.87	24.80	1.239	-0.09	0.078	0.097	
	N66_Ant1	20M	BPSK	50	28	DFT-15	Front	15mm	Full	349000	1745	24.15	24.80	1.161	-0.06	0.078	0.091	
	N66_Ant1	20M	BPSK	50	28	DFT-15	Back	15mm	Full	349000	1745	24.15	24.80	1.161	0.07	0.084	0.098	



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)
	N25_Ant2	20M	BPSK	1	1	DFT-15	Front	15mm	Full	376500	1882.5	24.16	24.80	1.159	-0.1	0.289	0.335
	N25_Ant2	20M	BPSK	1	1	DFT-15	Back	15mm	Full	376500	1882.5	24.16	24.80	1.159	-0.12	0.398	0.461
	N25_Ant2	20M	BPSK	50	28	DFT-15	Front	15mm	Full	376500	1882.5	24.12	24.80	1.169	-0.18	0.312	0.365
	N25_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	376500	1882.5	24.12	24.80	1.169	-0.01	0.401	0.469
	N25_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	372000	1860	24.08	24.80	1.180	-0.09	0.420	0.496
	N25_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	381000	1905	24.10	24.80	1.175	0.17	0.401	0.471
	N25_Ant3	20M	BPSK	1	1	DFT-15	Front	15mm	Full	376500	1882.5	24.06	24.80	1.186	0.11	0.395	0.468
	N25_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	376500	1882.5	24.06	24.80	1.186	0.03	0.412	0.489
	N25_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	372000	1860	23.92	24.80	1.225	-0.02	0.434	0.531
86	N25_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	381000	1905	24.01	24.80	1.199	0.08	0.520	0.624
	N25_Ant3	20M	BPSK	50	28	DFT-15	Front	15mm	Full	376500	1882.5	24.03	24.80	1.194	0.16	0.385	0.460
	N25_Ant3	20M	BPSK	50	28	DFT-15	Back	15mm	Full	376500	1882.5	24.03	24.80	1.194	0.16	0.404	0.482
	N7_Ant2	20M	BPSK	1	1	DFT-15	Front	15mm	Full	507000	2535	24.14	24.80	1.164	-0.16	0.213	0.248
	N7_Ant2	20M	BPSK	1	1	DFT-15	Back	15mm	Full	507000	2535	24.14	24.80	1.164	-0.17	0.244	0.284
	N7_Ant2	20M	BPSK	50	28	DFT-15	Front	15mm	Full	507000	2535	24.08	24.80	1.180	-0.16	0.227	0.268
	N7_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	507000	2535	24.08	24.80	1.180	0.15	0.260	0.307
	N7_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	502000	2510	23.96	24.80	1.213	0.19	0.212	0.257
	N7_Ant2	20M	BPSK	50	28	DFT-15	Back	15mm	Full	512000	2560	24.00	24.80	1.202	-0.13	0.249	0.299
	N7_Ant3	20M	BPSK	1	1	DFT-15	Front	15mm	Full	507000	2535	24.15	24.80	1.161	-0.03	0.414	0.481
87	N7_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	507000	2535	24.15	24.80	1.161	0.16	0.512	0.595
	N7_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	502000	2510	24.06	24.80	1.186	-0.02	0.485	0.575
	N7_Ant3	20M	BPSK	1	1	DFT-15	Back	15mm	Full	512000	2560	24.05	24.80	1.189	0.12	0.430	0.511
	N7_Ant3	20M	BPSK	50	28	DFT-15	Front	15mm	Full	507000	2535	24.10	24.80	1.175	-0.17	0.411	0.483
	N7_Ant3	20M	BPSK	50	28	DFT-15	Back	15mm	Full	507000	2535	24.10	24.80	1.175	0.04	0.493	0.579



# FCC SAR TEST REPORT

Report No. : FA002801-07

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)
	N41_Ant2	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	23.08	24.10	1.265	0.09	0.151	0.191
	N41_Ant2	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	23.08	24.10	1.265	-0.09	0.162	0.205
	N41_Ant2	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	23.02	24.10	1.282	-0.06	0.178	0.228
	N41_Ant2	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	23.02	24.10	1.282	-0.18	0.265	0.340
	N41_Ant2	100M	BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	22.97	24.10	1.297	-0.07	0.181	0.235
	N41_Ant2	100M	BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	22.94	24.10	1.306	-0.08	0.206	0.269
	N41_Ant3	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	24.00	24.80	1.202	0.16	0.404	0.486
	N41_Ant3	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	24.00	24.80	1.202	-0.15	0.486	0.584
	N41_Ant3	100M	BPSK	1	1	DFT-30	Back	15mm	Full	509202	2546.01	23.90	24.80	1.230	0.02	0.462	0.568
	N41_Ant3	100M	BPSK	1	1	DFT-30	Back	15mm	Full	528000	2640	23.94	24.80	1.219	0.07	0.473	0.577
	N41_Ant3	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	23.95	24.80	1.216	0.16	0.401	0.488
	N41_Ant3	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	23.95	24.80	1.216	-0.12	0.472	0.574
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	26.18	26.80	1.153	0.13	0.210	0.242
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	26.18	26.80	1.153	-0.17	0.266	0.307
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	26.03	26.80	1.194	0.13	0.222	0.265
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	26.03	26.80	1.194	-0.04	0.341	0.407
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	26.02	26.80	1.197	0.16	0.310	0.371
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	26.00	26.80	1.202	0.1	0.299	0.359
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	26.00	26.80	1.202	-0.06	0.573	0.689
88	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	26.00	26.80	1.202	0.19	0.646	0.777
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Back	15mm	Full	509202	2546.01	25.84	26.80	1.247	-0.03	0.575	0.717
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Back	15mm	Full	528000	2640	25.94	26.80	1.219	0.06	0.471	0.574
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	25.94	26.80	1.219	0.17	0.542	0.661
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	25.94	26.80	1.219	0.02	0.619	0.755
EN-DC																	
	N41_Ant0	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	23.38	24.10	1.180	-0.06	0.168	0.198
	N41_Ant0	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	23.38	24.10	1.180	0.01	0.534	0.630
	N41_Ant0	100M	BPSK	1	1	DFT-30	Back	15mm	Full	509202	2546.01	23.34	24.10	1.191	0.02	0.386	0.460
	N41_Ant0	100M	BPSK	1	1	DFT-30	Back	15mm	Full	528000	2640	23.30	24.10	1.202	-0.07	0.362	0.435
	N41_Ant0	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	23.35	24.10	1.189	-0.08	0.191	0.227
	N41_Ant0	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	23.35	24.10	1.189	0.1	0.554	0.658
	N41_Ant0	100M	BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	23.32	24.10	1.197	0.04	0.417	0.499
	N41_Ant0	100M	BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	23.27	24.10	1.211	0.12	0.423	0.512
	N41_Ant0	100M	BPSK	270	0	DFT-30	Back	15mm	Full	518598	2592.99	23.33	24.10	1.194	-0.14	0.512	0.611
	N41_Ant1	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	24.22	24.80	1.143	-0.03	0.150	0.171
	N41_Ant1	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	24.22	24.80	1.143	-0.03	0.099	0.113
	N41_Ant1	100M	BPSK	1	1	DFT-30	Front	15mm	Full	509202	2546.01	24.18	24.80	1.153	0.04	0.140	0.161
	N41_Ant1	100M	BPSK	1	1	DFT-30	Front	15mm	Full	528000	2640	24.14	24.80	1.164	0.17	0.139	0.162
	N41_Ant1	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	24.19	24.80	1.151	0.11	0.148	0.170
	N41_Ant1	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	24.19	24.80	1.151	0.16	0.089	0.102
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	26.15	26.80	1.161	0.12	0.159	0.185
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	26.15	26.80	1.161	0.16	0.521	0.605
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Back	15mm	Full	509202	2546.01	26.10	26.80	1.175	0.02	0.421	0.495
	N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Back	15mm	Full	528000	2640	26.08	26.80	1.180	-0.07	0.411	0.485
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	26.13	26.80	1.167	-0.01	0.164	0.191
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	26.13	26.80	1.167	0.05	0.567	0.662
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Back	15mm	Full	509202	2546.01	26.08	26.80	1.180	0.01	0.412	0.486
	N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Back	15mm	Full	528000	2640	26.06	26.80	1.186	-0.01	0.445	0.528
	N41(HPUE)_Ant0	100M	BPSK	270	0	DFT-30	Back	15mm	Full	518598	2592.99	26.11	26.80	1.172	0.04	0.523	0.613
	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Front	15mm	Full	518598	2592.99	25.48	26.80	1.355	-0.01	0.204	0.276
	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Back	15mm	Full	518598	2592.99	25.48	26.80	1.355	0.06	0.132	0.179
	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Front	15mm	Full	509202	2546.01	25.35	26.80	1.396	-0.02	0.182	0.254
	N41(HPUE)_Ant1	100M	BPSK	1	1	DFT-30	Front	15mm	Full	528000	2640	25.20	26.80	1.445	0.03	0.172	0.249
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Front	15mm	Full	518598	2592.99	25.35	26.80	1.396	-0.01	0.195	0.272
	N41(HPUE)_Ant1	100M	BPSK	135	69	DFT-30	Back	15mm	Full	518598	2592.99	25.35	26.80	1.396	0.04	0.116	0.162



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)
	N77_Ant7	100M	BPSK	1	1	DFT-30	Front	15mm	Full	656000	3840	24.22	24.80	1.143	0.13	0.306	0.350
	N77_Ant7	100M	BPSK	1	1	DFT-30	Back	15mm	Full	656000	3840	24.22	24.80	1.143	0.04	0.360	0.411
	N77_Ant7	100M	BPSK	135	69	DFT-30	Front	15mm	Full	656000	3840	24.13	24.80	1.167	0.03	0.315	0.368
90	N77_Ant7	100M	BPSK	135	69	DFT-30	Back	15mm	Full	656000	3840	24.13	24.80	1.167	0.06	0.423	0.494
	N77_Ant7	100M	BPSK	135	69	DFT-30	Back	15mm	Full	650000	3750	23.92	24.80	1.225	-0.11	0.266	0.326
	N77_Ant7	100M	BPSK	135	69	DFT-30	Back	15mm	Full	662000	3930	24.12	24.80	1.169	0.01	0.379	0.443

<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	Full	6	2437	18.01	19.50	1.409	100	1.000	-0.1	0.098	0.138
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Full	6	2437	18.01	19.50	1.409	100	1.000	0.16	0.117	0.165
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Full	1	2412	17.96	19.50	1.426	100	1.000	-0.13	0.086	0.123
91	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 1+2	Full	11	2462	17.91	19.50	1.442	100	1.000	-0.11	0.180	0.260
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 2	Full	6	2437	15.10	16.50	1.380	100	1.000	-0.04	0.054	0.075
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 2	Full	6	2437	15.10	16.50	1.380	100	1.000	0.1	0.045	0.062
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 2	Full	1	2412	14.80	16.50	1.479	100	1.000	0.13	0.075	0.110
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 2	Full	11	2462	14.90	16.50	1.445	100	1.000	-0.02	0.056	0.081



<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	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	Full	58	5290	20.26	22.00	1.493	100	1.000	-0.16	0.172	0.257
92	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	Full	58	5290	20.26	22.00	1.493	100	1.000	0.15	0.471	0.703
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	Reduced Power Level 3/4/5/6/7/8	58	5290	16.28	18.00	1.486	100	1.000	0.15	0.071	0.106
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	Reduced Power Level 3/4/5/6/7/8	58	5290	16.28	18.00	1.486	100	1.000	0.09	0.206	0.306
	WLAN5.5GHz	802.11ax-HE160 MCS0	Front	15mm	Ant 1+2	Full	114	5570	21.49	22.00	1.125	100	1.000	0	0.199	0.224
93	WLAN5.5GHz	802.11ax-HE160 MCS0	Back	15mm	Ant 1+2	Full	114	5570	21.49	22.00	1.125	100	1.000	0.12	0.392	0.441
	WLAN5.5GHz	802.11ax-HE160 MCS0	Front	15mm	Ant 1+2	Reduced Power Level 7/8	114	5570	20.49	21.00	1.125	100	1.000	0.1	0.152	0.171
	WLAN5.5GHz	802.11ax-HE160 MCS0	Back	15mm	Ant 1+2	Reduced Power Level 7/8	114	5570	20.49	21.00	1.125	100	1.000	-0.18	0.319	0.359
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	Full	155	5775	20.18	22.00	1.521	100	1.000	-0.06	0.173	0.263
94	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	Full	155	5775	20.18	22.00	1.521	100	1.000	0.13	0.316	0.480
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 1+2	Reduced Power Level 7/8	155	5775	18.18	20.00	1.521	100	1.000	0.07	0.108	0.164
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 1+2	Reduced Power Level 7/8	155	5775	18.18	20.00	1.521	100	1.000	-0.09	0.188	0.286

<Bluetooth 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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	15mm	Full	39	2441	10.20	12.20	1.585	76.49	1.307	0.15	0.011	0.023
95	Bluetooth	DH5 1Mbps	Back	15mm	Full	39	2441	10.20	12.20	1.585	76.49	1.307	0.06	0.040	0.083
	Bluetooth	DH5 1Mbps	Back	15mm	Full	0	2402	8.50	10.50	1.585	76.49	1.307	0.15	0.025	0.052
	Bluetooth	DH5 1Mbps	Back	15mm	Full	78	2480	9.40	11.40	1.585	76.49	1.307	0.18	0.033	0.068



**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	Bottom Side	0mm	Reduced	1312	1712.4	20.32	21.00	1.169	0.15	1.070	1.251
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	0mm	Reduced	1413	1732.6	20.44	21.00	1.138	-0.19	1.140	1.297
96	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	0mm	Reduced	1513	1752.6	20.40	21.00	1.148	-0.19	1.210	<b>1.389</b>
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	7mm	Full	1513	1752.6	24.38	24.80	1.102	-0.09	1.030	1.135
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	7mm	Full	1312	1712.4	24.41	24.80	1.094	0.01	0.980	1.072
	WCDMA IV_LAT	RMC 12.2Kbps	Bottom Side	7mm	Full	1413	1732.6	24.48	24.80	1.076	0.15	1.010	1.087
97	WCDMA II_LAT	RMC 12.2Kbps	Back	0mm	Reduced	9400	1880	19.75	20.30	1.135	0.05	1.790	<b>2.032</b>
	WCDMA II_LAT	RMC 12.2Kbps	Back	0mm	Reduced	9262	1852.4	19.66	20.30	1.159	-0.05	1.680	1.947
	WCDMA II_LAT	RMC 12.2Kbps	Back	0mm	Reduced	9538	1907.6	19.74	20.30	1.138	0.15	1.690	1.923
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	0mm	Reduced	9400	1880	19.75	20.30	1.135	0.07	0.965	1.095
	WCDMA II_LAT	RMC 12.2Kbps	Back	8mm	Full	9400	1880	24.38	24.80	1.102	0.05	0.901	0.992
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	7mm	Full	9400	1880	24.38	24.80	1.102	-0.16	1.180	1.300
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	7mm	Full	9262	1852.4	24.36	24.80	1.107	0.05	1.130	1.250
	WCDMA II_LAT	RMC 12.2Kbps	Bottom Side	7mm	Full	9538	1907.6	24.35	24.80	1.109	-0.05	1.140	1.264

**<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 BC1_LAT	RTAP 153.6Kbps	Back	0mm	Reduced	600	1880	20.03	21.20	1.309	0.12	1.910	2.501
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	0mm	Reduced	600	1880	20.03	21.20	1.309	-0.04	1.200	1.571
98	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	0mm	Reduced	25	1851.25	19.68	21.20	1.419	-0.19	1.810	<b>2.568</b>
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	0mm	Reduced	1175	1908.75	19.81	21.20	1.377	0.07	1.860	2.562
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Back	8mm	Full	25	1851.25	23.61	24.80	1.315	-0.19	0.324	0.426
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	7mm	Full	600	1880	23.64	24.80	1.306	-0.18	0.409	0.534
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	7mm	Full	25	1851.25	23.61	24.80	1.315	-0.02	0.417	0.548
	CDMA2000 BC1_LAT	RTAP 153.6Kbps	Bottom Side	7mm	Full	1175	1908.75	23.35	24.80	1.396	-0.15	0.413	0.577



**FCC SAR TEST REPORT**

Report No. : FA002801-07

**<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 10g SAR (W/kg)	Reported 10g SAR (W/kg)
EN-DC																
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	0mm	Reduced	132322	1745	18.37	19.00	1.156	0.03	1.090	1.260
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	0mm	Reduced	132322	1745	18.37	19.00	1.156	0.06	1.790	2.069
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	0mm	Reduced	132072	1720	18.33	19.00	1.167	0.03	1.540	1.797
99	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	0mm	Reduced	132572	1770	18.29	19.00	1.178	0.03	1.850	2.179
	LTE Band 66_Ant0	20M	QPSK	50	24	Back	0mm	Reduced	132322	1745	18.34	19.00	1.164	0.01	1.060	1.234
	LTE Band 66_Ant0	20M	QPSK	50	24	Top Side	0mm	Reduced	132322	1745	18.34	19.00	1.164	0.05	1.760	2.049
	LTE Band 66_Ant0	20M	QPSK	50	24	Top Side	0mm	Reduced	132072	1720	18.30	19.00	1.175	-0.08	1.460	1.715
	LTE Band 66_Ant0	20M	QPSK	50	24	Top Side	0mm	Reduced	132572	1770	18.16	19.00	1.213	0	1.760	2.136
	LTE Band 66_Ant0	20M	QPSK	100	0	Top Side	0mm	Reduced	132322	1745	18.32	19.00	1.169	0.02	1.720	2.012
	LTE Band 66_Ant0	20M	QPSK	1	0	Back	8mm	Full	132322	1745	23.77	24.80	1.268	0.02	0.824	1.045
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	9mm	Full	132572	1770	23.63	24.80	1.309	-0.16	1.060	1.388
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	9mm	Full	132072	1720	23.71	24.80	1.285	0.06	0.861	1.107
	LTE Band 66_Ant0	20M	QPSK	1	0	Top Side	9mm	Full	132322	1745	23.77	24.80	1.268	-0.15	0.787	0.998
	LTE Band 66_Ant0	20M	QPSK	50	24	Back	8mm	Full	132322	1745	22.80	23.80	1.259	-0.17	0.683	0.860
	LTE Band 66_Ant0	20M	QPSK	50	24	Top Side	9mm	Full	132572	1770	22.75	23.80	1.274	-0.05	0.821	1.046
	LTE Band 25_LAT	20M	QPSK	1	49	Bottom Side	0mm	Reduced	26590	1905	20.05	21.00	1.245	0.11	0.845	1.052
	LTE Band 25_LAT	20M	QPSK	50	24	Bottom Side	0mm	Reduced	26590	1905	20.02	21.00	1.253	0.02	0.862	1.080
	LTE Band 25_LAT	20M	QPSK	50	24	Bottom Side	0mm	Reduced	26140	1860	19.93	21.00	1.279	-0.14	0.839	1.073
100	LTE Band 25_LAT	20M	QPSK	50	24	Bottom Side	0mm	Reduced	26340	1880	19.94	21.00	1.276	-0.15	0.848	1.082
	LTE Band 25_LAT	20M	QPSK	1	49	Bottom Side	7mm	Full	26590	1905	23.98	24.80	1.208	0.17	0.843	1.018
	LTE Band 25_LAT	20M	QPSK	1	49	Bottom Side	7mm	Full	26140	1860	23.93	24.80	1.222	-0.11	0.818	0.999
	LTE Band 25_LAT	20M	QPSK	1	49	Bottom Side	7mm	Full	26340	1880	24.00	24.80	1.202	-0.11	0.841	1.011
	LTE Band 25_LAT	20M	QPSK	50	24	Bottom Side	7mm	Full	26340	1880	23.15	23.80	1.161	-0.11	0.691	0.803
	LTE Band 30_UAT	10M	QPSK	1	25	Back	0mm	Full	27710	2310	24.03	24.80	1.194	-0.15	1.420	1.695
101	LTE Band 30_UAT	10M	QPSK	1	25	Left Side	0mm	Full	27710	2310	24.03	24.80	1.194	0.17	2.320	2.770
	LTE Band 30_UAT	10M	QPSK	25	12	Back	0mm	Full	27710	2310	23.19	23.80	1.151	0.13	1.160	1.335
	LTE Band 30_UAT	10M	QPSK	25	12	Left Side	0mm	Full	27710	2310	23.19	23.80	1.151	0.08	1.920	2.210
	LTE Band 30_UAT	10M	QPSK	50	0	Left Side	0mm	Full	27710	2310	23.16	23.80	1.159	0.07	1.080	1.251
	LTE Band 30_LAT	10M	QPSK	1	25	Back	0mm	Reduced	27710	2310	19.82	20.70	1.225	-0.02	2.080	2.547
	LTE Band 30_LAT	10M	QPSK	1	25	Bottom Side	0mm	Reduced	27710	2310	19.82	20.70	1.225	-0.12	0.949	1.162
	LTE Band 30_LAT	10M	QPSK	25	12	Back	0mm	Reduced	27710	2310	19.80	20.70	1.230	0.12	2.110	2.596
	LTE Band 30_LAT	10M	QPSK	25	12	Bottom Side	0mm	Reduced	27710	2310	19.80	20.70	1.230	0.11	0.986	1.213
	LTE Band 30_LAT	10M	QPSK	50	0	Back	0mm	Reduced	27710	2310	19.78	20.70	1.236	-0.01	2.090	2.583
	LTE Band 30_LAT	10M	QPSK	1	25	Back	8mm	Full	27710	2310	24.00	24.80	1.202	0.01	0.745	0.896
	LTE Band 30_LAT	10M	QPSK	1	25	Bottom Side	7mm	Full	27710	2310	24.00	24.80	1.202	0.11	0.924	1.111
	LTE Band 30_LAT	10M	QPSK	25	12	Back	8mm	Full	27710	2310	23.11	23.80	1.172	0.03	0.615	0.721
	LTE Band 30_LAT	10M	QPSK	25	12	Bottom Side	7mm	Full	27710	2310	23.11	23.80	1.172	0.11	0.754	0.884





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 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 7_UAT	20M	QPSK	1	99	Front	0mm	Full	21100	2535	24.19	24.80	1.151	-0.01	1.320	1.519
	LTE Band 7_UAT	20M	QPSK	1	99	Back	0mm	Full	21100	2535	24.19	24.80	1.151	0.1	1.070	1.231
	LTE Band 7_UAT	20M	QPSK	1	99	Left Side	0mm	Full	21100	2535	24.19	24.80	1.151	0.04	1.960	2.256
102	LTE Band 7_UAT	20M	QPSK	1	99	Left Side	0mm	Full	20850	2510	23.99	24.80	1.205	0.17	2.000	2.410
	LTE Band 7_UAT	20M	QPSK	1	99	Left Side	0mm	Full	21350	2560	24.18	24.80	1.153	-0.19	1.900	2.192
	LTE Band 7_UAT	20M	QPSK	50	24	Front	0mm	Full	21100	2535	23.27	23.80	1.130	0.18	1.070	1.209
	LTE Band 7_UAT	20M	QPSK	50	24	Back	0mm	Full	21100	2535	23.27	23.80	1.130	0.01	0.851	0.961
	LTE Band 7_UAT	20M	QPSK	50	24	Left Side	0mm	Full	21100	2535	23.27	23.80	1.130	0.11	1.620	1.830
	LTE Band 7_UAT	20M	QPSK	100	0	Left Side	0mm	Full	21100	2535	23.25	23.80	1.135	0.17	1.600	1.816
	LTE Band 7_LAT	20M	QPSK	1	99	Back	0mm	Reduced	21100	2535	18.30	19.20	1.230	0.15	1.560	1.919
	LTE Band 7_LAT	20M	QPSK	1	99	Bottom Side	0mm	Reduced	21100	2535	18.30	19.20	1.230	0.13	0.898	1.105
	LTE Band 7_LAT	20M	QPSK	50	24	Back	0mm	Reduced	21100	2535	18.27	19.20	1.239	0.15	1.600	1.982
	LTE Band 7_LAT	20M	QPSK	50	24	Back	0mm	Reduced	20850	2510	18.23	19.20	1.250	0.18	1.550	1.938
	LTE Band 7_LAT	20M	QPSK	50	24	Back	0mm	Reduced	21350	2560	18.23	19.20	1.250	-0.12	1.720	2.150
	LTE Band 7_LAT	20M	QPSK	50	24	Bottom Side	0mm	Reduced	21100	2535	18.27	19.20	1.239	0.13	0.910	1.127
	LTE Band 7_LAT	20M	QPSK	100	0	Back	0mm	Reduced	21100	2535	18.30	19.20	1.230	0.15	1.600	1.968
	LTE Band 7_LAT	20M	QPSK	1	99	Back	8mm	Full	21100	2535	24.18	24.80	1.153	0.05	0.757	0.873
	LTE Band 7_LAT	20M	QPSK	1	99	Bottom Side	7mm	Full	21100	2535	24.18	24.80	1.153	-0.18	0.879	1.014
	LTE Band 7_LAT	20M	QPSK	1	99	Bottom Side	7mm	Full	20850	2510	24.15	24.80	1.161	-0.09	0.843	0.979
	LTE Band 7_LAT	20M	QPSK	1	99	Bottom Side	7mm	Full	21350	2560	24.00	24.80	1.202	-0.17	0.775	0.932
	LTE Band 7_LAT	20M	QPSK	50	24	Back	8mm	Full	21350	2560	23.13	23.80	1.167	0.07	0.529	0.617
	LTE Band 7_LAT	20M	QPSK	50	24	Bottom Side	7mm	Full	21100	2535	23.26	23.80	1.132	0.06	0.734	0.831
EN-DC																
	LTE Band 7_Ant0	20M	QPSK	1	99	Back	0mm	Reduced	21100	2535	21.45	22.00	1.135	0.04	1.220	1.385
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	0mm	Reduced	21100	2535	21.45	22.00	1.135	-0.09	1.660	1.884
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	0mm	Reduced	20850	2510	21.44	22.00	1.138	0.04	1.920	2.184
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	0mm	Reduced	21350	2560	21.40	22.00	1.148	-0.13	1.510	1.734
	LTE Band 7_Ant0	20M	QPSK	50	24	Back	0mm	Reduced	21100	2535	21.39	22.00	1.151	0.04	1.290	1.485
	LTE Band 7_Ant0	20M	QPSK	50	24	Top Side	0mm	Reduced	21100	2535	21.39	22.00	1.151	-0.08	1.640	1.887
	LTE Band 7_Ant0	20M	QPSK	50	24	Top Side	0mm	Reduced	20850	2510	21.34	22.00	1.164	0.02	1.860	2.165
	LTE Band 7_Ant0	20M	QPSK	50	24	Top Side	0mm	Reduced	21350	2560	21.37	22.00	1.156	0.02	1.590	1.838
	LTE Band 7_Ant0	20M	QPSK	100	0	Top Side	0mm	Reduced	21100	2535	21.36	22.00	1.159	-0.08	1.860	2.155
	LTE Band 7_Ant0	20M	QPSK	1	99	Back	8mm	Full	21100	2535	24.19	24.80	1.151	-0.08	0.341	0.392
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	9mm	Full	20850	2510	23.99	24.80	1.205	-0.11	0.512	0.617
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	9mm	Full	21100	2535	24.19	24.80	1.151	-0.08	0.504	0.580
	LTE Band 7_Ant0	20M	QPSK	1	99	Top Side	9mm	Full	21350	2560	24.18	24.80	1.153	0.07	0.510	0.588
	LTE Band 7_Ant0	20M	QPSK	50	24	Back	8mm	Full	21100	2535	23.27	23.80	1.130	0.02	0.279	0.315
	LTE Band 7_Ant0	20M	QPSK	50	24	Top Side	9mm	Full	20850	2510	23.07	23.80	1.183	0.05	0.429	0.508



<TDD 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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
	LTE Band 41_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40185	2549.5	24.23	24.80	1.140	62.9	1.006	0.12	1.740	1.996
	LTE Band 41_UAT	20M	QPSK	1	99	Left Side	0mm	Full	39750	2506	23.98	24.80	1.208	62.9	1.006	0.13	1.690	2.053
	LTE Band 41_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40620	2593	24.10	24.80	1.175	62.9	1.006	0.01	1.780	2.104
	LTE Band 41_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41055	2636.5	24.15	24.80	1.161	62.9	1.006	-0.04	1.890	2.208
	LTE Band 41_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41490	2680	24.17	24.80	1.156	62.9	1.006	-0.18	1.840	2.140
	LTE Band 41C_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40185(PCC)+40383(SCC)	2549.5(PCC)+2569.3(SCC)	23.28	23.80	1.127	62.9	1.006	0.12	1.500	1.701
	LTE Band 41C_UAT	20M	QPSK	1	99	Left Side	0mm	Full	39750(PCC)+39948(SCC)	2506(PCC)+2525.8(SCC)	23.22	23.80	1.143	62.9	1.006	0.13	1.490	1.713
	LTE Band 41C_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40620(PCC)+40422(SCC)	2593(PCC)+2573.2(SCC)	23.25	23.80	1.135	62.9	1.006	0.01	1.580	1.804
	LTE Band 41C_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41055(PCC)+40857(SCC)	2636.5(PCC)+2616.7(SCC)	23.10	23.80	1.175	62.9	1.006	-0.04	1.510	1.785
	LTE Band 41C_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41490(PCC)+41292(SCC)	2680(PCC)+2660.2(SCC)	23.14	23.80	1.164	62.9	1.006	-0.18	1.520	1.780
	LTE Band 41_UAT	20M	QPSK	50	24	Left Side	0mm	Full	40185	2549.5	23.30	23.80	1.122	62.9	1.006	-0.15	1.570	1.772
	LTE Band 41_UAT	20M	QPSK	50	24	Left Side	0mm	Full	39750	2506	23.01	23.80	1.199	62.9	1.006	0.02	1.510	1.822
	LTE Band 41_UAT	20M	QPSK	50	24	Left Side	0mm	Full	40620	2593	23.20	23.80	1.148	62.9	1.006	-0.01	1.550	1.790
	LTE Band 41_UAT	20M	QPSK	50	24	Left Side	0mm	Full	41055	2636.5	23.23	23.80	1.140	62.9	1.006	-0.12	1.460	1.675
	LTE Band 41_UAT	20M	QPSK	50	24	Left Side	0mm	Full	41490	2680	23.28	23.80	1.127	62.9	1.006	-0.05	1.620	1.837
	LTE Band 41_UAT	20M	QPSK	100	0	Left Side	0mm	Full	40185	2549.5	23.27	23.80	1.130	62.9	1.006	0.04	1.570	1.784
	LTE Band 41(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40185	2549.5	26.15	26.80	1.161	42.9	1.009	0.18	1.870	2.191
	LTE Band 41(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	39750	2506	25.88	26.80	1.236	42.9	1.009	-0.04	1.680	2.095
	LTE Band 41(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40620	2593	26.06	26.80	1.186	42.9	1.009	0.13	1.840	2.201
103	LTE Band 41(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41055	2636.5	26.10	26.80	1.175	42.9	1.009	0.03	1.900	2.252
	LTE Band 41(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41490	2680	26.12	26.80	1.169	42.9	1.009	-0.13	1.850	2.183
	LTE Band 41C(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40185(PCC)+40383(SCC)	2549.5(PCC)+2569.3(SCC)	25.25	25.80	1.135	42.9	1.009	0.12	1.500	1.718
	LTE Band 41C(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	39750(PCC)+39948(SCC)	2506(PCC)+2525.8(SCC)	25.08	25.80	1.180	42.9	1.009	0.13	1.510	1.798
	LTE Band 41C(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	40620(PCC)+40422(SCC)	2593(PCC)+2573.2(SCC)	25.20	25.80	1.148	42.9	1.009	0.01	1.630	1.888
	LTE Band 41C(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41055(PCC)+40857(SCC)	2636.5(PCC)+2616.7(SCC)	25.23	25.80	1.140	42.9	1.009	-0.04	1.530	1.760
	LTE Band 41C(HPUE)_UAT	20M	QPSK	1	99	Left Side	0mm	Full	41490(PCC)+41292(SCC)	2680(PCC)+2660.2(SCC)	25.19	25.80	1.151	42.9	1.009	-0.18	1.320	1.533
	LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	0mm	Full	40185	2549.5	25.30	25.80	1.122	42.9	1.009	-0.09	1.520	1.721
	LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	0mm	Full	39750	2506	25.07	25.80	1.183	42.9	1.009	0.19	1.540	1.838
	LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	0mm	Full	40620	2593	25.23	25.80	1.140	42.9	1.009	-0.17	1.500	1.726
	LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	0mm	Full	41055	2636.5	25.27	25.80	1.130	42.9	1.009	0.16	1.660	1.892
	LTE Band 41(HPUE)_UAT	20M	QPSK	50	24	Left Side	0mm	Full	41490	2680	25.27	25.80	1.130	42.9	1.009	-0.15	1.680	1.915
	LTE Band 41(HPUE)_UAT	20M	QPSK	100	0	Left Side	0mm	Full	40185	2549.5	25.38	25.80	1.102	42.9	1.009	-0.12	1.500	1.667
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	0mm	Full	56640	3690	23.57	24.80	1.327	62.9	1.006	-0.17	1.890	2.524
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	0mm	Full	55340	3560	23.38	24.80	1.387	62.9	1.006	0.11	1.750	2.441
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	0mm	Full	55830	3609	23.46	24.80	1.361	62.9	1.006	0.18	1.840	2.520
	LTE Band 48_UAT	20M	QPSK	1	0	Left Side	0mm	Full	56150	3641	23.49	24.80	1.352	62.9	1.006	0.17	1.800	2.448
104	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	0mm	Full	56640	3690	22.75	23.80	1.274	62.9	1.006	0.16	2.000	2.562
	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	0mm	Full	55340	3560	22.58	23.80	1.324	62.9	1.006	-0.1	1.780	2.371
	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	0mm	Full	55830	3609	22.68	23.80	1.294	62.9	1.006	0.15	1.920	2.500
	LTE Band 48_UAT	20M	QPSK	50	0	Left Side	0mm	Full	56150	3641	22.73	23.80	1.279	62.9	1.006	0.12	1.830	2.355
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	0mm	Full	56640(PCC)+ 56442(SCC)	3690(PCC)+3670.2(SCC)	23.52	24.80	1.343	62.9	1.006	0.16	1.860	2.513
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	0mm	Full	55340(PCC)+ 55538(SCC)	3560(PCC)+3579.8(SCC)	23.50	24.80	1.349	62.9	1.006	-0.1	1.830	2.483
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	0mm	Full	55830(PCC)+ 55632(SCC)	3609(PCC)+3589.2(SCC)	23.49	24.80	1.352	62.9	1.006	0.15	1.840	2.503
	LTE Band 48C_UAT	20M	QPSK	50	0	Left Side	0mm	Full	56150(PCC)+ 55952(SCC)	3641(PCC)+3621.2(SCC)	23.36	24.80	1.393	62.9	1.006	0.12	1.750	2.453
	LTE Band 48_UAT	20M	QPSK	100	0	Left Side	0mm	Full	56640	3690	22.73	23.80	1.279	62.9	1.006	0.07	1.870	2.407

**<5G NR 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 10g SAR (W/kg)	Reported 10g SAR (W/kg)	
	N66_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	349000	1745	24.21	24.80	1.146	-0.05	1.760	2.016	
	N66_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	344000	1720	24.18	24.80	1.153	0.02	1.910	2.203	
	N66_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	354000	1770	24.14	24.80	1.164	-0.16	1.804	2.100	
	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	349000	1745	24.15	24.80	1.161	0.19	1.830	2.125	
105	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	344000	1720	24.13	24.80	1.167	0.04	1.940	2.264	
	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	354000	1770	24.10	24.80	1.175	-0.03	1.830	2.150	
	N66_Ant2	20M	BPSK	100	0	DFT-15	Left Side	0mm	Full	349000	1745	24.08	24.80	1.180	-0.05	1.810	2.136	
EN-DC																		
	N66_Ant0	20M	BPSK	1	1	DFT-15	Back	0mm	Reduced	349000	1745	18.81	19.80	1.256	0.09	0.927	1.164	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Top Side	0mm	Reduced	349000	1745	18.81	19.80	1.256	0.04	1.620	2.035	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Top Side	0mm	Reduced	344000	1720	18.78	19.80	1.265	0.02	1.450	1.834	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Top Side	0mm	Reduced	354000	1770	18.70	19.80	1.288	0.09	1.430	1.842	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Back	0mm	Reduced	349000	1745	18.78	19.80	1.265	-0.05	1.010	1.277	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	0mm	Reduced	349000	1745	18.78	19.80	1.265	0.17	1.680	2.125	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	0mm	Reduced	344000	1720	18.75	19.80	1.274	0.12	1.390	1.770	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	0mm	Reduced	354000	1770	18.69	19.80	1.291	0.08	1.370	1.769	
	N66_Ant0	20M	BPSK	100	0	DFT-15	Top Side	0mm	Reduced	349000	1745	18.75	19.80	1.274	0.14	1.630	2.076	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Back	8mm	Full	349000	1745	23.95	24.80	1.216	0.11	0.508	0.618	
	N66_Ant0	20M	BPSK	1	1	DFT-15	Top Side	9mm	Full	349000	1745	23.95	24.80	1.216	0.12	0.551	0.670	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Back	8mm	Full	349000	1745	23.93	24.80	1.222	-0.05	0.523	0.639	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	9mm	Full	349000	1745	23.93	24.80	1.222	0.03	0.565	0.690	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	9mm	Full	344000	1720	23.87	24.80	1.239	-0.05	0.552	0.684	
	N66_Ant0	20M	BPSK	50	28	DFT-15	Top Side	9mm	Full	354000	1770	23.80	24.80	1.259	0.14	0.624	0.786	
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	376500	1882.5	24.16	24.80	1.159	-0.18	2.160	2.503	
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	372000	1860	24.09	24.80	1.178	-0.11	2.220	2.614	
	N25_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	381000	1905	24.13	24.80	1.167	0.14	2.120	2.474	
	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	376500	1882.5	24.12	24.80	1.169	0	2.170	2.538	
106	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	372000	1860	24.08	24.80	1.180	-0.1	2.340	2.762	
	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	381000	1905	24.10	24.80	1.175	0.14	2.240	2.632	
	N25_Ant2	20M	BPSK	100	0	DFT-15	Left Side	0mm	Full	376500	1882.5	24.00	24.80	1.202	0.01	2.090	2.513	
	N25_Ant3	20M	BPSK	1	1	DFT-15	Bottom Side	0mm	Reduced	376500	1882.5	20.09	21.30	1.321	-0.06	0.766	1.012	
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	0mm	Reduced	376500	1882.5	20.07	21.30	1.327	0.19	0.789	1.047	
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	0mm	Reduced	372000	1860	19.90	21.30	1.380	0.05	0.894	1.234	
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	0mm	Reduced	381000	1905	19.99	21.30	1.352	-0.14	0.830	1.122	
	N25_Ant3	20M	BPSK	1	1	DFT-15	Bottom Side	7mm	Full	376500	1882.5	24.06	24.80	1.186	-0.13	0.751	0.891	
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	7mm	Full	372000	1860	23.89	24.80	1.233	-0.01	0.903	1.113	
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	7mm	Full	376500	1882.5	24.03	24.80	1.194	-0.17	0.899	1.073	
	N25_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	7mm	Full	381000	1905	23.95	24.80	1.216	-0.01	0.947	1.152	



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)
	N7_Ant2	20M	BPSK	1	1	DFT-15	Front	0mm	Full	507000	2535	24.14	24.80	1.164	-0.06	1.250	1.455
	N7_Ant2	20M	BPSK	1	1	DFT-15	Back	0mm	Full	507000	2535	24.14	24.80	1.164	-0.14	0.927	1.079
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	507000	2535	24.14	24.80	1.164	-0.17	1.810	2.107
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	502000	2510	24.01	24.80	1.199	-0.14	1.720	2.063
	N7_Ant2	20M	BPSK	1	1	DFT-15	Left Side	0mm	Full	512000	2560	24.04	24.80	1.191	-0.12	1.830	2.180
	N7_Ant2	20M	BPSK	50	28	DFT-15	Front	0mm	Full	507000	2535	24.08	24.80	1.180	-0.06	1.370	1.617
	N7_Ant2	20M	BPSK	50	28	DFT-15	Back	0mm	Full	507000	2535	24.08	24.80	1.180	0.02	0.960	1.133
	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	507000	2535	24.08	24.80	1.180	-0.14	1.930	2.278
	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	502000	2510	23.96	24.80	1.213	0.18	1.810	2.196
107	N7_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	512000	2560	24.00	24.80	1.202	-0.14	2.000	2.405
	N7_Ant2	20M	BPSK	100	0	DFT-15	Left Side	0mm	Full	507000	2535	24.04	24.80	1.191	0.13	1.940	2.311
	N7_Ant3	20M	BPSK	1	1	DFT-15	Back	0mm	Reduced	507000	2535	18.87	19.80	1.239	0.19	1.500	1.858
	N7_Ant3	20M	BPSK	1	1	DFT-15	Bottom Side	0mm	Reduced	507000	2535	18.87	19.80	1.239	-0.01	0.718	0.889
	N7_Ant3	20M	BPSK	50	28	DFT-15	Back	0mm	Reduced	507000	2535	18.85	19.80	1.245	-0.18	1.540	1.917
	N7_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	0mm	Reduced	507000	2535	18.85	19.80	1.245	0.07	0.720	0.896
	N7_Ant3	20M	BPSK	50	28	DFT-15	Back	0mm	Reduced	502000	2510	18.81	19.80	1.256	-0.16	1.610	2.022
	N7_Ant3	20M	BPSK	50	28	DFT-15	Back	0mm	Reduced	512000	2560	18.78	19.80	1.265	0.04	1.370	1.733
	N7_Ant3	20M	BPSK	100	0	DFT-15	Back	0mm	Reduced	507000	2535	18.82	19.30	1.117	0.01	1.430	1.597
	N7_Ant3	20M	BPSK	1	1	DFT-15	Back	8mm	Full	507000	2535	24.15	24.80	1.161	-0.12	0.854	0.992
	N7_Ant3	20M	BPSK	1	1	DFT-15	Bottom Side	7mm	Full	507000	2535	24.15	24.80	1.161	-0.1	1.160	1.347
	N7_Ant3	20M	BPSK	50	28	DFT-15	Back	8mm	Full	502000	2510	24.02	24.80	1.197	-0.17	0.862	1.032
	N7_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	7mm	Full	507000	2535	24.10	24.80	1.175	0.06	1.170	1.375
	N7_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	7mm	Full	502000	2510	24.02	24.80	1.197	0.09	1.110	1.328
	N7_Ant3	20M	BPSK	50	28	DFT-15	Bottom Side	7mm	Full	512000	2560	24.00	24.80	1.202	-0.18	1.110	1.335



# FCC SAR TEST REPORT

Report No. : FA002801-07

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)
	N41_Ant2	100M	BPSK	1	1	DFT-30	Front	0mm	Full	518598	2592.99	23.08	24.10	1.265	-0.04	1.070	1.353
	N41_Ant2	100M	BPSK	1	1	DFT-30	Back	0mm	Full	518598	2592.99	23.08	24.10	1.265	-0.04	0.881	1.114
	N41_Ant2	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	518598	2592.99	23.08	24.10	1.265	0.16	1.590	2.011
	N41_Ant2	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	509202	2546.01	23.00	24.10	1.288	-0.19	1.500	1.932
	N41_Ant2	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	528000	2640	22.96	24.10	1.300	0.08	1.550	2.015
	N41_Ant2	100M	BPSK	135	69	DFT-30	Front	0mm	Full	518598	2592.99	23.02	24.10	1.282	0.09	1.140	1.462
	N41_Ant2	100M	BPSK	135	69	DFT-30	Back	0mm	Full	518598	2592.99	23.02	24.10	1.282	-0.08	0.933	1.196
	N41_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	518598	2592.99	23.02	24.10	1.282	0.17	1.580	2.026
	N41_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	509202	2546.01	22.97	24.10	1.297	0.17	1.520	1.972
	N41_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	528000	2640	22.94	24.10	1.306	0	1.570	2.051
	N41_Ant2	100M	BPSK	270	0	DFT-30	Left Side	0mm	Full	518598	2592.99	22.52	23.60	1.282	0	1.070	1.372
	N41_Ant3	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	518598	2592.99	19.10	20.20	1.288	-0.18	1.710	2.203
	N41_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	0mm	Reduced	518598	2592.99	19.10	20.20	1.288	0.02	0.883	1.138
	N41_Ant3	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	509202	2546.01	19.09	20.20	1.291	0.01	1.770	2.285
	N41_Ant3	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	528000	2640	19.07	20.20	1.297	-0.12	0.971	1.260
	N41_Ant3	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	518598	2592.99	19.07	20.20	1.297	0.09	1.540	1.998
	N41_Ant3	100M	BPSK	135	69	DFT-30	Bottom Side	0mm	Reduced	518598	2592.99	19.07	20.20	1.297	-0.02	0.768	0.996
	N41_Ant3	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	509202	2546.01	19.06	20.20	1.300	-0.18	1.510	1.963
	N41_Ant3	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	528000	2640	19.04	20.20	1.306	-0.14	0.770	1.006
	N41_Ant3	100M	BPSK	270	0	DFT-30	Back	0mm	Reduced	518598	2592.99	19.04	20.20	1.306	-0.12	1.410	1.842
	N41_Ant3	100M	BPSK	1	1	DFT-30	Back	8mm	Full	509202	2546.01	23.90	24.80	1.230	0.1	0.731	0.899
	N41_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	7mm	Full	518598	2592.99	24.00	24.80	1.202	-0.04	0.943	1.134
	N41_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	7mm	Full	509202	2546.01	23.90	24.80	1.230	-0.05	1.090	1.341
	N41_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	7mm	Full	528000	2640	23.94	24.80	1.219	-0.01	1.030	1.256
	N41_Ant3	100M	BPSK	135	69	DFT-30	Back	8mm	Full	518598	2592.99	23.95	24.80	1.216	0.02	0.752	0.915
	N41_Ant3	100M	BPSK	135	69	DFT-30	Bottom Side	7mm	Full	518598	2592.99	23.95	24.80	1.216	-0.01	0.986	1.199
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Front	0mm	Full	518598	2592.99	26.18	26.80	1.153	-0.04	1.460	1.684
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Back	0mm	Full	518598	2592.99	26.18	26.80	1.153	-0.07	1.170	1.350
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	518598	2592.99	26.18	26.80	1.153	0.02	1.900	2.192
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	509202	2546.01	26.12	26.80	1.169	0.09	1.420	1.661
	N41(HPUE)_Ant2	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	528000	2640	26.11	26.80	1.172	0.19	1.610	1.887
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Front	0mm	Full	518598	2592.99	26.03	26.80	1.194	-0.09	1.460	1.743
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Back	0mm	Full	518598	2592.99	26.03	26.80	1.194	-0.01	1.280	1.528
108	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	518598	2592.99	26.03	26.80	1.194	-0.17	2.060	2.460
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	509202	2546.01	26.02	26.80	1.197	-0.07	1.370	1.640
	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	528000	2640	26.00	26.80	1.202	-0.05	1.670	2.008
	N41(HPUE)_Ant2	100M	BPSK	270	0	DFT-30	Left Side	0mm	Full	518598	2592.99	25.88	26.30	1.102	-0.1	1.380	1.520
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Front	0mm	Reduced	518598	2592.99	19.10	20.20	1.288	0.02	1.020	1.314
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	518598	2592.99	19.10	20.20	1.288	-0.12	1.730	2.229
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	0mm	Reduced	518598	2592.99	19.10	20.20	1.288	0	0.852	1.098
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	509202	2546.01	19.06	20.20	1.300	-0.04	1.810	2.353
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	528000	2640	19.05	20.20	1.303	0.11	1.560	2.033
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Front	0mm	Reduced	518598	2592.99	19.07	20.20	1.297	-0.06	1.010	1.310
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	518598	2592.99	19.07	20.20	1.297	-0.09	1.580	2.050
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Bottom Side	0mm	Reduced	518598	2592.99	19.07	20.20	1.297	-0.06	0.747	0.969
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	509202	2546.01	19.03	20.20	1.309	-0.03	1.530	2.003
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	528000	2640	19.01	20.20	1.315	0.09	1.520	1.999
	N41(HPUE)_Ant3	100M	BPSK	270	0	DFT-30	Back	0mm	Reduced	518598	2592.99	19.06	20.20	1.300	0.03	1.660	2.158
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Front	5mm	Full	518598	2592.99	26.00	26.80	1.202	0.01	1.180	1.419
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Back	8mm	Full	509202	2546.01	25.84	26.80	1.247	-0.06	1.040	1.297
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	7mm	Full	518598	2592.99	26.00	26.80	1.202	-0.18	1.420	1.707
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	7mm	Full	509202	2546.01	25.84	26.80	1.247	0.09	1.510	1.884
	N41(HPUE)_Ant3	100M	BPSK	1	1	DFT-30	Bottom Side	7mm	Full	528000	2640	25.94	26.80	1.219	0.07	1.620	1.975
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Front	5mm	Full	518598	2592.99	25.94	26.80	1.219	-0.01	0.824	1.004
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Back	8mm	Full	518598	2592.99	25.94	26.80	1.219	-0.1	0.707	0.862
	N41(HPUE)_Ant3	100M	BPSK	135	69	DFT-30	Bottom Side	7mm	Full	518598	2592.99	25.94	26.80	1.219	0.11	1.100	1.341



EN-DC																	
N41_Ant0	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	518598	2592.99	19.24	20.00	1.191	0.07	1.040	1.239	
N41_Ant0	100M	BPSK	1	1	DFT-30	Top Side	0mm	Reduced	518598	2592.99	19.24	20.00	1.191	0.05	1.430	1.703	
N41_Ant0	100M	BPSK	1	1	DFT-30	Top Side	0mm	Reduced	509202	2546.01	19.13	20.00	1.222	0.04	1.760	2.150	
N41_Ant0	100M	BPSK	1	1	DFT-30	Top Side	0mm	Reduced	528000	2640	19.17	20.00	1.211	-0.16	1.580	1.913	
N41_Ant0	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	518598	2592.99	19.22	20.00	1.197	0.02	1.020	1.221	
N41_Ant0	100M	BPSK	135	69	DFT-30	Top Side	0mm	Reduced	518598	2592.99	19.22	20.00	1.197	-0.04	1.290	1.544	
N41_Ant0	100M	BPSK	135	69	DFT-30	Top Side	0mm	Reduced	509202	2546.01	19.10	20.00	1.230	-0.11	1.710	2.104	
N41_Ant0	100M	BPSK	135	69	DFT-30	Top Side	0mm	Reduced	528000	2640	19.15	20.00	1.216	0.09	1.560	1.897	
N41_Ant0	100M	BPSK	270	0	DFT-30	Top Side	0mm	Reduced	518598	2592.99	19.20	20.00	1.202	0.05	1.310	1.575	
N41_Ant0	100M	BPSK	1	1	DFT-30	Back	8mm	Full	518598	2592.99	23.38	24.10	1.180	0.05	0.482	0.569	
N41_Ant0	100M	BPSK	1	1	DFT-30	Top Side	9mm	Full	509202	2546.01	23.34	24.10	1.191	0.03	0.719	0.857	
N41_Ant0	100M	BPSK	135	69	DFT-30	Back	8mm	Full	518598	2592.99	23.35	24.10	1.189	0.17	0.503	0.598	
N41_Ant0	100M	BPSK	135	69	DFT-30	Top Side	9mm	Full	509202	2546.01	23.32	24.10	1.197	-0.01	0.762	0.912	
N41_Ant0	100M	BPSK	135	69	DFT-30	Top Side	9mm	Full	518598	2592.99	23.35	24.10	1.189	-0.05	0.753	0.895	
N41_Ant0	100M	BPSK	135	69	DFT-30	Top Side	9mm	Full	528000	2640	23.27	24.10	1.211	-0.04	0.772	0.935	
N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Back	0mm	Reduced	518598	2592.99	19.24	20.00	1.191	0.07	1.040	1.239	
N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Top Side	0mm	Reduced	518598	2592.99	19.24	20.00	1.191	0.05	1.430	1.703	
N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Top Side	0mm	Reduced	509202	2546.01	19.13	20.00	1.222	0.04	1.760	2.150	
N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Top Side	0mm	Reduced	528000	2640	19.17	20.00	1.211	-0.16	1.580	1.913	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Back	0mm	Reduced	518598	2592.99	19.22	20.00	1.197	0.02	1.020	1.221	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Top Side	0mm	Reduced	518598	2592.99	19.22	20.00	1.197	-0.04	1.290	1.544	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Top Side	0mm	Reduced	509202	2546.01	19.10	20.00	1.230	-0.11	1.710	2.104	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Top Side	0mm	Reduced	528000	2640	19.15	20.00	1.216	0.09	1.560	1.897	
N41(HPUE)_Ant0	100M	BPSK	270	0	DFT-30	Top Side	0mm	Reduced	518598	2592.99	19.20	20.00	1.202	0.05	1.310	1.575	
N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Back	8mm	Full	518598	2592.99	26.15	26.80	1.161	0.04	0.492	0.571	
N41(HPUE)_Ant0	100M	BPSK	1	1	DFT-30	Top Side	9mm	Full	509202	2546.01	26.10	26.80	1.175	0.06	0.734	0.862	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Back	8mm	Full	518598	2592.99	26.13	26.80	1.167	-0.1	0.529	0.617	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Top Side	9mm	Full	509202	2546.01	26.08	26.80	1.180	0.05	0.767	0.905	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Top Side	9mm	Full	518598	2592.99	26.13	26.80	1.167	0.04	0.758	0.884	
N41(HPUE)_Ant0	100M	BPSK	135	69	DFT-30	Top Side	9mm	Full	528000	2640	26.06	26.80	1.186	0.01	0.792	0.939	

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)
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	656000	3840	24.22	24.80	1.143	-0.02	1.790	2.046
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	650000	3750	23.97	24.80	1.211	-0.16	1.980	2.397
	N77_Ant7	100M	BPSK	1	1	DFT-30	Left Side	0mm	Full	662000	3930	24.15	24.80	1.161	0.02	2.140	2.486
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	656000	3840	24.13	24.80	1.167	0.18	1.820	2.124
	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	650000	3750	23.92	24.80	1.225	-0.1	2.030	2.486
109	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	662000	3930	24.12	24.80	1.169	-0.09	2.250	2.631
	N77_Ant7	100M	BPSK	270	0	DFT-30	Left Side	0mm	Full	656000	3840	24.17	24.80	1.156	0.1	1.810	2.093



<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 10g SAR (W/kg)	Reported 10g SAR (W/kg)
110	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	Full	42	5210	20.37	22.00	1.455	100	1.000	0.18	1.670	2.431
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	Reduced Power Level 3/4/5/6/7/8	42	5210	16.37	18.00	1.455	100	1.000	-0.11	0.660	0.961
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 1+2	Full	58	5290	20.26	22.00	1.493	100	1.000	-0.04	0.582	0.869
111	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	Full	58	5290	20.26	22.00	1.493	100	1.000	-0.04	1.780	2.657
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 1+2	Full	58	5290	20.26	22.00	1.493	100	1.000	0	1.290	1.926
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 1+2	Full	58	5290	20.26	22.00	1.493	100	1.000	0.07	0.524	0.782
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 1+2	Reduced Power Level 3/4/5/6/7/8	58	5290	16.26	18.00	1.493	100	1.000	-0.15	0.238	0.355
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 1+2	Reduced Power Level 3/4/5/6/7/8	58	5290	16.26	18.00	1.493	100	1.000	0.18	0.716	1.069
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 1+2	Reduced Power Level 3/4/5/6/7/8	58	5290	16.26	18.00	1.493	100	1.000	0.15	0.513	0.766
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 1+2	Reduced Power Level 3/4/5/6/7/8	58	5290	16.26	18.00	1.493	100	1.000	-0.11	0.213	0.318
	WLAN5.5GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 1+2	Full	114	5570	21.49	22.00	1.125	100	1.000	0.06	0.940	1.057
	WLAN5.5GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 1+2	Full	114	5570	21.49	22.00	1.125	100	1.000	0.04	0.883	0.993
112	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Side	0mm	Ant 1+2	Full	114	5570	21.49	22.00	1.125	100	1.000	-0.05	1.030	1.158
	WLAN5.5GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 1+2	Full	114	5570	21.49	22.00	1.125	100	1.000	-0.07	0.890	1.001
	WLAN5.5GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 1+2	Reduced Power Level 7/8	114	5570	20.49	21.00	1.125	100	1.000	0.19	0.653	0.734
	WLAN5.5GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 1+2	Reduced Power Level 7/8	114	5570	20.49	21.00	1.125	100	1.000	-0.14	0.547	0.615
	WLAN5.5GHz	802.11ax-HE160 MCS0	Right Side	0mm	Ant 1+2	Reduced Power Level 7/8	114	5570	20.49	21.00	1.125	100	1.000	-0.18	0.798	0.897
	WLAN5.5GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 1+2	Reduced Power Level 7/8	114	5570	20.49	21.00	1.125	100	1.000	-0.09	0.570	0.641

**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)	1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	CDMA2000 BC10_UAT	-	-	-	-	RC3 SO55	Right Cheek	0mm	Full	476	817.9	23.96	24.70	1.186	-0.07	0.999	1	1.185
2nd	CDMA2000 BC10_UAT	-	-	-	-	RC3 SO55	Right Cheek	0mm	Full	476	817.9	23.96	24.70	1.186	0.04	0.986	1.013	1.169
1st	LTE Band 12_UAT	10M	QPSK	1	49	-	Right Cheek	0mm	Full	23095	707.5	23.71	24.80	1.285	0.05	0.862	1	1.108
2nd	LTE Band 12_UAT	10M	QPSK	1	49	-	Right Cheek	0mm	Full	23095	707.5	23.71	24.80	1.285	0.06	0.856	1.007	1.100
1st	LTE Band 30_UAT	10M	QPSK	1	25	-	Right Cheek	0mm	Reduced Power Level 1/2/3	27710	2310	16.89	17.50	1.151	0.05	0.989	1	1.138
2nd	LTE Band 30_UAT	10M	QPSK	1	25	-	Right Cheek	0mm	Reduced Power Level 1/2/3	27710	2310	16.89	17.50	1.151	-0.11	0.976	1.013	1.123
1st	N25_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Reduced Power Level 1/2/3	381000	1905	17.34	18.20	1.219	-0.13	0.932	1	1.136
2nd	N25_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Reduced Power Level 1/2/3	381000	1905	17.34	18.20	1.219	-0.01	0.928	1.004	1.131
1st	N7_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Reduced Power Level 1/2/3	502000	2510	15.56	16.20	1.159	0.17	0.988	1	1.145
2nd	N7_Ant2	20M	BPSK	50	28	DFT-15	Right Cheek	0mm	Reduced Power Level 1/2/3	502000	2510	15.56	16.20	1.159	0.05	0.973	1.015	1.127
1st	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Reduced Power Level 1	656000	3840	17.41	18.20	1.199	0.01	0.980	1	1.176
2nd	N77_Ant7	100M	BPSK	135	69	DFT-30	Right Cheek	0mm	Reduced Power Level 1	656000	3840	17.41	18.20	1.199	-0.04	0.972	1.008	1.166
1st	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	354000	1770	23.60	24.40	1.202	-0.08	0.961	1	1.155
2nd	N66_Ant2	20M	BPSK	50	28	DFT-15	Left Side	10mm	Reduced	354000	1770	23.60	24.40	1.202	-0.03	0.945	1.017	1.136

**<10g>**

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)	Ratio	Reported 10g SAR (W/kg)
1st	LTE Band 30_UAT	10M	QPSK	1	25	-	Left Side	0mm	Full	27710	2310	24.03	24.80	1.194	0.17	2.320	1	2.770
2nd	LTE Band 30_UAT	10M	QPSK	1	25	-	Left Side	0mm	Full	27710	2310	24.03	24.80	1.194	0.17	2.280	1.018	2.722
1st	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	372000	1860	24.08	24.80	1.180	-0.1	2.340	1	2.762
2nd	N25_Ant2	20M	BPSK	50	28	DFT-15	Left Side	0mm	Full	372000	1860	24.08	24.80	1.180	-0.11	2.310	1.013	2.727
1st	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	518598	2592.99	26.03	26.80	1.194	-0.17	2.060	1	2.460
2nd	N41(HPUE)_Ant2	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	518598	2592.99	26.03	26.80	1.194	-0.17	2.000	1.03	2.388
1st	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	662000	3930	24.12	24.80	1.169	-0.09	2.250	1	2.631
2nd	N77_Ant7	100M	BPSK	135	69	DFT-30	Left Side	0mm	Full	662000	3930	24.12	24.80	1.169	-0.09	2.200	1.023	2.573

**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.	5G NR + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
38.	LTE + 5G NR + 2.4GHz WLAN MIMO	Yes	Yes	Yes	Yes
39.	5G NR + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
40.	5G NR + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
41.	LTE + 5G NR + WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
42.	LTE + 5G NR + WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
43.	5G NR + Bluetooth	Yes	Yes	Yes	Yes
44.	LTE + 5G NR + Bluetooth	Yes	Yes	Yes	Yes
45.	5G NR + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
46.	5G NR + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
47.	LTE + 5G NR + WLAN5.3/5.5GHz MIMO + Bluetooth	Yes	Yes		Yes
48.	LTE + 5G NR + WLAN5.2/5.8GHz MIMO + Bluetooth	Yes	Yes	Yes	Yes
49.	2.4GHz WLAN Chain1+ Bluetooth	Yes	Yes	Yes	Yes
50.	GSM Voice + 2.4GHz WLAN Chain1+ Bluetooth	Yes	Yes		Yes
51.	GPRS/EDGE + 2.4GHz WLAN Chain1+ Bluetooth	Yes	Yes	Yes	Yes



52.	WCDMA + 2.4GHz WLAN Chain1+ Bluetooth	Yes	Yes	Yes	Yes
53.	LTE + 2.4GHz WLAN Chain1+ Bluetooth	Yes	Yes	Yes	Yes
54.	5G NR + 2.4GHz WLAN Chain1+ Bluetooth	Yes	Yes		Yes
55.	2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
56.	GSM Voice + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
57.	GPRS/EDGE + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
58.	WCDMA + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
59.	LTE + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
60.	5G NR + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.3/5.5GHz MIMO	Yes	Yes		Yes
61.	2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
62.	GSM Voice + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.2/5.8GHz MIMO	Yes	Yes		Yes
63.	GPRS/EDGE + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
64.	WCDMA + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
65.	LTE + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.2/5.8GHz MIMO	Yes	Yes	Yes	Yes
66.	5G NR + 2.4GHz WLAN Chain1+ Bluetooth+ WLAN5.2/5.8GHz MIMO	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, LTE according to the network signal condition; therefore, they will not operate simultaneously at any moment.
3. 5GNR supports SA and NSA mode.
4. The 2.4GHz/5GHz WLAN can transmit in MIMO antenna mode. 2.4G WLAN ANT2 SISO antenna mode can only be enabled when transmitting simultaneously with Bluetooth.
5. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
6. 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).
7. 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.
8. 2.4GHz WLAN Chain0 and Bluetooth share the same antenna, and cannot transmit simultaneously.
9. All licensed modes share the same antenna part and cannot transmit simultaneously.
10. According to the EUT character, WLAN 2.4GHz Chain1 and Bluetooth can transmit simultaneously.
11. According to the EUT character, WLAN 5GHz and Bluetooth can transmit simultaneously.
12. According to the EUT character, WLAN 5GHz and 2.4GHz WLAN can transmit simultaneously.
13. 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.
14. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
15. The reported SAR summation is calculated based on the same configuration and test position.
16. 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)  $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$ , 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**

Exposure Position	2	3	4	6	2+4	3+4+6
	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Right Cheek	0.119	0.104	0.227	0.055	0.346	0.386
Right Tilted	0.128	0.121	0.307	0.030	0.435	0.458
Left Cheek	0.659	0.290	0.625	0.284	1.284	1.199
Left Tilted	0.424	0.195	0.564	0.100	0.988	0.859



WWAN Band		Exposure Position	1	2	3	4	6	1+6	3+6	4+6
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM850_UAT	Right Cheek	1.068	0.193	0.218	0.390	0.055	1.123	0.273	0.445
		Right Tilted	0.590	0.199	0.261	0.508	0.030	0.620	0.291	0.538
		Left Cheek	0.584	1.083	0.606	1.108	0.284	0.868	0.890	1.392
		Left Tilted	0.517	0.695	0.396	1.002	0.100	0.617	0.496	1.102
	GSM1900_UAT	Right Cheek	0.958	0.193	0.218	0.390	0.055	1.013	0.273	0.445
		Right Tilted	0.303	0.199	0.261	0.508	0.030	0.333	0.291	0.538
		Left Cheek	0.296	1.083	0.606	1.108	0.284	0.580	0.890	1.392
		Left Tilted	0.229	0.695	0.396	1.002	0.100	0.329	0.496	1.102
WCDMA	WCDMA V_UAT	Right Cheek	1.175	0.193	0.218	0.390	0.055	1.230	0.273	0.445
		Right Tilted	0.955	0.199	0.261	0.508	0.030	0.985	0.291	0.538
		Left Cheek	0.887	1.083	0.606	1.108	0.284	1.171	0.890	1.392
		Left Tilted	0.822	0.695	0.396	1.002	0.100	0.922	0.496	1.102
	WCDMA IV_UAT	Right Cheek	1.052	0.193	0.218	0.390	0.055	1.107	0.273	0.445
		Right Tilted	0.319	0.199	0.261	0.508	0.030	0.349	0.291	0.538
		Left Cheek	0.314	1.083	0.606	1.108	0.284	0.598	0.890	1.392
		Left Tilted	0.183	0.695	0.396	1.002	0.100	0.283	0.496	1.102
	WCDMA II_UAT	Right Cheek	1.113	0.193	0.218	0.390	0.055	1.168	0.273	0.445
		Right Tilted	0.348	0.199	0.261	0.508	0.030	0.378	0.291	0.538
		Left Cheek	0.337	1.083	0.606	1.108	0.284	0.621	0.890	1.392
		Left Tilted	0.227	0.695	0.396	1.002	0.100	0.327	0.496	1.102
CDMA	CDMA2000 BC10_UAT	Right Cheek	1.185	0.193	0.218	0.390	0.055	1.240	0.273	0.445
		Right Tilted	0.923	0.199	0.261	0.508	0.030	0.953	0.291	0.538
		Left Cheek	0.816	1.083	0.606	1.108	0.284	1.100	0.890	1.392
		Left Tilted	0.774	0.695	0.396	1.002	0.100	0.874	0.496	1.102
	CDMA2000 BC0_UAT	Right Cheek	1.196	0.193	0.218	0.390	0.055	1.251	0.273	0.445
		Right Tilted	0.916	0.199	0.261	0.508	0.030	0.946	0.291	0.538
		Left Cheek	0.810	1.083	0.606	1.108	0.284	1.094	0.890	1.392
		Left Tilted	0.705	0.695	0.396	1.002	0.100	0.805	0.496	1.102
	CDMA2000 BC1_UAT	Right Cheek	1.078	0.193	0.218	0.390	0.055	1.133	0.273	0.445
		Right Tilted	0.231	0.199	0.261	0.508	0.030	0.261	0.291	0.538
		Left Cheek	0.215	1.083	0.606	1.108	0.284	0.499	0.890	1.392
		Left Tilted	0.165	0.695	0.396	1.002	0.100	0.265	0.496	1.102
LTE	LTE Band 71_UAT	Right Cheek	1.039	0.193	0.218	0.390	0.055	1.094	0.273	0.445
		Right Tilted	0.827	0.199	0.261	0.508	0.030	0.857	0.291	0.538
		Left Cheek	0.617	1.083	0.606	1.108	0.284	0.901	0.890	1.392
		Left Tilted	0.593	0.695	0.396	1.002	0.100	0.693	0.496	1.102
	LTE Band 12_UAT	Right Cheek	1.108	0.193	0.218	0.390	0.055	1.163	0.273	0.445
		Right Tilted	1.026	0.199	0.261	0.508	0.030	1.056	0.291	0.538
		Left Cheek	0.797	1.083	0.606	1.108	0.284	1.081	0.890	1.392
		Left Tilted	0.758	0.695	0.396	1.002	0.100	0.858	0.496	1.102
	LTE Band 13_UAT	Right Cheek	0.832	0.193	0.218	0.390	0.055	0.887	0.273	0.445
		Right Tilted	0.569	0.199	0.261	0.508	0.030	0.599	0.291	0.538
		Left Cheek	0.685	1.083	0.606	1.108	0.284	0.969	0.890	1.392
		Left Tilted	0.632	0.695	0.396	1.002	0.100	0.732	0.496	1.102
	LTE Band 5_UAT	Right Cheek	1.192	0.193	0.218	0.390	0.055	1.247	0.273	0.445
		Right Tilted	1.018	0.199	0.261	0.508	0.030	1.048	0.291	0.538
		Left Cheek	1.064	1.083	0.606	1.108	0.284	1.348	0.890	1.392
		Left Tilted	1.001	0.695	0.396	1.002	0.100	1.101	0.496	1.102
	LTE Band 26_UAT	Right Cheek	1.161	0.193	0.218	0.390	0.055	1.216	0.273	0.445
		Right Tilted	0.996	0.199	0.261	0.508	0.030	1.026	0.291	0.538
		Left Cheek	0.958	1.083	0.606	1.108	0.284	1.242	0.890	1.392
		Left Tilted	0.873	0.695	0.396	1.002	0.100	0.973	0.496	1.102



	LTE Band 66_UAT	Right Cheek	1.020	0.193	0.218	0.390	0.055	1.075	0.273	0.445
		Right Tilted	0.326	0.199	0.261	0.508	0.030	0.356	0.291	0.538
		Left Cheek	0.214	1.083	0.606	1.108	0.284	0.498	0.890	1.392
		Left Tilted	0.137	0.695	0.396	1.002	0.100	0.237	0.496	1.102
	LTE Band 25_UAT	Right Cheek	1.118	0.193	0.218	0.390	0.055	1.173	0.273	0.445
		Right Tilted	0.349	0.199	0.261	0.508	0.030	0.379	0.291	0.538
		Left Cheek	0.333	1.083	0.606	1.108	0.284	0.617	0.890	1.392
		Left Tilted	0.231	0.695	0.396	1.002	0.100	0.331	0.496	1.102
	LTE Band 30_UAT	Right Cheek	1.138	0.193	0.218	0.390	0.055	1.193	0.273	0.445
		Right Tilted	0.396	0.199	0.261	0.508	0.030	0.426	0.291	0.538
		Left Cheek	0.302	1.083	0.606	1.108	0.284	0.586	0.890	1.392
		Left Tilted	0.209	0.695	0.396	1.002	0.100	0.309	0.496	1.102
	LTE Band 7_UAT	Right Cheek	1.049	0.193	0.218	0.390	0.055	1.104	0.273	0.445
		Right Tilted	0.384	0.199	0.261	0.508	0.030	0.414	0.291	0.538
		Left Cheek	0.258	1.083	0.606	1.108	0.284	0.542	0.890	1.392
		Left Tilted	0.199	0.695	0.396	1.002	0.100	0.299	0.496	1.102
	LTE Band 41_UAT	Right Cheek	1.108	0.193	0.218	0.390	0.055	1.163	0.273	0.445
		Right Tilted	0.377	0.199	0.261	0.508	0.030	0.407	0.291	0.538
		Left Cheek	0.258	1.083	0.606	1.108	0.284	0.542	0.890	1.392
		Left Tilted	0.179	0.695	0.396	1.002	0.100	0.279	0.496	1.102
LTE Band 41(HPUE)_UAT	Right Cheek	1.077	0.193	0.218	0.390	0.055	1.132	0.273	0.445	
	Right Tilted	0.335	0.199	0.261	0.508	0.030	0.365	0.291	0.538	
	Left Cheek	0.091	1.083	0.606	1.108	0.284	0.375	0.890	1.392	
	Left Tilted	0.689	0.695	0.396	1.002	0.100	0.789	0.496	1.102	
LTE Band 48_UAT	Right Cheek	1.035	0.193	0.218	0.390	0.055	1.090	0.273	0.445	
	Right Tilted	0.252	0.199	0.261	0.508	0.030	0.282	0.291	0.538	
	Left Cheek	0.598	1.083	0.606	1.108	0.284	0.882	0.890	1.392	
	Left Tilted	0.055	0.695	0.396	1.002	0.100	0.155	0.496	1.102	
EN-DC_Ant0	LTE Band 66_Ant0	Right Cheek	0.874	0.193	0.218	0.390	0.055	0.929	0.273	0.445
		Right Tilted	0.979	0.199	0.261	0.508	0.030	1.009	0.291	0.538
		Left Cheek	0.604	1.083	0.606	1.108	0.284	0.888	0.890	1.392
		Left Tilted	0.765	0.695	0.396	1.002	0.100	0.865	0.496	1.102
	LTE Band 7_Ant0	Right Cheek	0.599	0.193	0.218	0.390	0.055	0.654	0.273	0.445
		Right Tilted	0.958	0.199	0.261	0.508	0.030	0.988	0.291	0.538
		Left Cheek	0.578	1.083	0.606	1.108	0.284	0.862	0.890	1.392
		Left Tilted	0.759	0.695	0.396	1.002	0.100	0.859	0.496	1.102



WWAN Band		Exposure Position	1	2	3	4	6	1+2	1+4	1+3+6
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM850_UAT	Right Cheek	1.068	0.119	0.127	0.227	0.055	1.187	1.295	1.250
		Right Tilted	0.590	0.128	0.155	0.307	0.030	0.718	0.897	0.775
		Left Cheek	0.584	0.659	0.370	0.625	0.284	1.243	1.209	1.238
		Left Tilted	0.517	0.424	0.239	0.564	0.100	0.941	1.081	0.856
	GSM1900_UAT	Right Cheek	0.958	0.119	0.127	0.227	0.055	1.077	1.185	1.140
		Right Tilted	0.303	0.128	0.155	0.307	0.030	0.431	0.610	0.488
		Left Cheek	0.296	0.659	0.370	0.625	0.284	0.955	0.921	0.950
		Left Tilted	0.229	0.424	0.239	0.564	0.100	0.653	0.793	0.568
WCDMA	WCDMA V_UAT	Right Cheek	0.886	0.119	0.127	0.227	0.055	1.005	1.113	1.068
		Right Tilted	0.756	0.128	0.155	0.307	0.030	0.884	1.063	0.941
		Left Cheek	0.597	0.659	0.370	0.625	0.284	1.256	1.222	1.251
		Left Tilted	0.546	0.424	0.239	0.564	0.100	0.970	1.110	0.885
	WCDMA IV_UAT	Right Cheek	1.052	0.119	0.127	0.227	0.055	1.171	1.279	1.234
		Right Tilted	0.319	0.128	0.155	0.307	0.030	0.447	0.626	0.504
		Left Cheek	0.314	0.659	0.370	0.625	0.284	0.973	0.939	0.968
		Left Tilted	0.183	0.424	0.239	0.564	0.100	0.607	0.747	0.522
	WCDMA II_UAT	Right Cheek	1.113	0.119	0.127	0.227	0.055	1.232	1.340	1.295
		Right Tilted	0.348	0.128	0.155	0.307	0.030	0.476	0.655	0.533
		Left Cheek	0.337	0.659	0.370	0.625	0.284	0.996	0.962	0.991
		Left Tilted	0.227	0.424	0.239	0.564	0.100	0.651	0.791	0.566
CDMA	CDMA2000 BC10_UAT	Right Cheek	0.906	0.119	0.127	0.227	0.055	1.025	1.133	1.088
		Right Tilted	0.744	0.128	0.155	0.307	0.030	0.872	1.051	0.929
		Left Cheek	0.616	0.659	0.370	0.625	0.284	1.275	1.241	1.270
		Left Tilted	0.571	0.424	0.239	0.564	0.100	0.995	1.135	0.910
	CDMA2000 BC0_UAT	Right Cheek	0.814	0.119	0.127	0.227	0.055	0.933	1.041	0.996
		Right Tilted	0.629	0.128	0.155	0.307	0.030	0.757	0.936	0.814
		Left Cheek	0.554	0.659	0.370	0.625	0.284	1.213	1.179	1.208
		Left Tilted	0.482	0.424	0.239	0.564	0.100	0.906	1.046	0.821
	CDMA2000 BC1_UAT	Right Cheek	1.078	0.119	0.127	0.227	0.055	1.197	1.305	1.260
		Right Tilted	0.231	0.128	0.155	0.307	0.030	0.359	0.538	0.416
		Left Cheek	0.215	0.659	0.370	0.625	0.284	0.874	0.840	0.869
		Left Tilted	0.165	0.424	0.239	0.564	0.100	0.589	0.729	0.504
LTE	LTE Band 71_UAT	Right Cheek	1.039	0.119	0.127	0.227	0.055	1.158	1.266	1.221
		Right Tilted	0.827	0.128	0.155	0.307	0.030	0.955	1.134	1.012
		Left Cheek	0.617	0.659	0.370	0.625	0.284	1.276	1.242	1.271
		Left Tilted	0.593	0.424	0.239	0.564	0.100	1.017	1.157	0.932
	LTE Band 12_UAT	Right Cheek	0.951	0.119	0.127	0.227	0.055	1.070	1.178	1.133
		Right Tilted	0.818	0.128	0.155	0.307	0.030	0.946	1.125	1.003
		Left Cheek	0.615	0.659	0.370	0.625	0.284	1.274	1.240	1.269
		Left Tilted	0.565	0.424	0.239	0.564	0.100	0.989	1.129	0.904
	LTE Band 13_UAT	Right Cheek	0.739	0.119	0.127	0.227	0.055	0.858	0.966	0.921
		Right Tilted	0.501	0.128	0.155	0.307	0.030	0.629	0.808	0.686
		Left Cheek	0.627	0.659	0.370	0.625	0.284	1.286	1.252	1.281
		Left Tilted	0.552	0.424	0.239	0.564	0.100	0.976	1.116	0.891
	LTE Band 5_UAT	Right Cheek	0.768	0.119	0.127	0.227	0.055	0.887	0.995	0.950
		Right Tilted	0.661	0.128	0.155	0.307	0.030	0.789	0.968	0.846
		Left Cheek	0.626	0.659	0.370	0.625	0.284	1.285	1.251	1.280
		Left Tilted	0.586	0.424	0.239	0.564	0.100	1.010	1.150	0.925
	LTE Band 26_UAT	Right Cheek	0.854	0.119	0.127	0.227	0.055	0.973	1.081	1.036
		Right Tilted	0.708	0.128	0.155	0.307	0.030	0.836	1.015	0.893
		Left Cheek	0.632	0.659	0.370	0.625	0.284	1.291	1.257	1.286
		Left Tilted	0.577	0.424	0.239	0.564	0.100	1.001	1.141	0.916



	LTE Band 66_UAT	Right Cheek	1.020	0.119	0.127	0.227	0.055	1.139	1.247	1.202
		Right Tilted	0.326	0.128	0.155	0.307	0.030	0.454	0.633	0.511
		Left Cheek	0.214	0.659	0.370	0.625	0.284	0.873	0.839	0.868
		Left Tilted	0.137	0.424	0.239	0.564	0.100	0.561	0.701	0.476
	LTE Band 25_UAT	Right Cheek	1.118	0.119	0.127	0.227	0.055	1.237	1.345	1.300
		Right Tilted	0.349	0.128	0.155	0.307	0.030	0.477	0.656	0.534
		Left Cheek	0.333	0.659	0.370	0.625	0.284	0.992	0.958	0.987
		Left Tilted	0.231	0.424	0.239	0.564	0.100	0.655	0.795	0.570
	LTE Band 30_UAT	Right Cheek	1.138	0.119	0.127	0.227	0.055	1.257	1.365	1.320
		Right Tilted	0.396	0.128	0.155	0.307	0.030	0.524	0.703	0.581
		Left Cheek	0.302	0.659	0.370	0.625	0.284	0.961	0.927	0.956
		Left Tilted	0.209	0.424	0.239	0.564	0.100	0.633	0.773	0.548
	LTE Band 7_UAT	Right Cheek	1.049	0.119	0.127	0.227	0.055	1.168	1.276	1.231
		Right Tilted	0.384	0.128	0.155	0.307	0.030	0.512	0.691	0.569
		Left Cheek	0.258	0.659	0.370	0.625	0.284	0.917	0.883	0.912
		Left Tilted	0.199	0.424	0.239	0.564	0.100	0.623	0.763	0.538
	LTE Band 41_UAT	Right Cheek	1.108	0.119	0.127	0.227	0.055	1.227	1.335	1.290
		Right Tilted	0.377	0.128	0.155	0.307	0.030	0.505	0.684	0.562
		Left Cheek	0.258	0.659	0.370	0.625	0.284	0.917	0.883	0.912
		Left Tilted	0.179	0.424	0.239	0.564	0.100	0.603	0.743	0.518
LTE Band 41(HPUE)_UAT	Right Cheek	1.077	0.119	0.127	0.227	0.055	1.196	1.304	1.259	
	Right Tilted	0.335	0.128	0.155	0.307	0.030	0.463	0.642	0.520	
	Left Cheek	0.091	0.659	0.370	0.625	0.284	0.750	0.716	0.745	
	Left Tilted	0.689	0.424	0.239	0.564	0.100	1.113	1.253	1.028	
LTE Band 48_UAT	Right Cheek	1.035	0.119	0.127	0.227	0.055	1.154	1.262	1.217	
	Right Tilted	0.252	0.128	0.155	0.307	0.030	0.380	0.559	0.437	
	Left Cheek	0.598	0.659	0.370	0.625	0.284	1.257	1.223	1.252	
	Left Tilted	0.055	0.424	0.239	0.564	0.100	0.479	0.619	0.394	
EN-DC_Ant0	LTE Band 66_Ant0	Right Cheek	0.874	0.119	0.127	0.227	0.055	0.993	1.101	1.056
		Right Tilted	0.979	0.128	0.155	0.307	0.030	1.107	1.286	1.164
		Left Cheek	0.604	0.659	0.370	0.625	0.284	1.263	1.229	1.258
		Left Tilted	0.765	0.424	0.239	0.564	0.100	1.189	1.329	1.104
	LTE Band 7_Ant0	Right Cheek	0.599	0.119	0.127	0.227	0.055	0.718	0.826	0.781
		Right Tilted	0.958	0.128	0.155	0.307	0.030	1.086	1.265	1.143
		Left Cheek	0.578	0.659	0.370	0.625	0.284	1.237	1.203	1.232
		Left Tilted	0.759	0.424	0.239	0.564	0.100	1.183	1.323	1.098





WWAN Band		Exposure Position	1	2	3	4	6	1+4+6	1+2+4	1+3+4+6
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM850_UAT	Right Cheek	1.068	0.073	0.083	0.116	0.055	1.239	1.257	1.322
		Right Tilted	0.590	0.078	0.101	0.125	0.030	0.745	0.793	0.846
		Left Cheek	0.584	0.423	0.226	0.254	0.284	1.122	1.261	1.348
		Left Tilted	0.517	0.272	0.155	0.227	0.100	0.844	1.016	0.999
	GSM1900_UAT	Right Cheek	0.958	0.073	0.083	0.116	0.055	1.129	1.147	1.212
		Right Tilted	0.303	0.078	0.101	0.125	0.030	0.458	0.506	0.559
		Left Cheek	0.296	0.423	0.226	0.254	0.284	0.834	0.973	1.060
		Left Tilted	0.229	0.272	0.155	0.227	0.100	0.556	0.728	0.711
WCDMA	WCDMA V_UAT	Right Cheek	0.886	0.073	0.083	0.116	0.055	1.057	1.075	1.140
		Right Tilted	0.756	0.078	0.101	0.125	0.030	0.911	0.959	1.012
		Left Cheek	0.597	0.423	0.226	0.254	0.284	1.135	1.274	1.361
		Left Tilted	0.546	0.272	0.155	0.227	0.100	0.873	1.045	1.028
	WCDMA IV_UAT	Right Cheek	1.052	0.073	0.083	0.116	0.055	1.223	1.241	1.306
		Right Tilted	0.319	0.078	0.101	0.125	0.030	0.474	0.522	0.575
		Left Cheek	0.314	0.423	0.226	0.254	0.284	0.852	0.991	1.078
		Left Tilted	0.183	0.272	0.155	0.227	0.100	0.510	0.682	0.665
	WCDMA II_UAT	Right Cheek	1.113	0.073	0.083	0.116	0.055	1.284	1.302	1.367
		Right Tilted	0.348	0.078	0.101	0.125	0.030	0.503	0.551	0.604
		Left Cheek	0.337	0.423	0.226	0.254	0.284	0.875	1.014	1.101
		Left Tilted	0.227	0.272	0.155	0.227	0.100	0.554	0.726	0.709
CDMA	CDMA2000 BC10_UAT	Right Cheek	0.906	0.073	0.083	0.116	0.055	1.077	1.095	1.160
		Right Tilted	0.744	0.078	0.101	0.125	0.030	0.899	0.947	1.000
		Left Cheek	0.616	0.423	0.226	0.254	0.284	1.154	1.293	1.380
		Left Tilted	0.571	0.272	0.155	0.227	0.100	0.898	1.070	1.053
	CDMA2000 BC0_UAT	Right Cheek	0.814	0.073	0.083	0.116	0.055	0.985	1.003	1.068
		Right Tilted	0.629	0.078	0.101	0.125	0.030	0.784	0.832	0.885
		Left Cheek	0.554	0.423	0.226	0.254	0.284	1.092	1.231	1.318
		Left Tilted	0.482	0.272	0.155	0.227	0.100	0.809	0.981	0.964
	CDMA2000 BC1_UAT	Right Cheek	1.078	0.073	0.083	0.116	0.055	1.249	1.267	1.332
		Right Tilted	0.231	0.078	0.101	0.125	0.030	0.386	0.434	0.487
		Left Cheek	0.215	0.423	0.226	0.254	0.284	0.753	0.892	0.979
		Left Tilted	0.165	0.272	0.155	0.227	0.100	0.492	0.664	0.647
LTE	LTE Band 71_UAT	Right Cheek	1.039	0.073	0.083	0.116	0.055	1.210	1.228	1.293
		Right Tilted	0.827	0.078	0.101	0.125	0.030	0.982	1.030	1.083
		Left Cheek	0.617	0.423	0.226	0.254	0.284	1.155	1.294	1.381
		Left Tilted	0.593	0.272	0.155	0.227	0.100	0.920	1.092	1.075
	LTE Band 12_UAT	Right Cheek	0.951	0.073	0.083	0.116	0.055	1.122	1.140	1.205
		Right Tilted	0.818	0.078	0.101	0.125	0.030	0.973	1.021	1.074
		Left Cheek	0.615	0.423	0.226	0.254	0.284	1.153	1.292	1.379
		Left Tilted	0.565	0.272	0.155	0.227	0.100	0.892	1.064	1.047
	LTE Band 13_UAT	Right Cheek	0.739	0.073	0.083	0.116	0.055	0.910	0.928	0.993
		Right Tilted	0.501	0.078	0.101	0.125	0.030	0.656	0.704	0.757
		Left Cheek	0.627	0.423	0.226	0.254	0.284	1.165	1.304	1.391
		Left Tilted	0.552	0.272	0.155	0.227	0.100	0.879	1.051	1.034
	LTE Band 5_UAT	Right Cheek	0.768	0.073	0.083	0.116	0.055	0.939	0.957	1.022
		Right Tilted	0.661	0.078	0.101	0.125	0.030	0.816	0.864	0.917
		Left Cheek	0.626	0.423	0.226	0.254	0.284	1.164	1.303	1.390
		Left Tilted	0.586	0.272	0.155	0.227	0.100	0.913	1.085	1.068
	LTE Band 26_UAT	Right Cheek	0.854	0.073	0.083	0.116	0.055	1.025	1.043	1.108
		Right Tilted	0.708	0.078	0.101	0.125	0.030	0.863	0.911	0.964
		Left Cheek	0.632	0.423	0.226	0.254	0.284	1.170	1.309	1.396
		Left Tilted	0.577	0.272	0.155	0.227	0.100	0.904	1.076	1.059



	LTE Band 66_UAT	Right Cheek	1.020	0.073	0.083	0.116	0.055	1.191	1.209	1.274
		Right Tilted	0.326	0.078	0.101	0.125	0.030	0.481	0.529	0.582
		Left Cheek	0.214	0.423	0.226	0.254	0.284	0.752	0.891	0.978
		Left Tilted	0.137	0.272	0.155	0.227	0.100	0.464	0.636	0.619
	LTE Band 25_UAT	Right Cheek	1.118	0.073	0.083	0.116	0.055	1.289	1.307	1.372
		Right Tilted	0.349	0.078	0.101	0.125	0.030	0.504	0.552	0.605
		Left Cheek	0.333	0.423	0.226	0.254	0.284	0.871	1.010	1.097
		Left Tilted	0.231	0.272	0.155	0.227	0.100	0.558	0.730	0.713
	LTE Band 30_UAT	Right Cheek	1.138	0.073	0.083	0.116	0.055	1.309	1.327	1.392
		Right Tilted	0.396	0.078	0.101	0.125	0.030	0.551	0.599	0.652
		Left Cheek	0.302	0.423	0.226	0.254	0.284	0.840	0.979	1.066
		Left Tilted	0.209	0.272	0.155	0.227	0.100	0.536	0.708	0.691
	LTE Band 7_UAT	Right Cheek	1.049	0.073	0.083	0.116	0.055	1.220	1.238	1.303
		Right Tilted	0.384	0.078	0.101	0.125	0.030	0.539	0.587	0.640
		Left Cheek	0.258	0.423	0.226	0.254	0.284	0.796	0.935	1.022
		Left Tilted	0.199	0.272	0.155	0.227	0.100	0.526	0.698	0.681
	LTE Band 41_UAT	Right Cheek	1.108	0.073	0.083	0.116	0.055	1.279	1.297	1.362
		Right Tilted	0.377	0.078	0.101	0.125	0.030	0.532	0.580	0.633
		Left Cheek	0.258	0.423	0.226	0.254	0.284	0.796	0.935	1.022
		Left Tilted	0.179	0.272	0.155	0.227	0.100	0.506	0.678	0.661
	LTE Band 41(HPUE)_UAT	Right Cheek	1.077	0.073	0.083	0.116	0.055	1.248	1.266	1.331
		Right Tilted	0.335	0.078	0.101	0.125	0.030	0.490	0.538	0.591
		Left Cheek	0.091	0.423	0.226	0.254	0.284	0.629	0.768	0.855
		Left Tilted	0.689	0.272	0.155	0.227	0.100	1.016	1.188	1.171
	LTE Band 48_UAT	Right Cheek	1.035	0.073	0.083	0.116	0.055	1.206	1.224	1.289
		Right Tilted	0.252	0.078	0.101	0.125	0.030	0.407	0.455	0.508
		Left Cheek	0.598	0.423	0.226	0.254	0.284	1.136	1.275	1.362
		Left Tilted	0.055	0.272	0.155	0.227	0.100	0.382	0.554	0.537
EN-DC_Ant0	LTE Band 66_Ant0	Right Cheek	0.874	0.073	0.083	0.116	0.055	1.045	1.063	1.128
		Right Tilted	0.979	0.078	0.101	0.125	0.030	1.134	1.182	1.235
		Left Cheek	0.604	0.423	0.226	0.254	0.284	1.142	1.281	1.368
		Left Tilted	0.765	0.272	0.155	0.227	0.100	1.092	1.264	1.247
	LTE Band 7_Ant0	Right Cheek	0.599	0.073	0.083	0.116	0.055	0.770	0.788	0.853
		Right Tilted	0.958	0.078	0.101	0.125	0.030	1.113	1.161	1.214
		Left Cheek	0.578	0.423	0.226	0.254	0.284	1.116	1.255	1.342
		Left Tilted	0.759	0.272	0.155	0.227	0.100	1.086	1.258	1.241



WWAN Band		Exposure Position	1	2	3	4	6	1+6	3+6	4+6
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM850_LAT	Right Cheek	0.223	0.193	0.218	0.390	0.055	0.278	0.273	0.445
		Right Tilted	0.057	0.199	0.261	0.508	0.030	0.087	0.291	0.538
		Left Cheek	0.093	1.083	0.606	1.108	0.284	0.377	0.890	1.392
		Left Tilted	0.084	0.695	0.396	1.002	0.100	0.184	0.496	1.102
	GSM1900_LAT	Right Cheek	0.153	0.193	0.218	0.390	0.055	0.208	0.273	0.445
		Right Tilted	0.055	0.199	0.261	0.508	0.030	0.085	0.291	0.538
		Left Cheek	0.077	1.083	0.606	1.108	0.284	0.361	0.890	1.392
		Left Tilted	0.045	0.695	0.396	1.002	0.100	0.145	0.496	1.102
WCDMA	WCDMA V_LAT	Right Cheek	0.268	0.193	0.218	0.390	0.055	0.323	0.273	0.445
		Right Tilted	0.107	0.199	0.261	0.508	0.030	0.137	0.291	0.538
		Left Cheek	0.179	1.083	0.606	1.108	0.284	0.463	0.890	1.392
		Left Tilted	0.098	0.695	0.396	1.002	0.100	0.198	0.496	1.102
	WCDMA IV_LAT	Right Cheek	0.223	0.193	0.218	0.390	0.055	0.278	0.273	0.445
		Right Tilted	0.142	0.199	0.261	0.508	0.030	0.172	0.291	0.538
		Left Cheek	0.211	1.083	0.606	1.108	0.284	0.495	0.890	1.392
		Left Tilted	0.139	0.695	0.396	1.002	0.100	0.239	0.496	1.102
	WCDMA II_LAT	Right Cheek	0.249	0.193	0.218	0.390	0.055	0.304	0.273	0.445
		Right Tilted	0.145	0.199	0.261	0.508	0.030	0.175	0.291	0.538
		Left Cheek	0.248	1.083	0.606	1.108	0.284	0.532	0.890	1.392
		Left Tilted	0.228	0.695	0.396	1.002	0.100	0.328	0.496	1.102
CDMA	CDMA2000 BC10_LAT	Right Cheek	0.226	0.193	0.218	0.390	0.055	0.281	0.273	0.445
		Right Tilted	0.104	0.199	0.261	0.508	0.030	0.134	0.291	0.538
		Left Cheek	0.162	1.083	0.606	1.108	0.284	0.446	0.890	1.392
		Left Tilted	0.087	0.695	0.396	1.002	0.100	0.187	0.496	1.102
	CDMA2000 BC0_LAT	Right Cheek	0.242	0.193	0.218	0.390	0.055	0.297	0.273	0.445
		Right Tilted	0.102	0.199	0.261	0.508	0.030	0.132	0.291	0.538
		Left Cheek	0.184	1.083	0.606	1.108	0.284	0.468	0.890	1.392
		Left Tilted	0.094	0.695	0.396	1.002	0.100	0.194	0.496	1.102
	CDMA2000 BC1_LAT	Right Cheek	0.374	0.193	0.218	0.390	0.055	0.429	0.273	0.445
		Right Tilted	0.229	0.199	0.261	0.508	0.030	0.259	0.291	0.538
		Left Cheek	0.263	1.083	0.606	1.108	0.284	0.547	0.890	1.392
		Left Tilted	0.160	0.695	0.396	1.002	0.100	0.260	0.496	1.102
LTE	LTE Band 71_LAT	Right Cheek	0.166	0.193	0.218	0.390	0.055	0.221	0.273	0.445
		Right Tilted	0.061	0.199	0.261	0.508	0.030	0.091	0.291	0.538
		Left Cheek	0.113	1.083	0.606	1.108	0.284	0.397	0.890	1.392
		Left Tilted	0.075	0.695	0.396	1.002	0.100	0.175	0.496	1.102
	LTE Band 12_LAT	Right Cheek	0.199	0.193	0.218	0.390	0.055	0.254	0.273	0.445
		Right Tilted	0.077	0.199	0.261	0.508	0.030	0.107	0.291	0.538
		Left Cheek	0.144	1.083	0.606	1.108	0.284	0.428	0.890	1.392
		Left Tilted	0.066	0.695	0.396	1.002	0.100	0.166	0.496	1.102
	LTE Band 13_LAT	Right Cheek	0.223	0.193	0.218	0.390	0.055	0.278	0.273	0.445
		Right Tilted	0.092	0.199	0.261	0.508	0.030	0.122	0.291	0.538
		Left Cheek	0.139	1.083	0.606	1.108	0.284	0.423	0.890	1.392
		Left Tilted	0.073	0.695	0.396	1.002	0.100	0.173	0.496	1.102
	LTE Band 5_LAT	Right Cheek	0.311	0.193	0.218	0.390	0.055	0.366	0.273	0.445
		Right Tilted	0.128	0.199	0.261	0.508	0.030	0.158	0.291	0.538
		Left Cheek	0.231	1.083	0.606	1.108	0.284	0.515	0.890	1.392
		Left Tilted	0.113	0.695	0.396	1.002	0.100	0.213	0.496	1.102
	LTE Band 26_LAT	Right Cheek	0.265	0.193	0.218	0.390	0.055	0.320	0.273	0.445
		Right Tilted	0.096	0.199	0.261	0.508	0.030	0.126	0.291	0.538
		Left Cheek	0.192	1.083	0.606	1.108	0.284	0.476	0.890	1.392
		Left Tilted	0.081	0.695	0.396	1.002	0.100	0.181	0.496	1.102



	LTE Band 66_LAT	Right Cheek	0.220	0.193	0.218	0.390	0.055	0.275	0.273	0.445
		Right Tilted	0.141	0.199	0.261	0.508	0.030	0.171	0.291	0.538
		Left Cheek	0.219	1.083	0.606	1.108	0.284	0.503	0.890	1.392
		Left Tilted	0.139	0.695	0.396	1.002	0.100	0.239	0.496	1.102
	LTE Band 25_LAT	Right Cheek	0.265	0.193	0.218	0.390	0.055	0.320	0.273	0.445
		Right Tilted	0.126	0.199	0.261	0.508	0.030	0.156	0.291	0.538
		Left Cheek	0.206	1.083	0.606	1.108	0.284	0.490	0.890	1.392
		Left Tilted	0.173	0.695	0.396	1.002	0.100	0.273	0.496	1.102
	LTE Band 30_LAT	Right Cheek	0.309	0.193	0.218	0.390	0.055	0.364	0.273	0.445
		Right Tilted	0.183	0.199	0.261	0.508	0.030	0.213	0.291	0.538
		Left Cheek	0.322	1.083	0.606	1.108	0.284	0.606	0.890	1.392
		Left Tilted	0.155	0.695	0.396	1.002	0.100	0.255	0.496	1.102
	LTE Band 7_LAT	Right Cheek	0.307	0.193	0.218	0.390	0.055	0.362	0.273	0.445
		Right Tilted	0.193	0.199	0.261	0.508	0.030	0.223	0.291	0.538
		Left Cheek	0.426	1.083	0.606	1.108	0.284	0.710	0.890	1.392
		Left Tilted	0.138	0.695	0.396	1.002	0.100	0.238	0.496	1.102
	LTE Band 41_LAT	Right Cheek	0.140	0.193	0.218	0.390	0.055	0.195	0.273	0.445
		Right Tilted	0.101	0.199	0.261	0.508	0.030	0.131	0.291	0.538
		Left Cheek	0.238	1.083	0.606	1.108	0.284	0.522	0.890	1.392
		Left Tilted	0.075	0.695	0.396	1.002	0.100	0.175	0.496	1.102
LTE Band 41(HPUE)_LAT	Right Cheek	0.159	0.193	0.218	0.390	0.055	0.214	0.273	0.445	
	Right Tilted	0.094	0.199	0.261	0.508	0.030	0.124	0.291	0.538	
	Left Cheek	0.263	1.083	0.606	1.108	0.284	0.547	0.890	1.392	
	Left Tilted	0.064	0.695	0.396	1.002	0.100	0.164	0.496	1.102	
EN-DC_Ant1	LTE Band 66_Ant1	Right Cheek	0.131	0.193	0.218	0.390	0.055	0.186	0.273	0.445
		Right Tilted	0.067	0.199	0.261	0.508	0.030	0.097	0.291	0.538
		Left Cheek	0.084	1.083	0.606	1.108	0.284	0.368	0.890	1.392
		Left Tilted	0.065	0.695	0.396	1.002	0.100	0.165	0.496	1.102
	LTE Band 7_Ant1	Right Cheek	0.234	0.193	0.218	0.390	0.055	0.289	0.273	0.445
		Right Tilted	0.074	0.199	0.261	0.508	0.030	0.104	0.291	0.538
		Left Cheek	0.093	1.083	0.606	1.108	0.284	0.377	0.890	1.392
		Left Tilted	0.081	0.695	0.396	1.002	0.100	0.181	0.496	1.102



**FCC SAR TEST REPORT**

Report No. : FA002801-07

WWAN Band		Exposure Position	1	2	3	4	6	1+2	1+4	1+3+6
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM850_LAT	Right Cheek	0.223	0.119	0.127	0.227	0.055	0.342	0.450	0.405
		Right Tilted	0.057	0.128	0.155	0.307	0.030	0.185	0.364	0.242
		Left Cheek	0.093	0.659	0.370	0.625	0.284	0.752	0.718	0.747
		Left Tilted	0.084	0.424	0.239	0.564	0.100	0.508	0.648	0.423
	GSM1900_LAT	Right Cheek	0.153	0.119	0.127	0.227	0.055	0.272	0.380	0.335
		Right Tilted	0.055	0.128	0.155	0.307	0.030	0.183	0.362	0.240
		Left Cheek	0.077	0.659	0.370	0.625	0.284	0.736	0.702	0.731
		Left Tilted	0.045	0.424	0.239	0.564	0.100	0.469	0.609	0.384
WCDMA	WCDMA V_LAT	Right Cheek	0.268	0.119	0.127	0.227	0.055	0.387	0.495	0.450
		Right Tilted	0.107	0.128	0.155	0.307	0.030	0.235	0.414	0.292
		Left Cheek	0.179	0.659	0.370	0.625	0.284	0.838	0.804	0.833
		Left Tilted	0.098	0.424	0.239	0.564	0.100	0.522	0.662	0.437
	WCDMA IV_LAT	Right Cheek	0.223	0.119	0.127	0.227	0.055	0.342	0.450	0.405
		Right Tilted	0.142	0.128	0.155	0.307	0.030	0.270	0.449	0.327
		Left Cheek	0.211	0.659	0.370	0.625	0.284	0.870	0.836	0.865
		Left Tilted	0.139	0.424	0.239	0.564	0.100	0.563	0.703	0.478
	WCDMA II_LAT	Right Cheek	0.249	0.119	0.127	0.227	0.055	0.368	0.476	0.431
		Right Tilted	0.145	0.128	0.155	0.307	0.030	0.273	0.452	0.330
		Left Cheek	0.248	0.659	0.370	0.625	0.284	0.907	0.873	0.902
		Left Tilted	0.228	0.424	0.239	0.564	0.100	0.652	0.792	0.567
CDMA	CDMA2000 BC10_LAT	Right Cheek	0.226	0.119	0.127	0.227	0.055	0.345	0.453	0.408
		Right Tilted	0.104	0.128	0.155	0.307	0.030	0.232	0.411	0.289
		Left Cheek	0.162	0.659	0.370	0.625	0.284	0.821	0.787	0.816
		Left Tilted	0.087	0.424	0.239	0.564	0.100	0.511	0.651	0.426
	CDMA2000 BC0_LAT	Right Cheek	0.242	0.119	0.127	0.227	0.055	0.361	0.469	0.424
		Right Tilted	0.102	0.128	0.155	0.307	0.030	0.230	0.409	0.287
		Left Cheek	0.184	0.659	0.370	0.625	0.284	0.843	0.809	0.838
		Left Tilted	0.094	0.424	0.239	0.564	0.100	0.518	0.658	0.433
	CDMA2000 BC1_LAT	Right Cheek	0.374	0.119	0.127	0.227	0.055	0.493	0.601	0.556
		Right Tilted	0.229	0.128	0.155	0.307	0.030	0.357	0.536	0.414
		Left Cheek	0.263	0.659	0.370	0.625	0.284	0.922	0.888	0.917
		Left Tilted	0.160	0.424	0.239	0.564	0.100	0.584	0.724	0.499
LTE	LTE Band 71_LAT	Right Cheek	0.166	0.119	0.127	0.227	0.055	0.285	0.393	0.348
		Right Tilted	0.061	0.128	0.155	0.307	0.030	0.189	0.368	0.246
		Left Cheek	0.113	0.659	0.370	0.625	0.284	0.772	0.738	0.767
		Left Tilted	0.075	0.424	0.239	0.564	0.100	0.499	0.639	0.414
	LTE Band 12_LAT	Right Cheek	0.199	0.119	0.127	0.227	0.055	0.318	0.426	0.381
		Right Tilted	0.077	0.128	0.155	0.307	0.030	0.205	0.384	0.262
		Left Cheek	0.144	0.659	0.370	0.625	0.284	0.803	0.769	0.798
		Left Tilted	0.066	0.424	0.239	0.564	0.100	0.490	0.630	0.405
	LTE Band 13_LAT	Right Cheek	0.223	0.119	0.127	0.227	0.055	0.342	0.450	0.405
		Right Tilted	0.092	0.128	0.155	0.307	0.030	0.220	0.399	0.277
		Left Cheek	0.139	0.659	0.370	0.625	0.284	0.798	0.764	0.793
		Left Tilted	0.073	0.424	0.239	0.564	0.100	0.497	0.637	0.412
	LTE Band 5_LAT	Right Cheek	0.311	0.119	0.127	0.227	0.055	0.430	0.538	0.493
		Right Tilted	0.128	0.128	0.155	0.307	0.030	0.256	0.435	0.313
		Left Cheek	0.231	0.659	0.370	0.625	0.284	0.890	0.856	0.885
		Left Tilted	0.113	0.424	0.239	0.564	0.100	0.537	0.677	0.452
	LTE Band 26_LAT	Right Cheek	0.265	0.119	0.127	0.227	0.055	0.384	0.492	0.447
		Right Tilted	0.096	0.128	0.155	0.307	0.030	0.224	0.403	0.281
		Left Cheek	0.192	0.659	0.370	0.625	0.284	0.851	0.817	0.846
		Left Tilted	0.081	0.424	0.239	0.564	0.100	0.505	0.645	0.420



	LTE Band 66_LAT	Right Cheek	0.220	0.119	0.127	0.227	0.055	0.339	0.447	0.402
		Right Tilted	0.141	0.128	0.155	0.307	0.030	0.269	0.448	0.326
		Left Cheek	0.219	0.659	0.370	0.625	0.284	0.878	0.844	0.873
		Left Tilted	0.139	0.424	0.239	0.564	0.100	0.563	0.703	0.478
	LTE Band 25_LAT	Right Cheek	0.265	0.119	0.127	0.227	0.055	0.384	0.492	0.447
		Right Tilted	0.126	0.128	0.155	0.307	0.030	0.254	0.433	0.311
		Left Cheek	0.206	0.659	0.370	0.625	0.284	0.865	0.831	0.860
		Left Tilted	0.173	0.424	0.239	0.564	0.100	0.597	0.737	0.512
	LTE Band 30_LAT	Right Cheek	0.309	0.119	0.127	0.227	0.055	0.428	0.536	0.491
		Right Tilted	0.183	0.128	0.155	0.307	0.030	0.311	0.490	0.368
		Left Cheek	0.322	0.659	0.370	0.625	0.284	0.981	0.947	0.976
		Left Tilted	0.155	0.424	0.239	0.564	0.100	0.579	0.719	0.494
	LTE Band 7_LAT	Right Cheek	0.307	0.119	0.127	0.227	0.055	0.426	0.534	0.489
		Right Tilted	0.193	0.128	0.155	0.307	0.030	0.321	0.500	0.378
		Left Cheek	0.426	0.659	0.370	0.625	0.284	1.085	1.051	1.080
		Left Tilted	0.138	0.424	0.239	0.564	0.100	0.562	0.702	0.477
	LTE Band 41_LAT	Right Cheek	0.140	0.119	0.127	0.227	0.055	0.259	0.367	0.322
		Right Tilted	0.101	0.128	0.155	0.307	0.030	0.229	0.408	0.286
		Left Cheek	0.238	0.659	0.370	0.625	0.284	0.897	0.863	0.892
		Left Tilted	0.075	0.424	0.239	0.564	0.100	0.499	0.639	0.414
LTE Band 41(HPUE)_LAT	Right Cheek	0.159	0.119	0.127	0.227	0.055	0.278	0.386	0.341	
	Right Tilted	0.094	0.128	0.155	0.307	0.030	0.222	0.401	0.279	
	Left Cheek	0.263	0.659	0.370	0.625	0.284	0.922	0.888	0.917	
	Left Tilted	0.064	0.424	0.239	0.564	0.100	0.488	0.628	0.403	
EN-DC_Ant1	LTE Band 66_Ant1	Right Cheek	0.131	0.119	0.127	0.227	0.055	0.250	0.358	0.313
		Right Tilted	0.067	0.128	0.155	0.307	0.030	0.195	0.374	0.252
		Left Cheek	0.084	0.659	0.370	0.625	0.284	0.743	0.709	0.738
		Left Tilted	0.065	0.424	0.239	0.564	0.100	0.489	0.629	0.404
	LTE Band 7_Ant1	Right Cheek	0.234	0.119	0.127	0.227	0.055	0.353	0.461	0.416
		Right Tilted	0.074	0.128	0.155	0.307	0.030	0.202	0.381	0.259
		Left Cheek	0.093	0.659	0.370	0.625	0.284	0.752	0.718	0.747
		Left Tilted	0.081	0.424	0.239	0.564	0.100	0.505	0.645	0.420



WWAN Band		Exposure Position	1	2	3	4	6	1+4+6	1+2+4	1+3+4+6
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
GSM	GSM850_LAT	Right Cheek	0.223	0.073	0.083	0.116	0.055	0.394	0.412	0.477
		Right Tilted	0.057	0.078	0.101	0.125	0.030	0.212	0.260	0.313
		Left Cheek	0.093	0.423	0.226	0.254	0.284	0.631	0.770	0.857
		Left Tilted	0.084	0.272	0.155	0.227	0.100	0.411	0.583	0.566
	GSM1900_LAT	Right Cheek	0.153	0.073	0.083	0.116	0.055	0.324	0.342	0.407
		Right Tilted	0.055	0.078	0.101	0.125	0.030	0.210	0.258	0.311
		Left Cheek	0.077	0.423	0.226	0.254	0.284	0.615	0.754	0.841
		Left Tilted	0.045	0.272	0.155	0.227	0.100	0.372	0.544	0.527
WCDMA	WCDMA V_LAT	Right Cheek	0.268	0.073	0.083	0.116	0.055	0.439	0.457	0.522
		Right Tilted	0.107	0.078	0.101	0.125	0.030	0.262	0.310	0.363
		Left Cheek	0.179	0.423	0.226	0.254	0.284	0.717	0.856	0.943
		Left Tilted	0.098	0.272	0.155	0.227	0.100	0.425	0.597	0.580
	WCDMA IV_LAT	Right Cheek	0.223	0.073	0.083	0.116	0.055	0.394	0.412	0.477
		Right Tilted	0.142	0.078	0.101	0.125	0.030	0.297	0.345	0.398
		Left Cheek	0.211	0.423	0.226	0.254	0.284	0.749	0.888	0.975
		Left Tilted	0.139	0.272	0.155	0.227	0.100	0.466	0.638	0.621
	WCDMA II_LAT	Right Cheek	0.249	0.073	0.083	0.116	0.055	0.420	0.438	0.503
		Right Tilted	0.145	0.078	0.101	0.125	0.030	0.300	0.348	0.401
		Left Cheek	0.248	0.423	0.226	0.254	0.284	0.786	0.925	1.012
		Left Tilted	0.228	0.272	0.155	0.227	0.100	0.555	0.727	0.710
CDMA	CDMA2000 BC10_LAT	Right Cheek	0.226	0.073	0.083	0.116	0.055	0.397	0.415	0.480
		Right Tilted	0.104	0.078	0.101	0.125	0.030	0.259	0.307	0.360
		Left Cheek	0.162	0.423	0.226	0.254	0.284	0.700	0.839	0.926
		Left Tilted	0.087	0.272	0.155	0.227	0.100	0.414	0.586	0.569
	CDMA2000 BC0_LAT	Right Cheek	0.242	0.073	0.083	0.116	0.055	0.413	0.431	0.496
		Right Tilted	0.102	0.078	0.101	0.125	0.030	0.257	0.305	0.358
		Left Cheek	0.184	0.423	0.226	0.254	0.284	0.722	0.861	0.948
		Left Tilted	0.094	0.272	0.155	0.227	0.100	0.421	0.593	0.576
	CDMA2000 BC1_LAT	Right Cheek	0.374	0.073	0.083	0.116	0.055	0.545	0.563	0.628
		Right Tilted	0.229	0.078	0.101	0.125	0.030	0.384	0.432	0.485
		Left Cheek	0.263	0.423	0.226	0.254	0.284	0.801	0.940	1.027
		Left Tilted	0.160	0.272	0.155	0.227	0.100	0.487	0.659	0.642
LTE	LTE Band 71_LAT	Right Cheek	0.166	0.073	0.083	0.116	0.055	0.337	0.355	0.420
		Right Tilted	0.061	0.078	0.101	0.125	0.030	0.216	0.264	0.317
		Left Cheek	0.113	0.423	0.226	0.254	0.284	0.651	0.790	0.877
		Left Tilted	0.075	0.272	0.155	0.227	0.100	0.402	0.574	0.557
	LTE Band 12_LAT	Right Cheek	0.199	0.073	0.083	0.116	0.055	0.370	0.388	0.453
		Right Tilted	0.077	0.078	0.101	0.125	0.030	0.232	0.280	0.333
		Left Cheek	0.144	0.423	0.226	0.254	0.284	0.682	0.821	0.908
		Left Tilted	0.066	0.272	0.155	0.227	0.100	0.393	0.565	0.548
	LTE Band 13_LAT	Right Cheek	0.223	0.073	0.083	0.116	0.055	0.394	0.412	0.477
		Right Tilted	0.092	0.078	0.101	0.125	0.030	0.247	0.295	0.348
		Left Cheek	0.139	0.423	0.226	0.254	0.284	0.677	0.816	0.903
		Left Tilted	0.073	0.272	0.155	0.227	0.100	0.400	0.572	0.555
	LTE Band 5_LAT	Right Cheek	0.311	0.073	0.083	0.116	0.055	0.482	0.500	0.565
		Right Tilted	0.128	0.078	0.101	0.125	0.030	0.283	0.331	0.384
		Left Cheek	0.231	0.423	0.226	0.254	0.284	0.769	0.908	0.995
		Left Tilted	0.113	0.272	0.155	0.227	0.100	0.440	0.612	0.595
	LTE Band 26_LAT	Right Cheek	0.265	0.073	0.083	0.116	0.055	0.436	0.454	0.519
		Right Tilted	0.096	0.078	0.101	0.125	0.030	0.251	0.299	0.352
		Left Cheek	0.192	0.423	0.226	0.254	0.284	0.730	0.869	0.956
		Left Tilted	0.081	0.272	0.155	0.227	0.100	0.408	0.580	0.563



	LTE Band 66_LAT	Right Cheek	0.220	0.073	0.083	0.116	0.055	0.391	0.409	0.474
		Right Tilted	0.141	0.078	0.101	0.125	0.030	0.296	0.344	0.397
		Left Cheek	0.219	0.423	0.226	0.254	0.284	0.757	0.896	0.983
		Left Tilted	0.139	0.272	0.155	0.227	0.100	0.466	0.638	0.621
	LTE Band 25_LAT	Right Cheek	0.265	0.073	0.083	0.116	0.055	0.436	0.454	0.519
		Right Tilted	0.126	0.078	0.101	0.125	0.030	0.281	0.329	0.382
		Left Cheek	0.206	0.423	0.226	0.254	0.284	0.744	0.883	0.970
		Left Tilted	0.173	0.272	0.155	0.227	0.100	0.500	0.672	0.655
	LTE Band 30_LAT	Right Cheek	0.309	0.073	0.083	0.116	0.055	0.480	0.498	0.563
		Right Tilted	0.183	0.078	0.101	0.125	0.030	0.338	0.386	0.439
		Left Cheek	0.322	0.423	0.226	0.254	0.284	0.860	0.999	1.086
		Left Tilted	0.155	0.272	0.155	0.227	0.100	0.482	0.654	0.637
	LTE Band 7_LAT	Right Cheek	0.307	0.073	0.083	0.116	0.055	0.478	0.496	0.561
		Right Tilted	0.193	0.078	0.101	0.125	0.030	0.348	0.396	0.449
		Left Cheek	0.426	0.423	0.226	0.254	0.284	0.964	1.103	1.190
		Left Tilted	0.138	0.272	0.155	0.227	0.100	0.465	0.637	0.620
	LTE Band 41_LAT	Right Cheek	0.140	0.073	0.083	0.116	0.055	0.311	0.329	0.394
		Right Tilted	0.101	0.078	0.101	0.125	0.030	0.256	0.304	0.357
		Left Cheek	0.238	0.423	0.226	0.254	0.284	0.776	0.915	1.002
		Left Tilted	0.075	0.272	0.155	0.227	0.100	0.402	0.574	0.557
LTE Band 41(HPUE)_LAT	Right Cheek	0.159	0.073	0.083	0.116	0.055	0.330	0.348	0.413	
	Right Tilted	0.094	0.078	0.101	0.125	0.030	0.249	0.297	0.350	
	Left Cheek	0.263	0.423	0.226	0.254	0.284	0.801	0.940	1.027	
	Left Tilted	0.064	0.272	0.155	0.227	0.100	0.391	0.563	0.546	
EN-DC_Ant1	LTE Band 66_Ant1	Right Cheek	0.131	0.073	0.083	0.116	0.055	0.302	0.320	0.385
		Right Tilted	0.067	0.078	0.101	0.125	0.030	0.222	0.270	0.323
		Left Cheek	0.084	0.423	0.226	0.254	0.284	0.622	0.761	0.848
		Left Tilted	0.065	0.272	0.155	0.227	0.100	0.392	0.564	0.547
	LTE Band 7_Ant1	Right Cheek	0.234	0.073	0.083	0.116	0.055	0.405	0.423	0.488
		Right Tilted	0.074	0.078	0.101	0.125	0.030	0.229	0.277	0.330
		Left Cheek	0.093	0.423	0.226	0.254	0.284	0.631	0.770	0.857
		Left Tilted	0.081	0.272	0.155	0.227	0.100	0.408	0.580	0.563





WWAN Band		Exposure Position	1	2	3	4	6	1+6	3+6	4+6	
			NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
UAT	N71_Ant0	Right Cheek	0.694	0.193	0.218	0.390	0.055	0.749	0.273	0.445	
		Right Tilted	0.609	0.199	0.261	0.508	0.030	0.639	0.291	0.538	
		Left Cheek	0.496	1.083	0.606	1.108	0.284	0.780	0.890	1.392	
		Left Tilted	0.461	0.695	0.396	1.002	0.100	0.561	0.496	1.102	
	N5_Ant0	Right Cheek	0.778	0.193	0.218	0.390	0.055	0.833	0.273	0.445	
		Right Tilted	0.625	0.199	0.261	0.508	0.030	0.655	0.291	0.538	
		Left Cheek	0.592	1.083	0.606	1.108	0.284	0.876	0.890	1.392	
		Left Tilted	0.581	0.695	0.396	1.002	0.100	0.681	0.496	1.102	
	N66_Ant2	Right Cheek	1.083	0.193	0.218	0.390	0.055	1.138	0.273	0.445	
		Right Tilted	0.340	0.199	0.261	0.508	0.030	0.370	0.291	0.538	
		Left Cheek	0.314	1.083	0.606	1.108	0.284	0.598	0.890	1.392	
		Left Tilted	0.214	0.695	0.396	1.002	0.100	0.314	0.496	1.102	
	N25_Ant2	Right Cheek	1.136	0.193	0.218	0.390	0.055	1.191	0.273	0.445	
		Right Tilted	0.332	0.199	0.261	0.508	0.030	0.362	0.291	0.538	
		Left Cheek	0.314	1.083	0.606	1.108	0.284	0.598	0.890	1.392	
		Left Tilted	0.245	0.695	0.396	1.002	0.100	0.345	0.496	1.102	
	N7_Ant2	Right Cheek	1.145	0.193	0.218	0.390	0.055	1.200	0.273	0.445	
		Right Tilted	0.375	0.199	0.261	0.508	0.030	0.405	0.291	0.538	
		Left Cheek	0.234	1.083	0.606	1.108	0.284	0.518	0.890	1.392	
		Left Tilted	0.186	0.695	0.396	1.002	0.100	0.286	0.496	1.102	
	N41_Ant2	Right Cheek	0.949	0.193	0.218	0.390	0.055	1.004	0.273	0.445	
		Right Tilted	0.380	0.199	0.261	0.508	0.030	0.410	0.291	0.538	
		Left Cheek	0.229	1.083	0.606	1.108	0.284	0.513	0.890	1.392	
		Left Tilted	0.167	0.695	0.396	1.002	0.100	0.267	0.496	1.102	
	N41(HPUE)_Ant2	Right Cheek	1.142	0.193	0.218	0.390	0.055	1.197	0.273	0.445	
		Right Tilted	0.381	0.199	0.261	0.508	0.030	0.411	0.291	0.538	
		Left Cheek	0.240	1.083	0.606	1.108	0.284	0.524	0.890	1.392	
		Left Tilted	0.161	0.695	0.396	1.002	0.100	0.261	0.496	1.102	
	N77_Ant7	Right Cheek	1.176	0.193	0.218	0.390	0.055	1.231	0.273	0.445	
		Right Tilted	0.227	0.199	0.261	0.508	0.030	0.257	0.291	0.538	
		Left Cheek	0.695	1.083	0.606	1.108	0.284	0.979	0.890	1.392	
		Left Tilted	0.133	0.695	0.396	1.002	0.100	0.233	0.496	1.102	
	LAT	N71_Ant1	Right Cheek	0.102	0.193	0.218	0.390	0.055	0.157	0.273	0.445
			Right Tilted	0.040	0.199	0.261	0.508	0.030	0.070	0.291	0.538
			Left Cheek	0.064	1.083	0.606	1.108	0.284	0.348	0.890	1.392
			Left Tilted	0.032	0.695	0.396	1.002	0.100	0.132	0.496	1.102
N5_Ant1		Right Cheek	0.171	0.193	0.218	0.390	0.055	0.226	0.273	0.445	
		Right Tilted	0.071	0.199	0.261	0.508	0.030	0.101	0.291	0.538	
		Left Cheek	0.128	1.083	0.606	1.108	0.284	0.412	0.890	1.392	
		Left Tilted	0.059	0.695	0.396	1.002	0.100	0.159	0.496	1.102	
N66_Ant3		Right Cheek	0.156	0.193	0.218	0.390	0.055	0.211	0.273	0.445	
		Right Tilted	0.091	0.199	0.261	0.508	0.030	0.121	0.291	0.538	
		Left Cheek	0.134	1.083	0.606	1.108	0.284	0.418	0.890	1.392	
		Left Tilted	0.102	0.695	0.396	1.002	0.100	0.202	0.496	1.102	
N25_Ant3		Right Cheek	0.297	0.193	0.218	0.390	0.055	0.352	0.273	0.445	
		Right Tilted	0.173	0.199	0.261	0.508	0.030	0.203	0.291	0.538	
		Left Cheek	0.220	1.083	0.606	1.108	0.284	0.504	0.890	1.392	
		Left Tilted	0.198	0.695	0.396	1.002	0.100	0.298	0.496	1.102	
N7_Ant3		Right Cheek	0.278	0.193	0.218	0.390	0.055	0.333	0.273	0.445	
		Right Tilted	0.207	0.199	0.261	0.508	0.030	0.237	0.291	0.538	
		Left Cheek	0.384	1.083	0.606	1.108	0.284	0.668	0.890	1.392	
		Left Tilted	0.143	0.695	0.396	1.002	0.100	0.243	0.496	1.102	



	N41_Ant3	Right Cheek	0.281	0.193	0.218	0.390	0.055	0.336	0.273	0.445
		Right Tilted	0.172	0.199	0.261	0.508	0.030	0.202	0.291	0.538
		Left Cheek	0.414	1.083	0.606	1.108	0.284	0.698	0.890	1.392
		Left Tilted	0.141	0.695	0.396	1.002	0.100	0.241	0.496	1.102
	N41(HPUE)_Ant3	Right Cheek	0.379	0.193	0.218	0.390	0.055	0.434	0.273	0.445
		Right Tilted	0.239	0.199	0.261	0.508	0.030	0.269	0.291	0.538
		Left Cheek	0.558	1.083	0.606	1.108	0.284	0.842	0.890	1.392
		Left Tilted	0.213	0.695	0.396	1.002	0.100	0.313	0.496	1.102
EN-DC_Ant0	N66_Ant0	Right Cheek	0.739	0.193	0.218	0.390	0.055	0.794	0.273	0.445
		Right Tilted	1.077	0.199	0.261	0.508	0.030	1.107	0.291	0.538
		Left Cheek	0.595	1.083	0.606	1.108	0.284	0.879	0.890	1.392
		Left Tilted	0.774	0.695	0.396	1.002	0.100	0.874	0.496	1.102
	N41_Ant0	Right Cheek	0.709	0.193	0.218	0.390	0.055	0.764	0.273	0.445
		Right Tilted	1.039	0.199	0.261	0.508	0.030	1.069	0.291	0.538
		Left Cheek	0.622	1.083	0.606	1.108	0.284	0.906	0.890	1.392
		Left Tilted	0.830	0.695	0.396	1.002	0.100	0.930	0.496	1.102
	N41(HPUE)_Ant0	Right Cheek	0.709	0.193	0.218	0.390	0.055	0.764	0.273	0.445
		Right Tilted	1.039	0.199	0.261	0.508	0.030	1.069	0.291	0.538
		Left Cheek	0.622	1.083	0.606	1.108	0.284	0.906	0.890	1.392
		Left Tilted	0.830	0.695	0.396	1.002	0.100	0.930	0.496	1.102
EN-DC_Ant0	N66_Ant1	Right Cheek	0.076	0.193	0.218	0.390	0.055	0.131	0.273	0.445
		Right Tilted		0.199	0.261	0.508	0.030	0.030	0.291	0.538
		Left Cheek		1.083	0.606	1.108	0.284	0.284	0.890	1.392
		Left Tilted		0.695	0.396	1.002	0.100	0.100	0.496	1.102
	N41_Ant1	Right Cheek	0.209	0.193	0.218	0.390	0.055	0.264	0.273	0.445
		Right Tilted	0.054	0.199	0.261	0.508	0.030	0.084	0.291	0.538
		Left Cheek	0.099	1.083	0.606	1.108	0.284	0.383	0.890	1.392
		Left Tilted	0.082	0.695	0.396	1.002	0.100	0.182	0.496	1.102
	N41(HPUE)_Ant1	Right Cheek	0.309	0.193	0.218	0.390	0.055	0.364	0.273	0.445
		Right Tilted	0.081	0.199	0.261	0.508	0.030	0.111	0.291	0.538
		Left Cheek	0.148	1.083	0.606	1.108	0.284	0.432	0.890	1.392
		Left Tilted	0.128	0.695	0.396	1.002	0.100	0.228	0.496	1.102



WWAN Band		Exposure Position	1	2	3	4	6	1+2	1+4	1+3+6	
			NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed	
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
UAT	N71_Ant0	Right Cheek	0.694	0.119	0.127	0.227	0.055	0.813	0.921	0.876	
		Right Tilted	0.609	0.128	0.155	0.307	0.030	0.737	0.916	0.794	
		Left Cheek	0.496	0.659	0.370	0.625	0.284	1.155	1.121	1.150	
		Left Tilted	0.461	0.424	0.239	0.564	0.100	0.885	1.025	0.800	
	N5_Ant0	Right Cheek	0.778	0.119	0.127	0.227	0.055	0.897	1.005	0.960	
		Right Tilted	0.625	0.128	0.155	0.307	0.030	0.753	0.932	0.810	
		Left Cheek	0.592	0.659	0.370	0.625	0.284	1.251	1.217	1.246	
		Left Tilted	0.581	0.424	0.239	0.564	0.100	1.005	1.145	0.920	
	N66_Ant2	Right Cheek	1.083	0.119	0.127	0.227	0.055	1.202	1.310	1.265	
		Right Tilted	0.340	0.128	0.155	0.307	0.030	0.468	0.647	0.525	
		Left Cheek	0.314	0.659	0.370	0.625	0.284	0.973	0.939	0.968	
		Left Tilted	0.214	0.424	0.239	0.564	0.100	0.638	0.778	0.553	
	N25_Ant2	Right Cheek	1.136	0.119	0.127	0.227	0.055	1.255	1.363	1.318	
		Right Tilted	0.332	0.128	0.155	0.307	0.030	0.460	0.639	0.517	
		Left Cheek	0.314	0.659	0.370	0.625	0.284	0.973	0.939	0.968	
		Left Tilted	0.245	0.424	0.239	0.564	0.100	0.669	0.809	0.584	
	N7_Ant2	Right Cheek	1.145	0.119	0.127	0.227	0.055	1.264	1.372	1.327	
		Right Tilted	0.375	0.128	0.155	0.307	0.030	0.503	0.682	0.560	
		Left Cheek	0.234	0.659	0.370	0.625	0.284	0.893	0.859	0.888	
		Left Tilted	0.186	0.424	0.239	0.564	0.100	0.610	0.750	0.525	
	N41_Ant2	Right Cheek	0.949	0.119	0.127	0.227	0.055	1.068	1.176	1.131	
		Right Tilted	0.380	0.128	0.155	0.307	0.030	0.508	0.687	0.565	
		Left Cheek	0.229	0.659	0.370	0.625	0.284	0.888	0.854	0.883	
		Left Tilted	0.167	0.424	0.239	0.564	0.100	0.591	0.731	0.506	
	N41(HPUE)_Ant2	Right Cheek	1.142	0.119	0.127	0.227	0.055	1.261	1.369	1.324	
		Right Tilted	0.381	0.128	0.155	0.307	0.030	0.509	0.688	0.566	
		Left Cheek	0.240	0.659	0.370	0.625	0.284	0.899	0.865	0.894	
		Left Tilted	0.161	0.424	0.239	0.564	0.100	0.585	0.725	0.500	
	N77_Ant7	Right Cheek	0.837	0.119	0.127	0.227	0.055	0.956	1.064	1.019	
		Right Tilted	0.163	0.128	0.155	0.307	0.030	0.291	0.470	0.348	
		Left Cheek	0.492	0.659	0.370	0.625	0.284	1.151	1.117	1.146	
		Left Tilted	0.095	0.424	0.239	0.564	0.100	0.519	0.659	0.434	
	LAT	N71_Ant1	Right Cheek	0.102	0.119	0.127	0.227	0.055	0.221	0.329	0.284
			Right Tilted	0.040	0.128	0.155	0.307	0.030	0.168	0.347	0.225
			Left Cheek	0.064	0.659	0.370	0.625	0.284	0.723	0.689	0.718
			Left Tilted	0.032	0.424	0.239	0.564	0.100	0.456	0.596	0.371
N5_Ant1		Right Cheek	0.171	0.119	0.127	0.227	0.055	0.290	0.398	0.353	
		Right Tilted	0.071	0.128	0.155	0.307	0.030	0.199	0.378	0.256	
		Left Cheek	0.128	0.659	0.370	0.625	0.284	0.787	0.753	0.782	
		Left Tilted	0.059	0.424	0.239	0.564	0.100	0.483	0.623	0.398	
N66_Ant3		Right Cheek	0.156	0.119	0.127	0.227	0.055	0.275	0.383	0.338	
		Right Tilted	0.091	0.128	0.155	0.307	0.030	0.219	0.398	0.276	
		Left Cheek	0.134	0.659	0.370	0.625	0.284	0.793	0.759	0.788	
		Left Tilted	0.102	0.424	0.239	0.564	0.100	0.526	0.666	0.441	
N25_Ant3		Right Cheek	0.297	0.119	0.127	0.227	0.055	0.416	0.524	0.479	
		Right Tilted	0.173	0.128	0.155	0.307	0.030	0.301	0.480	0.358	
		Left Cheek	0.220	0.659	0.370	0.625	0.284	0.879	0.845	0.874	
		Left Tilted	0.198	0.424	0.239	0.564	0.100	0.622	0.762	0.537	
N7_Ant3		Right Cheek	0.278	0.119	0.127	0.227	0.055	0.397	0.505	0.460	
		Right Tilted	0.207	0.128	0.155	0.307	0.030	0.335	0.514	0.392	
		Left Cheek	0.384	0.659	0.370	0.625	0.284	1.043	1.009	1.038	
		Left Tilted	0.143	0.424	0.239	0.564	0.100	0.567	0.707	0.482	



	N41_Ant3	Right Cheek	0.281	0.119	0.127	0.227	0.055	0.400	0.508	0.463
		Right Tilted	0.172	0.128	0.155	0.307	0.030	0.300	0.479	0.357
		Left Cheek	0.414	0.659	0.370	0.625	0.284	1.073	1.039	1.068
		Left Tilted	0.141	0.424	0.239	0.564	0.100	0.565	0.705	0.480
	N41(HPUE)_Ant3	Right Cheek	0.379	0.119	0.127	0.227	0.055	0.498	0.606	0.561
		Right Tilted	0.239	0.128	0.155	0.307	0.030	0.367	0.546	0.424
		Left Cheek	0.558	0.659	0.370	0.625	0.284	1.217	1.183	1.212
		Left Tilted	0.213	0.424	0.239	0.564	0.100	0.637	0.777	0.552
EN-DC_Ant0	N66_Ant0	Right Cheek	0.739	0.119	0.127	0.227	0.055	0.858	0.966	0.921
		Right Tilted	1.077	0.128	0.155	0.307	0.030	1.205	1.384	1.262
		Left Cheek	0.595	0.659	0.370	0.625	0.284	1.254	1.220	1.249
		Left Tilted	0.774	0.424	0.239	0.564	0.100	1.198	1.338	1.113
	N41_Ant0	Right Cheek	0.709	0.119	0.127	0.227	0.055	0.828	0.936	0.891
		Right Tilted	1.039	0.128	0.155	0.307	0.030	1.167	1.346	1.224
		Left Cheek	0.622	0.659	0.370	0.625	0.284	1.281	1.247	1.276
		Left Tilted	0.830	0.424	0.239	0.564	0.100	1.254	1.394	1.169
	N41(HPUE)_Ant0	Right Cheek	0.709	0.119	0.127	0.227	0.055	0.828	0.936	0.891
		Right Tilted	1.039	0.128	0.155	0.307	0.030	1.167	1.346	1.224
		Left Cheek	0.622	0.659	0.370	0.625	0.284	1.281	1.247	1.276
		Left Tilted	0.830	0.424	0.239	0.564	0.100	1.254	1.394	1.169
EN-DC_Ant0	N66_Ant1	Right Cheek	0.076	0.119	0.127	0.227	0.055	0.195	0.303	0.258
		Right Tilted		0.128	0.155	0.307	0.030	0.128	0.307	0.185
		Left Cheek		0.659	0.370	0.625	0.284	0.659	0.625	0.654
		Left Tilted		0.424	0.239	0.564	0.100	0.424	0.564	0.339
	N41_Ant1	Right Cheek	0.209	0.119	0.127	0.227	0.055	0.328	0.436	0.391
		Right Tilted	0.054	0.128	0.155	0.307	0.030	0.182	0.361	0.239
		Left Cheek	0.099	0.659	0.370	0.625	0.284	0.758	0.724	0.753
		Left Tilted	0.082	0.424	0.239	0.564	0.100	0.506	0.646	0.421
	N41(HPUE)_Ant1	Right Cheek	0.309	0.119	0.127	0.227	0.055	0.428	0.536	0.491
		Right Tilted	0.081	0.128	0.155	0.307	0.030	0.209	0.388	0.266
		Left Cheek	0.148	0.659	0.370	0.625	0.284	0.807	0.773	0.802
		Left Tilted	0.128	0.424	0.239	0.564	0.100	0.552	0.692	0.467



# FCC SAR TEST REPORT

Report No. : FA002801-07

WWAN Band	Exposure Position	1	2	3	4	6	1+4+6	1+2+4	1+3+4+6	
		NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 2	5GHz WLAN Ant 1+2	Bluetooth Ant 1	Summed	Summed	Summed	
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
UAT	N71_Ant0	Right Cheek	0.694	0.073	0.083	0.116	0.055	0.865	0.883	0.948
		Right Tilted	0.609	0.078	0.101	0.125	0.030	0.764	0.812	0.865
		Left Cheek	0.496	0.423	0.226	0.254	0.284	1.034	1.173	1.260
		Left Tilted	0.461	0.272	0.155	0.227	0.100	0.788	0.960	0.943
	N5_Ant0	Right Cheek	0.778	0.073	0.083	0.116	0.055	0.949	0.967	1.032
		Right Tilted	0.625	0.078	0.101	0.125	0.030	0.780	0.828	0.881
		Left Cheek	0.592	0.423	0.226	0.254	0.284	1.130	1.269	1.356
		Left Tilted	0.581	0.272	0.155	0.227	0.100	0.908	1.080	1.063
	N66_Ant2	Right Cheek	1.083	0.073	0.083	0.116	0.055	1.254	1.272	1.337
		Right Tilted	0.340	0.078	0.101	0.125	0.030	0.495	0.543	0.596
		Left Cheek	0.314	0.423	0.226	0.254	0.284	0.852	0.991	1.078
		Left Tilted	0.214	0.272	0.155	0.227	0.100	0.541	0.713	0.696
	N25_Ant2	Right Cheek	1.136	0.073	0.083	0.116	0.055	1.307	1.325	1.390
		Right Tilted	0.332	0.078	0.101	0.125	0.030	0.487	0.535	0.588
		Left Cheek	0.314	0.423	0.226	0.254	0.284	0.852	0.991	1.078
		Left Tilted	0.245	0.272	0.155	0.227	0.100	0.572	0.744	0.727
	N7_Ant2	Right Cheek	1.145	0.073	0.083	0.116	0.055	1.316	1.334	1.399
		Right Tilted	0.375	0.078	0.101	0.125	0.030	0.530	0.578	0.631
		Left Cheek	0.234	0.423	0.226	0.254	0.284	0.772	0.911	0.998
		Left Tilted	0.186	0.272	0.155	0.227	0.100	0.513	0.685	0.668
	N41_Ant2	Right Cheek	0.949	0.073	0.083	0.116	0.055	1.120	1.138	1.203
		Right Tilted	0.380	0.078	0.101	0.125	0.030	0.535	0.583	0.636
		Left Cheek	0.229	0.423	0.226	0.254	0.284	0.767	0.906	0.993
		Left Tilted	0.167	0.272	0.155	0.227	0.100	0.494	0.666	0.649
	N41(HPUE)_Ant2	Right Cheek	1.142	0.073	0.083	0.116	0.055	1.313	1.331	1.396
		Right Tilted	0.381	0.078	0.101	0.125	0.030	0.536	0.584	0.637
		Left Cheek	0.240	0.423	0.226	0.254	0.284	0.778	0.917	1.004
		Left Tilted	0.161	0.272	0.155	0.227	0.100	0.488	0.660	0.643
	N77_Ant7	Right Cheek	0.837	0.073	0.083	0.116	0.055	1.008	1.026	1.091
		Right Tilted	0.163	0.078	0.101	0.125	0.030	0.318	0.366	0.419
		Left Cheek	0.492	0.423	0.226	0.254	0.284	1.030	1.169	1.256
		Left Tilted	0.095	0.272	0.155	0.227	0.100	0.422	0.594	0.577
LAT	N71_Ant1	Right Cheek	0.102	0.073	0.083	0.116	0.055	0.273	0.291	0.356
		Right Tilted	0.040	0.078	0.101	0.125	0.030	0.195	0.243	0.296
		Left Cheek	0.064	0.423	0.226	0.254	0.284	0.602	0.741	0.828
		Left Tilted	0.032	0.272	0.155	0.227	0.100	0.359	0.531	0.514
	N5_Ant1	Right Cheek	0.171	0.073	0.083	0.116	0.055	0.342	0.360	0.425
		Right Tilted	0.071	0.078	0.101	0.125	0.030	0.226	0.274	0.327
		Left Cheek	0.128	0.423	0.226	0.254	0.284	0.666	0.805	0.892
		Left Tilted	0.059	0.272	0.155	0.227	0.100	0.386	0.558	0.541
	N66_Ant3	Right Cheek	0.156	0.073	0.083	0.116	0.055	0.327	0.345	0.410
		Right Tilted	0.091	0.078	0.101	0.125	0.030	0.246	0.294	0.347
		Left Cheek	0.134	0.423	0.226	0.254	0.284	0.672	0.811	0.898
		Left Tilted	0.102	0.272	0.155	0.227	0.100	0.429	0.601	0.584
	N25_Ant3	Right Cheek	0.297	0.073	0.083	0.116	0.055	0.468	0.486	0.551
		Right Tilted	0.173	0.078	0.101	0.125	0.030	0.328	0.376	0.429
		Left Cheek	0.220	0.423	0.226	0.254	0.284	0.758	0.897	0.984
		Left Tilted	0.198	0.272	0.155	0.227	0.100	0.525	0.697	0.680
	N7_Ant3	Right Cheek	0.278	0.073	0.083	0.116	0.055	0.449	0.467	0.532
		Right Tilted	0.207	0.078	0.101	0.125	0.030	0.362	0.410	0.463
		Left Cheek	0.384	0.423	0.226	0.254	0.284	0.922	1.061	1.148
		Left Tilted	0.143	0.272	0.155	0.227	0.100	0.470	0.642	0.625



	N41_Ant3	Right Cheek	0.281	0.073	0.083	0.116	0.055	0.452	0.470	0.535
		Right Tilted	0.172	0.078	0.101	0.125	0.030	0.327	0.375	0.428
		Left Cheek	0.414	0.423	0.226	0.254	0.284	0.952	1.091	1.178
		Left Tilted	0.141	0.272	0.155	0.227	0.100	0.468	0.640	0.623
	N41(HPUE)_Ant3	Right Cheek	0.379	0.073	0.083	0.116	0.055	0.550	0.568	0.633
		Right Tilted	0.239	0.078	0.101	0.125	0.030	0.394	0.442	0.495
		Left Cheek	0.558	0.423	0.226	0.254	0.284	1.096	1.235	1.322
		Left Tilted	0.213	0.272	0.155	0.227	0.100	0.540	0.712	0.695
EN-DC_Ant0	N66_Ant0	Right Cheek	0.739	0.073	0.083	0.116	0.055	0.910	0.928	0.993
		Right Tilted	1.077	0.078	0.101	0.125	0.030	1.232	1.280	1.333
		Left Cheek	0.595	0.423	0.226	0.254	0.284	1.133	1.272	1.359
		Left Tilted	0.774	0.272	0.155	0.227	0.100	1.101	1.273	1.256
	N41_Ant0	Right Cheek	0.709	0.073	0.083	0.116	0.055	0.880	0.898	0.963
		Right Tilted	1.039	0.078	0.101	0.125	0.030	1.194	1.242	1.295
		Left Cheek	0.622	0.423	0.226	0.254	0.284	1.160	1.299	1.386
		Left Tilted	0.830	0.272	0.155	0.227	0.100	1.157	1.329	1.312
	N41(HPUE)_Ant0	Right Cheek	0.709	0.073	0.083	0.116	0.055	0.880	0.898	0.963
		Right Tilted	1.039	0.078	0.101	0.125	0.030	1.194	1.242	1.295
		Left Cheek	0.622	0.423	0.226	0.254	0.284	1.160	1.299	1.386
		Left Tilted	0.830	0.272	0.155	0.227	0.100	1.157	1.329	1.312
EN-DC_Ant1	N66_Ant1	Right Cheek	0.076	0.073	0.083	0.116	0.055	0.247	0.265	0.330
		Right Tilted		0.078	0.101	0.125	0.030	0.155	0.203	0.256
		Left Cheek		0.423	0.226	0.254	0.284	0.538	0.677	0.764
		Left Tilted		0.272	0.155	0.227	0.100	0.327	0.499	0.482
	N41_Ant1	Right Cheek	0.209	0.073	0.083	0.116	0.055	0.380	0.398	0.463
		Right Tilted	0.054	0.078	0.101	0.125	0.030	0.209	0.257	0.310
		Left Cheek	0.099	0.423	0.226	0.254	0.284	0.637	0.776	0.863
		Left Tilted	0.082	0.272	0.155	0.227	0.100	0.409	0.581	0.564
	N41(HPUE)_Ant1	Right Cheek	0.309	0.073	0.083	0.116	0.055	0.480	0.498	0.563
		Right Tilted	0.104	0.078	0.101	0.125	0.030	0.259	0.307	0.360
		Left Cheek	0.193	0.423	0.226	0.254	0.284	0.731	0.870	0.957
		Left Tilted	0.168	0.272	0.155	0.227	0.100	0.495	0.667	0.650



20.3 Hotspot Exposure Conditions

Exposure Position	2	3	4	6	2+4 Summed 1g SAR (W/kg)	3+4+6 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	2.4GHz WLAN Ant 2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)		
Front	0.255	0.090	0.263	0.141	0.518	0.494
Back	0.331	0.075	0.664	0.156	0.995	0.895
Left side					0.000	0.000
Right side	0.486	0.077	0.623	0.331	1.109	1.031
Top side	0.092	0.126	0.555	0.006	0.647	0.687
Bottom side					0.000	0.000

WWAN Band	Exposure Position	1	2	3	4	6	1+6 Summed 1g SAR (W/kg)	3+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)	2.4GHz WLAN Ant 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	0.246	0.424	0.141	0.347	0.141	0.387	0.282	0.488
		Back	0.544	0.561	0.124	0.971	0.156	0.700	0.280	1.127
		Left side	0.055					0.055	0.000	0.000
		Right side	0.166	0.815	0.126	0.810	0.331	0.497	0.457	1.141
		Top side	0.234	0.156	0.203	0.698	0.006	0.240	0.209	0.704
		Bottom side						0.000	0.000	0.000
	GSM1900_UAT	Front	0.275	0.424	0.141	0.347	0.141	0.416	0.282	0.488
		Back	0.211	0.561	0.124	0.971	0.156	0.367	0.280	1.127
		Left side	0.433					0.433	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
WCDMA	WCDMA V_UAT	Top side	0.210	0.156	0.203	0.698	0.006	0.216	0.209	0.704
		Bottom side						0.000	0.000	0.000
		Front	0.400	0.424	0.141	0.347	0.141	0.541	0.282	0.488
		Back	0.664	0.561	0.124	0.971	0.156	0.820	0.280	1.127
		Left side	0.087					0.087	0.000	0.000
		Right side	0.195	0.815	0.126	0.810	0.331	0.526	0.457	1.141
	WCDMA IV_UAT	Top side	0.397	0.156	0.203	0.698	0.006	0.403	0.209	0.704
		Bottom side						0.000	0.000	0.000
		Front	0.319	0.424	0.141	0.347	0.141	0.460	0.282	0.488
		Back	0.371	0.561	0.124	0.971	0.156	0.527	0.280	1.127
		Left side	0.595					0.595	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
	WCDMA II_UAT	Top side	0.126	0.156	0.203	0.698	0.006	0.132	0.209	0.704
		Bottom side						0.000	0.000	0.000
		Front	0.364	0.424	0.141	0.347	0.141	0.505	0.282	0.488
		Back	0.326	0.561	0.124	0.971	0.156	0.482	0.280	1.127
		Left side	0.590					0.590	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
CDMA	CDMA2000 BC10_UAT	Top side	0.285	0.156	0.203	0.698	0.006	0.291	0.209	0.704
		Bottom side						0.000	0.000	0.000
		Front	0.257	0.424	0.141	0.347	0.141	0.398	0.282	0.488
		Back	0.375	0.561	0.124	0.971	0.156	0.531	0.280	1.127
		Left side	0.055					0.055	0.000	0.000
		Right side	0.085	0.815	0.126	0.810	0.331	0.416	0.457	1.141
	CDMA2000	Top side	0.222	0.156	0.203	0.698	0.006	0.228	0.209	0.704
		Bottom side						0.000	0.000	0.000
		Front	0.346	0.424	0.141	0.347	0.141	0.487	0.282	0.488
		Back								



	BC0_UAT	Back	0.536	0.561	0.124	0.971	0.156	0.692	0.280	1.127	
		Left side	0.065						0.065	0.000	0.000
		Right side	0.128	0.815	0.126	0.810	0.331	0.459	0.457	1.141	
		Top side	0.288	0.156	0.203	0.698	0.006	0.294	0.209	0.704	
		Bottom side							0.000	0.000	0.000
	CDMA2000 BC1_UAT	Front	0.524	0.424	0.141	0.347	0.141	0.665	0.282	0.488	
		Back	0.440	0.561	0.124	0.971	0.156	0.596	0.280	1.127	
		Left side	0.853						0.853	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141	
		Top side	0.414	0.156	0.203	0.698	0.006	0.420	0.209	0.704	
LTE	LTE Band 71_UAT	Front	0.198	0.424	0.141	0.347	0.141	0.339	0.282	0.488	
		Back	0.307	0.561	0.124	0.971	0.156	0.463	0.280	1.127	
		Left side	0.163						0.163	0.000	0.000
		Right side	0.143	0.815	0.126	0.810	0.331	0.474	0.457	1.141	
		Top side	0.215	0.156	0.203	0.698	0.006	0.221	0.209	0.704	
	LTE Band 12_UAT	Bottom side							0.000	0.000	0.000
		Front	0.311	0.424	0.141	0.347	0.141	0.452	0.282	0.488	
		Back	0.395	0.561	0.124	0.971	0.156	0.551	0.280	1.127	
		Left side	0.189						0.189	0.000	0.000
		Right side	0.194	0.815	0.126	0.810	0.331	0.525	0.457	1.141	
LTE Band 13_UAT	Top side	0.306	0.156	0.203	0.698	0.006	0.312	0.209	0.704		
	Bottom side							0.000	0.000	0.000	
	Front	0.214	0.424	0.141	0.347	0.141	0.355	0.282	0.488		
	Back	0.290	0.561	0.124	0.971	0.156	0.446	0.280	1.127		
	Left side	0.060						0.060	0.000	0.000	
LTE Band 5_UAT	Right side	0.095	0.815	0.126	0.810	0.331	0.426	0.457	1.141		
	Top side	0.187	0.156	0.203	0.698	0.006	0.193	0.209	0.704		
	Bottom side							0.000	0.000	0.000	
	Front	0.440	0.424	0.141	0.347	0.141	0.581	0.282	0.488		
	Back	0.677	0.561	0.124	0.971	0.156	0.833	0.280	1.127		
LTE Band 26_UAT	Left side	0.078						0.078	0.000	0.000	
	Right side	0.177	0.815	0.126	0.810	0.331	0.508	0.457	1.141		
	Top side	0.440	0.156	0.203	0.698	0.006	0.446	0.209	0.704		
	Bottom side							0.000	0.000	0.000	
	Front	0.352	0.424	0.141	0.347	0.141	0.493	0.282	0.488		
LTE Band 66_UAT	Back	0.504	0.561	0.124	0.971	0.156	0.660	0.280	1.127		
	Left side	0.083						0.083	0.000	0.000	
	Right side	0.176	0.815	0.126	0.810	0.331	0.507	0.457	1.141		
	Top side	0.352	0.156	0.203	0.698	0.006	0.358	0.209	0.704		
	Bottom side							0.000	0.000	0.000	
LTE Band 25_UAT	Front	0.344	0.424	0.141	0.347	0.141	0.485	0.282	0.488		
	Back	0.364	0.561	0.124	0.971	0.156	0.520	0.280	1.127		
	Left side	0.758						0.758	0.000	0.000	
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141		
	Top side	0.203	0.156	0.203	0.698	0.006	0.209	0.209	0.704		
LTE Band 30_UAT	Bottom side							0.000	0.000	0.000	
	Front	0.428	0.424	0.141	0.347	0.141	0.569	0.282	0.488		
	Back	0.431	0.561	0.124	0.971	0.156	0.587	0.280	1.127		
	Left side	0.771						0.771	0.000	0.000	
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141		
LTE Band 30_UAT	Top side	0.244	0.156	0.203	0.698	0.006	0.250	0.209	0.704		
	Bottom side							0.000	0.000	0.000	
	Front	0.492	0.424	0.141	0.347	0.141	0.633	0.282	0.488		
LTE Band 30_UAT	Back	0.720	0.561	0.124	0.971	0.156	0.876	0.280	1.127		
	Left side	0.870						0.870	0.000	0.000	





		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.203	0.156	0.203	0.698	0.006	0.209	0.209	0.704
		Bottom side						0.000	0.000	0.000
	LTE Band 7_UAT	Front	0.386	0.424	0.141	0.347	0.141	0.527	0.282	0.488
		Back	0.650	0.561	0.124	0.971	0.156	0.806	0.280	1.127
		Left side	1.156					1.156	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.094	0.156	0.203	0.698	0.006	0.100	0.209	0.704
		Bottom side						0.000	0.000	0.000
	LTE Band 41_UAT	Front	0.415	0.424	0.141	0.347	0.141	0.556	0.282	0.488
		Back	0.408	0.561	0.124	0.971	0.156	0.564	0.280	1.127
		Left side	1.176					1.176	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.063	0.156	0.203	0.698	0.006	0.069	0.209	0.704
		Bottom side						0.000	0.000	0.000
	LTE Band 41(HPUE)_UAT	Front	0.502	0.424	0.141	0.347	0.141	0.643	0.282	0.488
		Back	0.598	0.561	0.124	0.971	0.156	0.754	0.280	1.127
		Left side	1.149					1.149	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.063	0.156	0.203	0.698	0.006	0.069	0.209	0.704
		Bottom side						0.000	0.000	0.000
	LTE Band 48_UAT	Front	0.511	0.424	0.141	0.347	0.141	0.652	0.282	0.488
		Back	0.645	0.561	0.124	0.971	0.156	0.801	0.280	1.127
		Left side	1.016					1.016	0.000	0.000
Right side			0.815	0.126	0.810	0.331	0.331	0.457	1.141	
Top side		0.145	0.156	0.203	0.698	0.006	0.151	0.209	0.704	
Bottom side							0.000	0.000	0.000	
EN-DC_Ant0	LTE Band 66_Ant0	Front	0.226	0.424	0.141	0.347	0.141	0.367	0.282	0.488
		Back	0.436	0.561	0.124	0.971	0.156	0.592	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.776	0.156	0.203	0.698	0.006	0.782	0.209	0.704
		Bottom side						0.000	0.000	0.000
	LTE Band 7_Ant0	Front	0.279	0.424	0.141	0.347	0.141	0.420	0.282	0.488
		Back	0.497	0.561	0.124	0.971	0.156	0.653	0.280	1.127
		Left side	0.195					0.195	0.000	0.000
		Right side	0.086	0.815	0.126	0.810	0.331	0.417	0.457	1.141
		Top side	0.823	0.156	0.203	0.698	0.006	0.829	0.209	0.704
		Bottom side						0.000	0.000	0.000



WWAN Band		Exposure Position	1	2	3	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_UAT	Front	0.246	0.424	0.141	0.263	0.141	0.670	0.509	0.528
		Back	0.544	0.561	0.124	0.664	0.156	1.105	1.208	0.824
		Left side	0.055					0.055	0.055	0.055
		Right side	0.166	0.815	0.126	0.623	0.331	0.981	0.789	0.623
		Top side	0.234	0.156	0.203	0.555	0.006	0.390	0.789	0.443
		Bottom side						0.000	0.000	0.000
	GSM1900_UAT	Front	0.275	0.424	0.141	0.263	0.141	0.699	0.538	0.557
		Back	0.211	0.561	0.124	0.664	0.156	0.772	0.875	0.491
		Left side	0.433					0.433	0.433	0.433
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.210	0.156	0.203	0.555	0.006	0.366	0.765	0.419
		Bottom side						0.000	0.000	0.000
WCDMA	WCDMA V_UAT	Front	0.400	0.424	0.141	0.263	0.141	0.824	0.663	0.682
		Back	0.664	0.561	0.124	0.664	0.156	1.225	1.328	0.944
		Left side	0.087					0.087	0.087	0.087
		Right side	0.195	0.815	0.126	0.623	0.331	1.010	0.818	0.652
		Top side	0.397	0.156	0.203	0.555	0.006	0.553	0.952	0.606
		Bottom side						0.000	0.000	0.000
	WCDMA IV_UAT	Front	0.319	0.424	0.141	0.263	0.141	0.743	0.582	0.601
		Back	0.371	0.561	0.124	0.664	0.156	0.932	1.035	0.651
		Left side	0.595					0.595	0.595	0.595
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.126	0.156	0.203	0.555	0.006	0.282	0.681	0.335
		Bottom side						0.000	0.000	0.000
	WCDMA II_UAT	Front	0.364	0.424	0.141	0.263	0.141	0.788	0.627	0.646
		Back	0.326	0.561	0.124	0.664	0.156	0.887	0.990	0.606
		Left side	0.590					0.590	0.590	0.590
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.285	0.156	0.203	0.555	0.006	0.441	0.840	0.494
		Bottom side						0.000	0.000	0.000
CDMA	CDMA2000 BC10_UAT	Front	0.257	0.424	0.141	0.263	0.141	0.681	0.520	0.539
		Back	0.375	0.561	0.124	0.664	0.156	0.936	1.039	0.655
		Left side	0.055					0.055	0.055	0.055
		Right side	0.085	0.815	0.126	0.623	0.331	0.900	0.708	0.542
		Top side	0.222	0.156	0.203	0.555	0.006	0.378	0.777	0.431
		Bottom side						0.000	0.000	0.000
	CDMA2000 BC0_UAT	Front	0.346	0.424	0.141	0.263	0.141	0.770	0.609	0.628
		Back	0.536	0.561	0.124	0.664	0.156	1.097	1.200	0.816
		Left side	0.065					0.065	0.065	0.065
		Right side	0.128	0.815	0.126	0.623	0.331	0.943	0.751	0.585
		Top side	0.288	0.156	0.203	0.555	0.006	0.444	0.843	0.497
		Bottom side						0.000	0.000	0.000
	CDMA2000 BC1_UAT	Front	0.524	0.424	0.141	0.263	0.141	0.948	0.787	0.806
		Back	0.440	0.561	0.124	0.664	0.156	1.001	1.104	0.720
		Left side	0.853					0.853	0.853	0.853
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.414	0.156	0.203	0.555	0.006	0.570	0.969	0.623
		Bottom side						0.000	0.000	0.000
LTE	LTE Band 71_UAT	Front	0.198	0.424	0.141	0.263	0.141	0.622	0.461	0.480
		Back	0.307	0.561	0.124	0.664	0.156	0.868	0.971	0.587
		Left side	0.163					0.163	0.163	0.163
		Right side	0.143	0.815	0.126	0.623	0.331	0.958	0.766	0.600



		Top side	0.215	0.156	0.203	0.555	0.006	0.371	0.770	0.424	
		Bottom side							0.000	0.000	0.000
LTE Band 12_UAT		Front	0.311	0.424	0.141	0.263	0.141	0.735	0.574	0.593	
		Back	0.395	0.561	0.124	0.664	0.156	0.956	1.059	0.675	
		Left side	0.189						0.189	0.189	0.189
		Right side	0.194	0.815	0.126	0.623	0.331	1.009	0.817	0.651	
		Top side	0.306	0.156	0.203	0.555	0.006	0.462	0.861	0.515	
		Bottom side							0.000	0.000	0.000
LTE Band 13_UAT		Front	0.214	0.424	0.141	0.263	0.141	0.638	0.477	0.496	
		Back	0.290	0.561	0.124	0.664	0.156	0.851	0.954	0.570	
		Left side	0.060						0.060	0.060	0.060
		Right side	0.095	0.815	0.126	0.623	0.331	0.910	0.718	0.552	
		Top side	0.187	0.156	0.203	0.555	0.006	0.343	0.742	0.396	
		Bottom side							0.000	0.000	0.000
LTE Band 5_UAT		Front	0.440	0.424	0.141	0.263	0.141	0.864	0.703	0.722	
		Back	0.677	0.561	0.124	0.664	0.156	1.238	1.341	0.957	
		Left side	0.078						0.078	0.078	0.078
		Right side	0.177	0.815	0.126	0.623	0.331	0.992	0.800	0.634	
		Top side	0.440	0.156	0.203	0.555	0.006	0.596	0.995	0.649	
		Bottom side							0.000	0.000	0.000
LTE Band 26_UAT		Front	0.352	0.424	0.141	0.263	0.141	0.776	0.615	0.634	
		Back	0.504	0.561	0.124	0.664	0.156	1.065	1.168	0.784	
		Left side	0.083						0.083	0.083	0.083
		Right side	0.176	0.815	0.126	0.623	0.331	0.991	0.799	0.633	
		Top side	0.352	0.156	0.203	0.555	0.006	0.508	0.907	0.561	
		Bottom side							0.000	0.000	0.000
LTE Band 66_UAT		Front	0.344	0.424	0.141	0.263	0.141	0.768	0.607	0.626	
		Back	0.364	0.561	0.124	0.664	0.156	0.925	1.028	0.644	
		Left side	0.758						0.758	0.758	0.758
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.203	0.156	0.203	0.555	0.006	0.359	0.758	0.412	
		Bottom side							0.000	0.000	0.000
LTE Band 25_UAT		Front	0.428	0.424	0.141	0.263	0.141	0.852	0.691	0.710	
		Back	0.431	0.561	0.124	0.664	0.156	0.992	1.095	0.711	
		Left side	0.771						0.771	0.771	0.771
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.244	0.156	0.203	0.555	0.006	0.400	0.799	0.453	
		Bottom side							0.000	0.000	0.000
LTE Band 30_UAT		Front	0.492	0.424	0.141	0.263	0.141	0.916	0.755	0.774	
		Back	0.720	0.561	0.124	0.664	0.156	1.281	1.384	1.000	
		Left side	0.870						0.870	0.870	0.870
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.203	0.156	0.203	0.555	0.006	0.359	0.758	0.412	
		Bottom side							0.000	0.000	0.000
LTE Band 7_UAT		Front	0.386	0.424	0.141	0.263	0.141	0.810	0.649	0.668	
		Back	0.650	0.561	0.124	0.664	0.156	1.211	1.314	0.930	
		Left side	1.156						1.156	1.156	1.156
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.094	0.156	0.203	0.555	0.006	0.250	0.649	0.303	
		Bottom side							0.000	0.000	0.000
LTE Band 41_UAT		Front	0.415	0.424	0.141	0.263	0.141	0.839	0.678	0.697	
		Back	0.408	0.561	0.124	0.664	0.156	0.969	1.072	0.688	
		Left side	1.176						1.176	1.176	1.176
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.063	0.156	0.203	0.555	0.006	0.219	0.618	0.272	
		Bottom side							0.000	0.000	0.000



	LTE Band 41(HPUE)_UAT	Front	0.502	0.424	0.141	0.263	0.141	0.926	0.765	0.784
		Back	0.598	0.561	0.124	0.664	0.156	1.159	1.262	0.878
		Left side	1.149					1.149	1.149	1.149
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.063	0.156	0.203	0.555	0.006	0.219	0.618	0.272
		Bottom side						0.000	0.000	0.000
	LTE Band 48_UAT	Front	0.511	0.424	0.141	0.263	0.141	0.935	0.774	0.793
		Back	0.645	0.561	0.124	0.664	0.156	1.206	1.309	0.925
		Left side	1.016					1.016	1.016	1.016
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.145	0.156	0.203	0.555	0.006	0.301	0.700	0.354
		Bottom side						0.000	0.000	0.000
EN-DC_Ant0	LTE Band 66_Ant0	Front	0.226	0.424	0.141	0.263	0.141	0.650	0.489	0.508
		Back	0.436	0.561	0.124	0.664	0.156	0.997	1.100	0.716
		Left side						0.000	0.000	0.000
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.776	0.156	0.203	0.555	0.006	0.932	1.331	0.985
		Bottom side						0.000	0.000	0.000
	LTE Band 7_Ant0	Front	0.279	0.424	0.141	0.263	0.141	0.703	0.542	0.561
		Back	0.497	0.561	0.124	0.664	0.156	1.058	1.161	0.777
		Left side	0.195					0.195	0.195	0.195
		Right side	0.086	0.815	0.126	0.623	0.331	0.901	0.709	0.543
		Top side	0.823	0.156	0.203	0.555	0.006	0.979	1.378	1.032
		Bottom side						0.000	0.000	0.000



**FCC SAR TEST REPORT**

**Report No. : FA002801-07**

WWAN Band		Exposure Position	1	2	3	4	6	1+4+6 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+3+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_UAT	Front	0.246	0.203	0.066	0.135	0.141	0.522	0.584	0.588
		Back	0.544	0.271	0.058	0.397	0.156	1.097	1.212	1.155
		Left side	0.055					0.055	0.055	0.055
		Right side	0.166	0.394	0.061	0.315	0.331	0.812	0.875	0.873
		Top side	0.234	0.086	0.096	0.280	0.006	0.520	0.600	0.616
		Bottom side						0.000	0.000	0.000
	GSM1900_UAT	Front	0.275	0.203	0.066	0.135	0.141	0.551	0.613	0.617
		Back	0.211	0.271	0.058	0.397	0.156	0.764	0.879	0.822
		Left side	0.433					0.433	0.433	0.433
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.210	0.086	0.096	0.280	0.006	0.496	0.576	0.592
		Bottom side						0.000	0.000	0.000
WCDMA	WCDMA V_UAT	Front	0.400	0.203	0.066	0.135	0.141	0.676	0.738	0.742
		Back	0.664	0.271	0.058	0.397	0.156	1.217	1.332	1.275
		Left side	0.087					0.087	0.087	0.087
		Right side	0.195	0.394	0.061	0.315	0.331	0.841	0.904	0.902
		Top side	0.397	0.086	0.096	0.280	0.006	0.683	0.763	0.779
		Bottom side						0.000	0.000	0.000
	WCDMA IV_UAT	Front	0.319	0.203	0.066	0.135	0.141	0.595	0.657	0.661
		Back	0.371	0.271	0.058	0.397	0.156	0.924	1.039	0.982
		Left side	0.595					0.595	0.595	0.595
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.126	0.086	0.096	0.280	0.006	0.412	0.492	0.508
		Bottom side						0.000	0.000	0.000
	WCDMA II_UAT	Front	0.364	0.203	0.066	0.135	0.141	0.640	0.702	0.706
		Back	0.326	0.271	0.058	0.397	0.156	0.879	0.994	0.937
		Left side	0.590					0.590	0.590	0.590
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.285	0.086	0.096	0.280	0.006	0.571	0.651	0.667
		Bottom side						0.000	0.000	0.000
CDMA	CDMA2000 BC10_UAT	Front	0.257	0.203	0.066	0.135	0.141	0.533	0.595	0.599
		Back	0.375	0.271	0.058	0.397	0.156	0.928	1.043	0.986
		Left side	0.055					0.055	0.055	0.055
		Right side	0.085	0.394	0.061	0.315	0.331	0.731	0.794	0.792
		Top side	0.222	0.086	0.096	0.280	0.006	0.508	0.588	0.604
		Bottom side						0.000	0.000	0.000
	CDMA2000 BC0_UAT	Front	0.346	0.203	0.066	0.135	0.141	0.622	0.684	0.688
		Back	0.536	0.271	0.058	0.397	0.156	1.089	1.204	1.147
		Left side	0.065					0.065	0.065	0.065
		Right side	0.128	0.394	0.061	0.315	0.331	0.774	0.837	0.835
		Top side	0.288	0.086	0.096	0.280	0.006	0.574	0.654	0.670
		Bottom side						0.000	0.000	0.000
	CDMA2000 BC1_UAT	Front	0.524	0.203	0.066	0.135	0.141	0.800	0.862	0.866
		Back	0.440	0.271	0.058	0.397	0.156	0.993	1.108	1.051
		Left side	0.853					0.853	0.853	0.853
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.414	0.086	0.096	0.280	0.006	0.700	0.780	0.796
		Bottom side						0.000	0.000	0.000
LTE	LTE Band 71_UAT	Front	0.198	0.203	0.066	0.135	0.141	0.474	0.536	0.540
		Back	0.307	0.271	0.058	0.397	0.156	0.860	0.975	0.918
		Left side	0.163					0.163	0.163	0.163
		Right side	0.143	0.394	0.061	0.315	0.331	0.789	0.852	0.850



		Top side	0.215	0.086	0.096	0.280	0.006	0.501	0.581	0.597
		Bottom side						0.000	0.000	0.000
LTE Band 12_UAT		Front	0.311	0.203	0.066	0.135	0.141	0.587	0.649	0.653
		Back	0.395	0.271	0.058	0.397	0.156	0.948	1.063	1.006
		Left side	0.189					0.189	0.189	0.189
		Right side	0.194	0.394	0.061	0.315	0.331	0.840	0.903	0.901
		Top side	0.306	0.086	0.096	0.280	0.006	0.592	0.672	0.688
		Bottom side						0.000	0.000	0.000
LTE Band 13_UAT		Front	0.214	0.203	0.066	0.135	0.141	0.490	0.552	0.556
		Back	0.290	0.271	0.058	0.397	0.156	0.843	0.958	0.901
		Left side	0.060					0.060	0.060	0.060
		Right side	0.095	0.394	0.061	0.315	0.331	0.741	0.804	0.802
		Top side	0.187	0.086	0.096	0.280	0.006	0.473	0.553	0.569
		Bottom side						0.000	0.000	0.000
LTE Band 5_UAT		Front	0.440	0.203	0.066	0.135	0.141	0.716	0.778	0.782
		Back	0.677	0.271	0.058	0.397	0.156	1.230	1.345	1.288
		Left side	0.078					0.078	0.078	0.078
		Right side	0.177	0.394	0.061	0.315	0.331	0.823	0.886	0.884
		Top side	0.440	0.086	0.096	0.280	0.006	0.726	0.806	0.822
		Bottom side						0.000	0.000	0.000
LTE Band 26_UAT		Front	0.352	0.203	0.066	0.135	0.141	0.628	0.690	0.694
		Back	0.504	0.271	0.058	0.397	0.156	1.057	1.172	1.115
		Left side	0.083					0.083	0.083	0.083
		Right side	0.176	0.394	0.061	0.315	0.331	0.822	0.885	0.883
		Top side	0.352	0.086	0.096	0.280	0.006	0.638	0.718	0.734
		Bottom side						0.000	0.000	0.000
LTE Band 66_UAT		Front	0.344	0.203	0.066	0.135	0.141	0.620	0.682	0.686
		Back	0.364	0.271	0.058	0.397	0.156	0.917	1.032	0.975
		Left side	0.758					0.758	0.758	0.758
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.203	0.086	0.096	0.280	0.006	0.489	0.569	0.585
		Bottom side						0.000	0.000	0.000
LTE Band 25_UAT		Front	0.428	0.203	0.066	0.135	0.141	0.704	0.766	0.770
		Back	0.431	0.271	0.058	0.397	0.156	0.984	1.099	1.042
		Left side	0.771					0.771	0.771	0.771
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.244	0.086	0.096	0.280	0.006	0.530	0.610	0.626
		Bottom side						0.000	0.000	0.000
LTE Band 30_UAT		Front	0.492	0.203	0.066	0.135	0.141	0.768	0.830	0.834
		Back	0.720	0.271	0.058	0.397	0.156	1.273	1.388	1.331
		Left side	0.870					0.870	0.870	0.870
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.203	0.086	0.096	0.280	0.006	0.489	0.569	0.585
		Bottom side						0.000	0.000	0.000
LTE Band 7_UAT		Front	0.386	0.203	0.066	0.135	0.141	0.662	0.724	0.728
		Back	0.650	0.271	0.058	0.397	0.156	1.203	1.318	1.261
		Left side	1.156					1.156	1.156	1.156
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.094	0.086	0.096	0.280	0.006	0.380	0.460	0.476
		Bottom side						0.000	0.000	0.000
LTE Band 41_UAT		Front	0.415	0.203	0.066	0.135	0.141	0.691	0.753	0.757
		Back	0.408	0.271	0.058	0.397	0.156	0.961	1.076	1.019
		Left side	1.176					1.176	1.176	1.176
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.063	0.086	0.096	0.280	0.006	0.349	0.429	0.445
		Bottom side						0.000	0.000	0.000



	LTE Band 41(HPUE)_UAT	Front	0.502	0.203	0.066	0.135	0.141	0.778	0.840	0.844
		Back	0.598	0.271	0.058	0.397	0.156	1.151	1.266	1.209
		Left side	1.149					1.149	1.149	1.149
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.063	0.086	0.096	0.280	0.006	0.349	0.429	0.445
		Bottom side						0.000	0.000	0.000
	LTE Band 48_UAT	Front	0.511	0.203	0.066	0.135	0.141	0.787	0.849	0.853
		Back	0.645	0.271	0.058	0.397	0.156	1.198	1.313	1.256
		Left side	1.016					1.016	1.016	1.016
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.145	0.086	0.096	0.280	0.006	0.431	0.511	0.527
		Bottom side						0.000	0.000	0.000
EN-DC_Ant0	LTE Band 66_Ant0	Front	0.226	0.203	0.066	0.135	0.141	0.502	0.564	0.568
		Back	0.436	0.271	0.058	0.397	0.156	0.989	1.104	1.047
		Left side						0.000	0.000	0.000
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.776	0.086	0.096	0.280	0.006	1.062	1.142	1.158
		Bottom side						0.000	0.000	0.000
	LTE Band 7_Ant0	Front	0.279	0.203	0.066	0.135	0.141	0.555	0.617	0.621
		Back	0.497	0.271	0.058	0.397	0.156	1.050	1.165	1.108
		Left side	0.195					0.195	0.195	0.195
		Right side	0.086	0.394	0.061	0.315	0.331	0.732	0.795	0.793
		Top side	0.823	0.086	0.096	0.280	0.006	1.109	1.189	1.205
		Bottom side						0.000	0.000	0.000



WWAN Band		Exposure Position	1	2	3	4	6	1+6 Summed 1g SAR (W/kg)	3+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_LAT	Front	0.294	0.424	0.141	0.347	0.141	0.435	0.282	0.488
		Back	0.404	0.561	0.124	0.971	0.156	0.560	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.449	0.815	0.126	0.810	0.331	0.780	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.235					0.235	0.000	0.000
	GSM1900_LAT	Front	0.430	0.424	0.141	0.347	0.141	0.571	0.282	0.488
		Back	0.546	0.561	0.124	0.971	0.156	0.702	0.280	1.127
		Left side	0.202					0.202	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.728					0.728	0.000	0.000
WCDMA	WCDMA V_LAT	Front	0.355	0.424	0.141	0.347	0.141	0.496	0.282	0.488
		Back	0.424	0.561	0.124	0.971	0.156	0.580	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.574	0.815	0.126	0.810	0.331	0.905	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.285					0.285	0.000	0.000
	WCDMA IV_LAT	Front	0.334	0.424	0.141	0.347	0.141	0.475	0.282	0.488
		Back	0.487	0.561	0.124	0.971	0.156	0.643	0.280	1.127
		Left side	0.156					0.156	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.568					0.568	0.000	0.000
	WCDMA II_LAT	Front	0.337	0.424	0.141	0.347	0.141	0.478	0.282	0.488
		Back	0.462	0.561	0.124	0.971	0.156	0.618	0.280	1.127
		Left side	0.187					0.187	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.571					0.571	0.000	0.000
CDMA	CDMA2000 BC10_LAT	Front	0.320	0.424	0.141	0.347	0.141	0.461	0.282	0.488
		Back	0.407	0.561	0.124	0.971	0.156	0.563	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.517	0.815	0.126	0.810	0.331	0.848	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.218					0.218	0.000	0.000
	CDMA2000 BC0_LAT	Front	0.360	0.424	0.141	0.347	0.141	0.501	0.282	0.488
		Back	0.455	0.561	0.124	0.971	0.156	0.611	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.531	0.815	0.126	0.810	0.331	0.862	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.254					0.254	0.000	0.000
	CDMA2000 BC1_LAT	Front	0.510	0.424	0.141	0.347	0.141	0.651	0.282	0.488
		Back	0.702	0.561	0.124	0.971	0.156	0.858	0.280	1.127
		Left side	0.263					0.263	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.819					0.819	0.000	0.000
LTE	LTE Band 71_LAT	Front	0.184	0.424	0.141	0.347	0.141	0.325	0.282	0.488
		Back	0.291	0.561	0.124	0.971	0.156	0.447	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.479	0.815	0.126	0.810	0.331	0.810	0.457	1.141





	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.162					0.162	0.000	0.000
LTE Band 12_LAT	Front	0.185	0.424	0.141	0.347	0.141	0.326	0.282	0.488
	Back	0.232	0.561	0.124	0.971	0.156	0.388	0.280	1.127
	Left side						0.000	0.000	0.000
	Right side	0.359	0.815	0.126	0.810	0.331	0.690	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.155						0.155	0.000
LTE Band 13_LAT	Front	0.261	0.424	0.141	0.347	0.141	0.402	0.282	0.488
	Back	0.360	0.561	0.124	0.971	0.156	0.516	0.280	1.127
	Left side						0.000	0.000	0.000
	Right side	0.454	0.815	0.126	0.810	0.331	0.785	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.212						0.212	0.000
LTE Band 5_LAT	Front	0.405	0.424	0.141	0.347	0.141	0.546	0.282	0.488
	Back	0.521	0.561	0.124	0.971	0.156	0.677	0.280	1.127
	Left side						0.000	0.000	0.000
	Right side	0.567	0.815	0.126	0.810	0.331	0.898	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.334						0.334	0.000
LTE Band 26_LAT	Front	0.292	0.424	0.141	0.347	0.141	0.433	0.282	0.488
	Back	0.371	0.561	0.124	0.971	0.156	0.527	0.280	1.127
	Left side						0.000	0.000	0.000
	Right side	0.491	0.815	0.126	0.810	0.331	0.822	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.226						0.226	0.000
LTE Band 66_LAT	Front	0.251	0.424	0.141	0.347	0.141	0.392	0.282	0.488
	Back	0.397	0.561	0.124	0.971	0.156	0.553	0.280	1.127
	Left side	0.103					0.103	0.000	0.000
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.534						0.534	0.000
LTE Band 25_LAT	Front	0.350	0.424	0.141	0.347	0.141	0.491	0.282	0.488
	Back	0.436	0.561	0.124	0.971	0.156	0.592	0.280	1.127
	Left side	0.181					0.181	0.000	0.000
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.448						0.448	0.000
LTE Band 30_LAT	Front	0.389	0.424	0.141	0.347	0.141	0.530	0.282	0.488
	Back	0.689	0.561	0.124	0.971	0.156	0.845	0.280	1.127
	Left side	0.211					0.211	0.000	0.000
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.728						0.728	0.000
LTE Band 7_LAT	Front	0.382	0.424	0.141	0.347	0.141	0.523	0.282	0.488
	Back	0.635	0.561	0.124	0.971	0.156	0.791	0.280	1.127
	Left side	0.180					0.180	0.000	0.000
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.705						0.705	0.000
LTE Band 41_LAT	Front	0.365	0.424	0.141	0.347	0.141	0.506	0.282	0.488
	Back	0.596	0.561	0.124	0.971	0.156	0.752	0.280	1.127
	Left side	0.133					0.133	0.000	0.000
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
	Bottom side	0.659						0.659	0.000



	LTE Band 41(HPUE)_LAT	Front	0.377	0.424	0.141	0.347	0.141	0.518	0.282	0.488
		Back	0.549	0.561	0.124	0.971	0.156	0.705	0.280	1.127
		Left side	0.131					0.131	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.568					0.568	0.000	0.000
EN-DC_Ant1	LTE Band 66_Ant1	Front	0.344	0.424	0.141	0.347	0.141	0.485	0.282	0.488
		Back	0.472	0.561	0.124	0.971	0.156	0.628	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.308	0.815	0.126	0.810	0.331	0.639	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.371					0.371	0.000	0.000
	LTE Band 7_Ant1	Front	0.398	0.424	0.141	0.347	0.141	0.539	0.282	0.488
		Back	0.226	0.561	0.124	0.971	0.156	0.382	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.150	0.815	0.126	0.810	0.331	0.481	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.219					0.219	0.000	0.000



WWAN Band		Exposure Position	1	2	3	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_LAT	Front	0.294	0.424	0.141	0.263	0.141	0.718	0.557	0.576
		Back	0.404	0.561	0.124	0.664	0.156	0.965	1.068	0.684
		Left side						0.000	0.000	0.000
		Right side	0.449	0.815	0.126	0.623	0.331	1.264	1.072	0.906
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.235					0.235	0.235	0.235
	GSM1900_LAT	Front	0.430	0.424	0.141	0.263	0.141	0.854	0.693	0.712
		Back	0.546	0.561	0.124	0.664	0.156	1.107	1.210	0.826
		Left side	0.202					0.202	0.202	0.202
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.728					0.728	0.728	0.728
WCDMA	WCDMA V_LAT	Front	0.355	0.424	0.141	0.263	0.141	0.779	0.618	0.637
		Back	0.424	0.561	0.124	0.664	0.156	0.985	1.088	0.704
		Left side						0.000	0.000	0.000
		Right side	0.574	0.815	0.126	0.623	0.331	1.389	1.197	1.031
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.285					0.285	0.285	0.285
	WCDMA IV_LAT	Front	0.334	0.424	0.141	0.263	0.141	0.758	0.597	0.616
		Back	0.487	0.561	0.124	0.664	0.156	1.048	1.151	0.767
		Left side	0.156					0.156	0.156	0.156
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.568					0.568	0.568	0.568
	WCDMA II_LAT	Front	0.337	0.424	0.141	0.263	0.141	0.761	0.600	0.619
		Back	0.462	0.561	0.124	0.664	0.156	1.023	1.126	0.742
		Left side	0.187					0.187	0.187	0.187
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.571					0.571	0.571	0.571
CDMA	CDMA2000 BC10_LAT	Front	0.320	0.424	0.141	0.263	0.141	0.744	0.583	0.602
		Back	0.407	0.561	0.124	0.664	0.156	0.968	1.071	0.687
		Left side						0.000	0.000	0.000
		Right side	0.517	0.815	0.126	0.623	0.331	1.332	1.140	0.974
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.218					0.218	0.218	0.218
	CDMA2000 BC0_LAT	Front	0.360	0.424	0.141	0.263	0.141	0.784	0.623	0.642
		Back	0.455	0.561	0.124	0.664	0.156	1.016	1.119	0.735
		Left side						0.000	0.000	0.000
		Right side	0.531	0.815	0.126	0.623	0.331	1.346	1.154	0.988
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.254					0.254	0.254	0.254
	CDMA2000 BC1_LAT	Front	0.510	0.424	0.141	0.263	0.141	0.934	0.773	0.792
		Back	0.702	0.561	0.124	0.664	0.156	1.263	1.366	0.982
		Left side	0.263					0.263	0.263	0.263
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.819					0.819	0.819	0.819
LTE	LTE Band 71_LAT	Front	0.184	0.424	0.141	0.263	0.141	0.608	0.447	0.466
		Back	0.291	0.561	0.124	0.664	0.156	0.852	0.955	0.571
		Left side						0.000	0.000	0.000
		Right side	0.479	0.815	0.126	0.623	0.331	1.294	1.102	0.936



	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.162					0.162	0.162	0.162
LTE Band 12_LAT	Front	0.185	0.424	0.141	0.263	0.141	0.609	0.448	0.467
	Back	0.232	0.561	0.124	0.664	0.156	0.793	0.896	0.512
	Left side						0.000	0.000	0.000
	Right side	0.359	0.815	0.126	0.623	0.331	1.174	0.982	0.816
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.155					0.155	0.155	0.155
LTE Band 13_LAT	Front	0.261	0.424	0.141	0.263	0.141	0.685	0.524	0.543
	Back	0.360	0.561	0.124	0.664	0.156	0.921	1.024	0.640
	Left side						0.000	0.000	0.000
	Right side	0.454	0.815	0.126	0.623	0.331	1.269	1.077	0.911
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.212					0.212	0.212	0.212
LTE Band 5_LAT	Front	0.405	0.424	0.141	0.263	0.141	0.829	0.668	0.687
	Back	0.521	0.561	0.124	0.664	0.156	1.082	1.185	0.801
	Left side						0.000	0.000	0.000
	Right side	0.567	0.815	0.126	0.623	0.331	1.382	1.190	1.024
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.334					0.334	0.334	0.334
LTE Band 26_LAT	Front	0.292	0.424	0.141	0.263	0.141	0.716	0.555	0.574
	Back	0.371	0.561	0.124	0.664	0.156	0.932	1.035	0.651
	Left side						0.000	0.000	0.000
	Right side	0.491	0.815	0.126	0.623	0.331	1.306	1.114	0.948
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.226					0.226	0.226	0.226
LTE Band 66_LAT	Front	0.251	0.424	0.141	0.263	0.141	0.675	0.514	0.533
	Back	0.397	0.561	0.124	0.664	0.156	0.958	1.061	0.677
	Left side	0.103					0.103	0.103	0.103
	Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.534					0.534	0.534	0.534
LTE Band 25_LAT	Front	0.350	0.424	0.141	0.263	0.141	0.774	0.613	0.632
	Back	0.436	0.561	0.124	0.664	0.156	0.997	1.100	0.716
	Left side	0.181					0.181	0.181	0.181
	Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.448					0.448	0.448	0.448
LTE Band 30_LAT	Front	0.389	0.424	0.141	0.263	0.141	0.813	0.652	0.671
	Back	0.689	0.561	0.124	0.664	0.156	1.250	1.353	0.969
	Left side	0.211					0.211	0.211	0.211
	Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.728					0.728	0.728	0.728
LTE Band 7_LAT	Front	0.382	0.424	0.141	0.263	0.141	0.806	0.645	0.664
	Back	0.635	0.561	0.124	0.664	0.156	1.196	1.299	0.915
	Left side	0.180					0.180	0.180	0.180
	Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.705					0.705	0.705	0.705
LTE Band 41_LAT	Front	0.365	0.424	0.141	0.263	0.141	0.789	0.628	0.647
	Back	0.596	0.561	0.124	0.664	0.156	1.157	1.260	0.876
	Left side	0.133					0.133	0.133	0.133
	Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
	Bottom side	0.659					0.659	0.659	0.659



	LTE Band 41(HPUE)_LAT	Front	0.377	0.424	0.141	0.263	0.141	0.801	0.640	0.659
		Back	0.549	0.561	0.124	0.664	0.156	1.110	1.213	0.829
		Left side	0.131					0.131	0.131	0.131
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.568					0.568	0.568	0.568
EN-DC_Ant1	LTE Band 66_Ant1	Front	0.344	0.424	0.141	0.263	0.141	0.768	0.607	0.626
		Back	0.472	0.561	0.124	0.664	0.156	1.033	1.136	0.752
		Left side						0.000	0.000	0.000
		Right side	0.308	0.815	0.126	0.623	0.331	1.123	0.931	0.765
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.371					0.371	0.371	0.371
	LTE Band 7_Ant1	Front	0.398	0.424	0.141	0.263	0.141	0.822	0.661	0.680
		Back	0.226	0.561	0.124	0.664	0.156	0.787	0.890	0.506
		Left side						0.000	0.000	0.000
		Right side	0.150	0.815	0.126	0.623	0.331	0.965	0.773	0.607
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.219					0.219	0.219	0.219



WWAN Band		Exposure Position	1	2	3	4	6	1+4+6 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+3+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_LAT	Front	0.294	0.203	0.066	0.135	0.141	0.570	0.632	0.636
		Back	0.404	0.271	0.058	0.397	0.156	0.957	1.072	1.015
		Left side						0.000	0.000	0.000
		Right side	0.449	0.394	0.061	0.315	0.331	1.095	1.158	1.156
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.235					0.235	0.235	0.235
	GSM1900_LAT	Front	0.430	0.203	0.066	0.135	0.141	0.706	0.768	0.772
		Back	0.546	0.271	0.058	0.397	0.156	1.099	1.214	1.157
		Left side	0.202					0.202	0.202	0.202
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.728					0.728	0.728	0.728
WCDMA	WCDMA V_LAT	Front	0.355	0.203	0.066	0.135	0.141	0.631	0.693	0.697
		Back	0.424	0.271	0.058	0.397	0.156	0.977	1.092	1.035
		Left side						0.000	0.000	0.000
		Right side	0.574	0.394	0.061	0.315	0.331	1.220	1.283	1.281
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.285					0.285	0.285	0.285
	WCDMA IV_LAT	Front	0.334	0.203	0.066	0.135	0.141	0.610	0.672	0.676
		Back	0.487	0.271	0.058	0.397	0.156	1.040	1.155	1.098
		Left side	0.156					0.156	0.156	0.156
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.568					0.568	0.568	0.568
	WCDMA II_LAT	Front	0.337	0.203	0.066	0.135	0.141	0.613	0.675	0.679
		Back	0.462	0.271	0.058	0.397	0.156	1.015	1.130	1.073
		Left side	0.187					0.187	0.187	0.187
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.571					0.571	0.571	0.571
CDMA	CDMA2000 BC10_LAT	Front	0.320	0.203	0.066	0.135	0.141	0.596	0.658	0.662
		Back	0.407	0.271	0.058	0.397	0.156	0.960	1.075	1.018
		Left side						0.000	0.000	0.000
		Right side	0.517	0.394	0.061	0.315	0.331	1.163	1.226	1.224
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.218					0.218	0.218	0.218
	CDMA2000 BC0_LAT	Front	0.360	0.203	0.066	0.135	0.141	0.636	0.698	0.702
		Back	0.455	0.271	0.058	0.397	0.156	1.008	1.123	1.066
		Left side						0.000	0.000	0.000
		Right side	0.531	0.394	0.061	0.315	0.331	1.177	1.240	1.238
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.254					0.254	0.254	0.254
	CDMA2000 BC1_LAT	Front	0.510	0.203	0.066	0.135	0.141	0.786	0.848	0.852
		Back	0.702	0.271	0.058	0.397	0.156	1.255	1.370	1.313
		Left side	0.263					0.263	0.263	0.263
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.819					0.819	0.819	0.819
LTE	LTE Band 71_LAT	Front	0.184	0.203	0.066	0.135	0.141	0.460	0.522	0.526
		Back	0.291	0.271	0.058	0.397	0.156	0.844	0.959	0.902
		Left side						0.000	0.000	0.000
		Right side	0.479	0.394	0.061	0.315	0.331	1.125	1.188	1.186



	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.162					0.162	0.162	0.162
LTE Band 12_LAT	Front	0.185	0.203	0.066	0.135	0.141	0.461	0.523	0.527
	Back	0.232	0.271	0.058	0.397	0.156	0.785	0.900	0.843
	Left side						0.000	0.000	0.000
	Right side	0.359	0.394	0.061	0.315	0.331	1.005	1.068	1.066
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.155					0.155	0.155	0.155
LTE Band 13_LAT	Front	0.261	0.203	0.066	0.135	0.141	0.537	0.599	0.603
	Back	0.360	0.271	0.058	0.397	0.156	0.913	1.028	0.971
	Left side						0.000	0.000	0.000
	Right side	0.454	0.394	0.061	0.315	0.331	1.100	1.163	1.161
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.212					0.212	0.212	0.212
LTE Band 5_LAT	Front	0.405	0.203	0.066	0.135	0.141	0.681	0.743	0.747
	Back	0.521	0.271	0.058	0.397	0.156	1.074	1.189	1.132
	Left side						0.000	0.000	0.000
	Right side	0.567	0.394	0.061	0.315	0.331	1.213	1.276	1.274
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.334					0.334	0.334	0.334
LTE Band 26_LAT	Front	0.292	0.203	0.066	0.135	0.141	0.568	0.630	0.634
	Back	0.371	0.271	0.058	0.397	0.156	0.924	1.039	0.982
	Left side						0.000	0.000	0.000
	Right side	0.491	0.394	0.061	0.315	0.331	1.137	1.200	1.198
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.226					0.226	0.226	0.226
LTE Band 66_LAT	Front	0.251	0.203	0.066	0.135	0.141	0.527	0.589	0.593
	Back	0.397	0.271	0.058	0.397	0.156	0.950	1.065	1.008
	Left side	0.103					0.103	0.103	0.103
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.534					0.534	0.534	0.534
LTE Band 25_LAT	Front	0.350	0.203	0.066	0.135	0.141	0.626	0.688	0.692
	Back	0.436	0.271	0.058	0.397	0.156	0.989	1.104	1.047
	Left side	0.181					0.181	0.181	0.181
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.448					0.448	0.448	0.448
LTE Band 30_LAT	Front	0.389	0.203	0.066	0.135	0.141	0.665	0.727	0.731
	Back	0.689	0.271	0.058	0.397	0.156	1.242	1.357	1.300
	Left side	0.211					0.211	0.211	0.211
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.728					0.728	0.728	0.728
LTE Band 7_LAT	Front	0.382	0.203	0.066	0.135	0.141	0.658	0.720	0.724
	Back	0.635	0.271	0.058	0.397	0.156	1.188	1.303	1.246
	Left side	0.180					0.180	0.180	0.180
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.705					0.705	0.705	0.705
LTE Band 41_LAT	Front	0.365	0.203	0.066	0.135	0.141	0.641	0.703	0.707
	Back	0.596	0.271	0.058	0.397	0.156	1.149	1.264	1.207
	Left side	0.133					0.133	0.133	0.133
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
	Bottom side	0.659					0.659	0.659	0.659

	LTE Band 41(HPUE)_LAT	Front	0.377	0.203	0.066	0.135	0.141	0.653	0.715	0.719
		Back	0.549	0.271	0.058	0.397	0.156	1.102	1.217	1.160
		Left side	0.131					0.131	0.131	0.131
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.568					0.568	0.568	0.568
EN-DC_Ant1	LTE Band 66_Ant1	Front	0.344	0.203	0.066	0.135	0.141	0.620	0.682	0.686
		Back	0.472	0.271	0.058	0.397	0.156	1.025	1.140	1.083
		Left side						0.000	0.000	0.000
		Right side	0.308	0.394	0.061	0.315	0.331	0.954	1.017	1.015
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.371					0.371	0.371	0.371
	LTE Band 7_Ant1	Front	0.398	0.203	0.066	0.135	0.141	0.674	0.736	0.740
		Back	0.226	0.271	0.058	0.397	0.156	0.779	0.894	0.837
		Left side						0.000	0.000	0.000
		Right side	0.150	0.394	0.061	0.315	0.331	0.796	0.859	0.857
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.219					0.219	0.219	0.219





WWAN Band	Exposure Position	1	2	3	4	6	1+6 Summed 1g SAR (W/kg)	3+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)	
		NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)				
UAT	N71_Ant0	Front	0.174	0.424	0.141	0.347	0.141	0.315	0.282	0.488
		Back	0.235	0.561	0.124	0.971	0.156	0.391	0.280	1.127
		Left side	0.131					0.131	0.000	0.000
		Right side	0.117	0.815	0.126	0.810	0.331	0.448	0.457	1.141
		Top side	0.193	0.156	0.203	0.698	0.006	0.199	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N5_Ant0	Front	0.162	0.424	0.141	0.347	0.141	0.303	0.282	0.488
		Back	0.235	0.561	0.124	0.971	0.156	0.391	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.066	0.815	0.126	0.810	0.331	0.397	0.457	1.141
		Top side	0.147	0.156	0.203	0.698	0.006	0.153	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N66_Ant2	Front	0.557	0.424	0.141	0.347	0.141	0.698	0.282	0.488
		Back	0.602	0.561	0.124	0.971	0.156	0.758	0.280	1.127
		Left side	1.155					1.155	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.219	0.156	0.203	0.698	0.006	0.225	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N25_Ant2	Front	0.705	0.424	0.141	0.347	0.141	0.846	0.282	0.488
		Back	0.612	0.561	0.124	0.971	0.156	0.768	0.280	1.127
		Left side	1.135					1.135	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.571	0.156	0.203	0.698	0.006	0.577	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N7_Ant2	Front	0.396	0.424	0.141	0.347	0.141	0.537	0.282	0.488
		Back	0.608	0.561	0.124	0.971	0.156	0.764	0.280	1.127
		Left side	1.045					1.045	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.100	0.156	0.203	0.698	0.006	0.106	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N41_Ant2	Front	0.366	0.424	0.141	0.347	0.141	0.507	0.282	0.488
		Back	0.589	0.561	0.124	0.971	0.156	0.745	0.280	1.127
		Left side	0.995					0.995	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.074	0.156	0.203	0.698	0.006	0.080	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N41(HPUE)_Ant2	Front	0.330	0.424	0.141	0.347	0.141	0.471	0.282	0.488
		Back	0.587	0.561	0.124	0.971	0.156	0.743	0.280	1.127
		Left side	1.016					1.016	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.075	0.156	0.203	0.698	0.006	0.081	0.209	0.704
		Bottom side						0.000	0.000	0.000
N77_Ant7	Front	0.377	0.424	0.141	0.347	0.141	0.518	0.282	0.488	
	Back	0.444	0.561	0.124	0.971	0.156	0.600	0.280	1.127	
	Left side	1.152					1.152	0.000	0.000	
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141	
	Top side	0.118	0.156	0.203	0.698	0.006	0.124	0.209	0.704	
	Bottom side						0.000	0.000	0.000	
LAT	N71_Ant1	Front	0.114	0.424	0.141	0.347	0.141	0.255	0.282	0.488
		Back	0.165	0.561	0.124	0.971	0.156	0.321	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.318	0.815	0.126	0.810	0.331	0.649	0.457	1.141



		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.110					0.110	0.000	0.000
	N5_Ant1	Front	0.212	0.424	0.141	0.347	0.141	0.353	0.282	0.488
		Back	0.300	0.561	0.124	0.971	0.156	0.456	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.308	0.815	0.126	0.810	0.331	0.639	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.154					0.154	0.000	0.000
	N66_Ant3	Front	0.350	0.424	0.141	0.347	0.141	0.491	0.282	0.488
		Back	0.454	0.561	0.124	0.971	0.156	0.610	0.280	1.127
		Left side	0.155					0.155	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.491					0.491	0.000	0.000
	N25_Ant3	Front	0.408	0.424	0.141	0.347	0.141	0.549	0.282	0.488
		Back	0.548	0.561	0.124	0.971	0.156	0.704	0.280	1.127
		Left side	0.278					0.278	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.660					0.660	0.000	0.000
	N7_Ant3	Front	0.353	0.424	0.141	0.347	0.141	0.494	0.282	0.488
		Back	0.643	0.561	0.124	0.971	0.156	0.799	0.280	1.127
		Left side	0.177					0.177	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.705					0.705	0.000	0.000
	N41_Ant3	Front	0.412	0.424	0.141	0.347	0.141	0.553	0.282	0.488
		Back	0.591	0.561	0.124	0.971	0.156	0.747	0.280	1.127
Left side		0.192					0.192	0.000	0.000	
Right side			0.815	0.126	0.810	0.331	0.331	0.457	1.141	
Top side			0.156	0.203	0.698	0.006	0.006	0.209	0.704	
Bottom side		0.654					0.654	0.000	0.000	
N41(HPUE)_Ant3	Front	0.413	0.424	0.141	0.347	0.141	0.554	0.282	0.488	
	Back	0.636	0.561	0.124	0.971	0.156	0.792	0.280	1.127	
	Left side	0.168					0.168	0.000	0.000	
	Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141	
	Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704	
	Bottom side	0.745					0.745	0.000	0.000	
EN-DC_Ant0	N66_Ant0	Front	0.396	0.424	0.141	0.347	0.141	0.537	0.282	0.488
		Back	0.718	0.561	0.124	0.971	0.156	0.874	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.836	0.156	0.203	0.698	0.006	0.842	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N41_Ant0	Front	0.144	0.424	0.141	0.347	0.141	0.285	0.282	0.488
		Back	0.480	0.561	0.124	0.971	0.156	0.636	0.280	1.127
		Left side	0.138					0.138	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.784	0.156	0.203	0.698	0.006	0.790	0.209	0.704
		Bottom side						0.000	0.000	0.000
	N41(HPUE)_Ant0	Front	0.144	0.424	0.141	0.347	0.141	0.285	0.282	0.488
		Back	0.480	0.561	0.124	0.971	0.156	0.636	0.280	1.127
		Left side	0.138					0.138	0.000	0.000
		Right side		0.815	0.126	0.810	0.331	0.331	0.457	1.141
		Top side	0.784	0.156	0.203	0.698	0.006	0.790	0.209	0.704
		Bottom side						0.000	0.000	0.000



EN-DC_Ant0	N66_Ant1	Front	0.189	0.424	0.141	0.347	0.141	0.330	0.282	0.488
		Back	0.222	0.561	0.124	0.971	0.156	0.378	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.175	0.815	0.126	0.810	0.331	0.506	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.181					0.181	0.000	0.000
	N41_Ant1	Front	0.364	0.424	0.141	0.347	0.141	0.505	0.282	0.488
		Back	0.267	0.561	0.124	0.971	0.156	0.423	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.298	0.815	0.126	0.810	0.331	0.629	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.360					0.360	0.000	0.000
	N41(HPUE)_Ant1	Front	0.716	0.424	0.141	0.347	0.141	0.857	0.282	0.488
		Back	0.388	0.561	0.124	0.971	0.156	0.544	0.280	1.127
		Left side						0.000	0.000	0.000
		Right side	0.454	0.815	0.126	0.810	0.331	0.785	0.457	1.141
		Top side		0.156	0.203	0.698	0.006	0.006	0.209	0.704
		Bottom side	0.549					0.549	0.000	0.000

WWAN Band	Exposure Position	1	2	3	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)	
		NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)				
UAT	N71_Ant0	Front	0.174	0.424	0.141	0.263	0.141	0.598	0.437	0.456
		Back	0.235	0.561	0.124	0.664	0.156	0.796	0.899	0.515
		Left side	0.131					0.131	0.131	0.131
		Right side	0.117	0.815	0.126	0.623	0.331	0.932	0.740	0.574
		Top side	0.193	0.156	0.203	0.555	0.006	0.349	0.748	0.402
		Bottom side						0.000	0.000	0.000
	N5_Ant0	Front	0.162	0.424	0.141	0.263	0.141	0.586	0.425	0.444
		Back	0.235	0.561	0.124	0.664	0.156	0.796	0.899	0.515
		Left side						0.000	0.000	0.000
		Right side	0.066	0.815	0.126	0.623	0.331	0.881	0.689	0.523
		Top side	0.147	0.156	0.203	0.555	0.006	0.303	0.702	0.356
		Bottom side						0.000	0.000	0.000
	N66_Ant2	Front	0.557	0.424	0.141	0.263	0.141	0.981	0.820	0.839
		Back	0.602	0.561	0.124	0.664	0.156	1.163	1.266	0.882
		Left side	1.155					1.155	1.155	1.155
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.219	0.156	0.203	0.555	0.006	0.375	0.774	0.428
		Bottom side						0.000	0.000	0.000
	N25_Ant2	Front	0.705	0.424	0.141	0.263	0.141	1.129	0.968	0.987
		Back	0.612	0.561	0.124	0.664	0.156	1.173	1.276	0.892
		Left side	1.135					1.135	1.135	1.135
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.571	0.156	0.203	0.555	0.006	0.727	1.126	0.780
		Bottom side						0.000	0.000	0.000
	N7_Ant2	Front	0.396	0.424	0.141	0.263	0.141	0.820	0.659	0.678
		Back	0.608	0.561	0.124	0.664	0.156	1.169	1.272	0.888
		Left side	1.045					1.045	1.045	1.045
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.100	0.156	0.203	0.555	0.006	0.256	0.655	0.309
		Bottom side						0.000	0.000	0.000
	N41_Ant2	Front	0.366	0.424	0.141	0.263	0.141	0.790	0.629	0.648
		Back	0.589	0.561	0.124	0.664	0.156	1.150	1.253	0.869
		Left side	0.995					0.995	0.995	0.995
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.074	0.156	0.203	0.555	0.006	0.230	0.629	0.283
		Bottom side						0.000	0.000	0.000
	N41(HPUE)_Ant2	Front	0.330	0.424	0.141	0.263	0.141	0.754	0.593	0.612
		Back	0.587	0.561	0.124	0.664	0.156	1.148	1.251	0.867
		Left side	1.016					1.016	1.016	1.016
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457
		Top side	0.075	0.156	0.203	0.555	0.006	0.231	0.630	0.284
		Bottom side						0.000	0.000	0.000
N77_Ant7	Front	0.377	0.424	0.141	0.263	0.141	0.801	0.640	0.659	
	Back	0.444	0.561	0.124	0.664	0.156	1.005	1.108	0.724	
	Left side	1.152					1.152	1.152	1.152	
	Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
	Top side	0.118	0.156	0.203	0.555	0.006	0.274	0.673	0.327	
	Bottom side						0.000	0.000	0.000	
LAT	N71_Ant1	Front	0.114	0.424	0.141	0.263	0.141	0.538	0.377	0.396
		Back	0.165	0.561	0.124	0.664	0.156	0.726	0.829	0.445
		Left side						0.000	0.000	0.000
		Right side	0.318	0.815	0.126	0.623	0.331	1.133	0.941	0.775



		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209	
		Bottom side	0.110						0.110	0.110	0.110
	N5_Ant1		Front	0.212	0.424	0.141	0.263	0.141	0.636	0.475	0.494
			Back	0.300	0.561	0.124	0.664	0.156	0.861	0.964	0.580
		Left side							0.000	0.000	0.000
		Right side	0.308	0.815	0.126	0.623	0.331	1.123	0.931	0.765	
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209	
		Bottom side	0.154						0.154	0.154	0.154
	N66_Ant3		Front	0.350	0.424	0.141	0.263	0.141	0.774	0.613	0.632
			Back	0.454	0.561	0.124	0.664	0.156	1.015	1.118	0.734
		Left side	0.155						0.155	0.155	0.155
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209	
		Bottom side	0.491						0.491	0.491	0.491
	N25_Ant3		Front	0.408	0.424	0.141	0.263	0.141	0.832	0.671	0.690
			Back	0.548	0.561	0.124	0.664	0.156	1.109	1.212	0.828
		Left side	0.278						0.278	0.278	0.278
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209	
		Bottom side	0.660						0.660	0.660	0.660
	N7_Ant3		Front	0.353	0.424	0.141	0.263	0.141	0.777	0.616	0.635
			Back	0.643	0.561	0.124	0.664	0.156	1.204	1.307	0.923
		Left side	0.177						0.177	0.177	0.177
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209	
		Bottom side	0.705						0.705	0.705	0.705
	N41_Ant3		Front	0.412	0.424	0.141	0.263	0.141	0.836	0.675	0.694
Back			0.591	0.561	0.124	0.664	0.156	1.152	1.255	0.871	
Left side		0.192						0.192	0.192	0.192	
Right side			0.815	0.126	0.623	0.331	0.815	0.623	0.457		
Top side			0.156	0.203	0.555	0.006	0.156	0.555	0.209		
Bottom side		0.654						0.654	0.654	0.654	
N41(HPUE)_Ant3		Front	0.413	0.424	0.141	0.263	0.141	0.837	0.676	0.695	
		Back	0.636	0.561	0.124	0.664	0.156	1.197	1.300	0.916	
	Left side	0.168						0.168	0.168	0.168	
	Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457		
	Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209		
	Bottom side	0.745						0.745	0.745	0.745	
EN-DC_Ant0	N66_Ant0		Front	0.396	0.424	0.141	0.263	0.141	0.820	0.659	0.678
			Back	0.718	0.561	0.124	0.664	0.156	1.279	1.382	0.998
		Left side							0.000	0.000	0.000
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.836	0.156	0.203	0.555	0.006	0.992	1.391	1.045	
		Bottom side							0.000	0.000	0.000
	N41_Ant0		Front	0.144	0.424	0.141	0.263	0.141	0.568	0.407	0.426
			Back	0.480	0.561	0.124	0.664	0.156	1.041	1.144	0.760
		Left side	0.138						0.138	0.138	0.138
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.784	0.156	0.203	0.555	0.006	0.940	1.339	0.993	
		Bottom side							0.000	0.000	0.000
	N41(HPUE)_Ant0		Front	0.144	0.424	0.141	0.263	0.141	0.568	0.407	0.426
			Back	0.480	0.561	0.124	0.664	0.156	1.041	1.144	0.760
		Left side	0.138						0.138	0.138	0.138
		Right side		0.815	0.126	0.623	0.331	0.815	0.623	0.457	
		Top side	0.784	0.156	0.203	0.555	0.006	0.940	1.339	0.993	
		Bottom side							0.000	0.000	0.000



EN-DC_Ant0	N66_Ant1	Front	0.189	0.424	0.141	0.263	0.141	0.613	0.452	0.471
		Back	0.222	0.561	0.124	0.664	0.156	0.783	0.886	0.502
		Left side						0.000	0.000	0.000
		Right side	0.175	0.815	0.126	0.623	0.331	0.990	0.798	0.632
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.181					0.181	0.181	0.181
	N41_Ant1	Front	0.364	0.424	0.141	0.263	0.141	0.788	0.627	0.646
		Back	0.267	0.561	0.124	0.664	0.156	0.828	0.931	0.547
		Left side						0.000	0.000	0.000
		Right side	0.298	0.815	0.126	0.623	0.331	1.113	0.921	0.755
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.360					0.360	0.360	0.360
	N41(HPUE)_Ant1	Front	0.716	0.424	0.141	0.263	0.141	1.140	0.979	0.998
		Back	0.388	0.561	0.124	0.664	0.156	0.949	1.052	0.668
		Left side						0.000	0.000	0.000
		Right side	0.454	0.815	0.126	0.623	0.331	1.269	1.077	0.911
		Top side		0.156	0.203	0.555	0.006	0.156	0.555	0.209
		Bottom side	0.549					0.549	0.549	0.549



WWAN Band	Exposure Position	1	2	3	4	6	1+4+6 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+3+4+6 Summed 1g SAR (W/kg)	
		NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)				
UAT	N71_Ant0	Front	0.174	0.203	0.066	0.135	0.141	0.450	0.512	0.516
		Back	0.235	0.271	0.058	0.397	0.156	0.788	0.903	0.846
		Left side	0.131					0.131	0.131	0.131
		Right side	0.117	0.394	0.061	0.315	0.331	0.763	0.826	0.824
		Top side	0.193	0.086	0.096	0.280	0.006	0.479	0.559	0.575
		Bottom side						0.000	0.000	0.000
	N5_Ant0	Front	0.162	0.203	0.066	0.135	0.141	0.438	0.500	0.504
		Back	0.235	0.271	0.058	0.397	0.156	0.788	0.903	0.846
		Left side						0.000	0.000	0.000
		Right side	0.066	0.394	0.061	0.315	0.331	0.712	0.775	0.773
		Top side	0.147	0.086	0.096	0.280	0.006	0.433	0.513	0.529
		Bottom side						0.000	0.000	0.000
	N66_Ant2	Front	0.557	0.203	0.066	0.135	0.141	0.833	0.895	0.899
		Back	0.602	0.271	0.058	0.397	0.156	1.155	1.270	1.213
		Left side	1.155					1.155	1.155	1.155
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.219	0.086	0.096	0.280	0.006	0.505	0.585	0.601
		Bottom side						0.000	0.000	0.000
	N25_Ant2	Front	0.705	0.203	0.066	0.135	0.141	0.981	1.043	1.047
		Back	0.612	0.271	0.058	0.397	0.156	1.165	1.280	1.223
		Left side	1.135					1.135	1.135	1.135
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.571	0.086	0.096	0.280	0.006	0.857	0.937	0.953
		Bottom side						0.000	0.000	0.000
	N7_Ant2	Front	0.396	0.203	0.066	0.135	0.141	0.672	0.734	0.738
		Back	0.608	0.271	0.058	0.397	0.156	1.161	1.276	1.219
		Left side	1.045					1.045	1.045	1.045
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.100	0.086	0.096	0.280	0.006	0.386	0.466	0.482
		Bottom side						0.000	0.000	0.000
N41_Ant2	Front	0.366	0.203	0.066	0.135	0.141	0.642	0.704	0.708	
	Back	0.589	0.271	0.058	0.397	0.156	1.142	1.257	1.200	
	Left side	0.995					0.995	0.995	0.995	
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707	
	Top side	0.074	0.086	0.096	0.280	0.006	0.360	0.440	0.456	
	Bottom side						0.000	0.000	0.000	
N41(HPUE)_Ant2	Front	0.330	0.203	0.066	0.135	0.141	0.606	0.668	0.672	
	Back	0.587	0.271	0.058	0.397	0.156	1.140	1.255	1.198	
	Left side	1.016					1.016	1.016	1.016	
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707	
	Top side	0.075	0.086	0.096	0.280	0.006	0.361	0.441	0.457	
	Bottom side						0.000	0.000	0.000	
N77_Ant7	Front	0.377	0.203	0.066	0.135	0.141	0.653	0.715	0.719	
	Back	0.444	0.271	0.058	0.397	0.156	0.997	1.112	1.055	
	Left side	1.152					1.152	1.152	1.152	
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707	
	Top side	0.118	0.086	0.096	0.280	0.006	0.404	0.484	0.500	
	Bottom side						0.000	0.000	0.000	
LAT	N71_Ant1	Front	0.114	0.203	0.066	0.135	0.141	0.390	0.452	0.456
		Back	0.165	0.271	0.058	0.397	0.156	0.718	0.833	0.776
		Left side						0.000	0.000	0.000
		Right side	0.318	0.394	0.061	0.315	0.331	0.964	1.027	1.025



		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.110						0.110	0.110
	N5_Ant1	Front	0.212	0.203	0.066	0.135	0.141	0.488	0.550	0.554
		Back	0.300	0.271	0.058	0.397	0.156	0.853	0.968	0.911
		Left side						0.000	0.000	0.000
		Right side	0.308	0.394	0.061	0.315	0.331	0.954	1.017	1.015
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.154					0.154	0.154	0.154
	N66_Ant3	Front	0.350	0.203	0.066	0.135	0.141	0.626	0.688	0.692
		Back	0.454	0.271	0.058	0.397	0.156	1.007	1.122	1.065
		Left side	0.155					0.155	0.155	0.155
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.491					0.491	0.491	0.491
	N25_Ant3	Front	0.408	0.203	0.066	0.135	0.141	0.684	0.746	0.750
		Back	0.548	0.271	0.058	0.397	0.156	1.101	1.216	1.159
		Left side	0.278					0.278	0.278	0.278
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.660					0.660	0.660	0.660
	N7_Ant3	Front	0.353	0.203	0.066	0.135	0.141	0.629	0.691	0.695
		Back	0.643	0.271	0.058	0.397	0.156	1.196	1.311	1.254
		Left side	0.177					0.177	0.177	0.177
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.705					0.705	0.705	0.705
	N41_Ant3	Front	0.412	0.203	0.066	0.135	0.141	0.688	0.750	0.754
		Back	0.591	0.271	0.058	0.397	0.156	1.144	1.259	1.202
Left side		0.192					0.192	0.192	0.192	
Right side			0.394	0.061	0.315	0.331	0.646	0.709	0.707	
Top side			0.086	0.096	0.280	0.006	0.286	0.366	0.382	
Bottom side		0.654					0.654	0.654	0.654	
N41(HPUE)_Ant3	Front	0.413	0.203	0.066	0.135	0.141	0.689	0.751	0.755	
	Back	0.636	0.271	0.058	0.397	0.156	1.189	1.304	1.247	
	Left side	0.168					0.168	0.168	0.168	
	Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707	
	Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382	
	Bottom side	0.745					0.745	0.745	0.745	
EN-DC_Ant0	N66_Ant0	Front	0.396	0.203	0.066	0.135	0.141	0.672	0.734	0.738
		Back	0.718	0.271	0.058	0.397	0.156	1.271	1.386	1.329
		Left side						0.000	0.000	0.000
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.836	0.086	0.096	0.280	0.006	1.122	1.202	1.218
		Bottom side						0.000	0.000	0.000
	N41_Ant0	Front	0.144	0.203	0.066	0.135	0.141	0.420	0.482	0.486
		Back	0.480	0.271	0.058	0.397	0.156	1.033	1.148	1.091
		Left side	0.138					0.138	0.138	0.138
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.784	0.086	0.096	0.280	0.006	1.070	1.150	1.166
		Bottom side						0.000	0.000	0.000
	N41(HPUE)_Ant0	Front	0.144	0.203	0.066	0.135	0.141	0.420	0.482	0.486
		Back	0.480	0.271	0.058	0.397	0.156	1.033	1.148	1.091
		Left side	0.138					0.138	0.138	0.138
		Right side		0.394	0.061	0.315	0.331	0.646	0.709	0.707
		Top side	0.784	0.086	0.096	0.280	0.006	1.070	1.150	1.166
		Bottom side						0.000	0.000	0.000





EN-DC_Ant0	N66_Ant1	Front	0.189	0.203	0.066	0.135	0.141	0.465	0.527	0.531
		Back	0.222	0.271	0.058	0.397	0.156	0.775	0.890	0.833
		Left side						0.000	0.000	0.000
		Right side	0.175	0.394	0.061	0.315	0.331	0.821	0.884	0.882
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.181					0.181	0.181	0.181
	N41_Ant1	Front	0.364	0.203	0.066	0.135	0.141	0.640	0.702	0.706
		Back	0.267	0.271	0.058	0.397	0.156	0.820	0.935	0.878
		Left side						0.000	0.000	0.000
		Right side	0.298	0.394	0.061	0.315	0.331	0.944	1.007	1.005
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.360					0.360	0.360	0.360
	N41(HPUE)_Ant1	Front	0.716	0.203	0.066	0.135	0.141	0.992	1.054	1.058
		Back	0.388	0.271	0.058	0.397	0.156	0.941	1.056	0.999
		Left side						0.000	0.000	0.000
		Right side	0.454	0.394	0.061	0.315	0.331	1.100	1.163	1.161
		Top side		0.086	0.096	0.280	0.006	0.286	0.366	0.382
		Bottom side	0.549					0.549	0.549	0.549



**20.4 Body-Worn Accessory Exposure Conditions**

Exposure Position	2	3	4	6	2+4 Summed 1g SAR (W/kg)	3+4+6 Summed 1g SAR (W/kg)
	2.4GHz WLAN Ant 1+2 1g SAR (W/kg)	2.4GHz WLAN Ant 2 1g SAR (W/kg)	5GHz WLAN Ant 1+2 1g SAR (W/kg)	Bluetooth Ant 1 1g SAR (W/kg)		
Front	0.138	0.110	0.263	0.023	0.401	0.396
Back	0.260	0.062	0.480	0.083	0.740	0.625

WWAN Band		Exposure Position	1	2	3	4	6	1+6 Summed 1g SAR (W/kg)	3+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)	2.4GHz WLAN Ant 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	0.143	0.138	0.110	0.263	0.023	0.166	0.133	0.286
		Back	0.259	0.260	0.062	0.703	0.083	0.342	0.145	0.786
	GSM1900_UAT	Front	0.100	0.138	0.110	0.263	0.023	0.123	0.133	0.286
		Back	0.200	0.260	0.062	0.703	0.083	0.283	0.145	0.786
WCDMA	WCDMA V_UAT	Front	0.182	0.138	0.110	0.263	0.023	0.205	0.133	0.286
		Back	0.346	0.260	0.062	0.703	0.083	0.429	0.145	0.786
	WCDMA IV_UAT	Front	0.117	0.138	0.110	0.263	0.023	0.140	0.133	0.286
		Back	0.171	0.260	0.062	0.703	0.083	0.254	0.145	0.786
	WCDMA II_UAT	Front	0.161	0.138	0.110	0.263	0.023	0.184	0.133	0.286
		Back	0.219	0.260	0.062	0.703	0.083	0.302	0.145	0.786
CDMA	CDMA2000 BC10_UAT	Front	0.114	0.138	0.110	0.263	0.023	0.137	0.133	0.286
		Back	0.187	0.260	0.062	0.703	0.083	0.270	0.145	0.786
	CDMA2000 BC0_UAT	Front	0.147	0.138	0.110	0.263	0.023	0.170	0.133	0.286
		Back	0.244	0.260	0.062	0.703	0.083	0.327	0.145	0.786
	CDMA2000 BC1_UAT	Front	0.224	0.138	0.110	0.263	0.023	0.247	0.133	0.286
		Back	0.310	0.260	0.062	0.703	0.083	0.393	0.145	0.786
LTE	LTE Band 71_UAT	Front	0.213	0.138	0.110	0.263	0.023	0.236	0.133	0.286
		Back	0.288	0.260	0.062	0.703	0.083	0.371	0.145	0.786
	LTE Band 12_UAT	Front	0.210	0.138	0.110	0.263	0.023	0.233	0.133	0.286
		Back	0.305	0.260	0.062	0.703	0.083	0.388	0.145	0.786
	LTE Band 13_UAT	Front	0.128	0.138	0.110	0.263	0.023	0.151	0.133	0.286
		Back	0.201	0.260	0.062	0.703	0.083	0.284	0.145	0.786
	LTE Band 5_UAT	Front	0.220	0.138	0.110	0.263	0.023	0.243	0.133	0.286
		Back	0.340	0.260	0.062	0.703	0.083	0.423	0.145	0.786
	LTE Band 26_UAT	Front	0.165	0.138	0.110	0.263	0.023	0.188	0.133	0.286
		Back	0.244	0.260	0.062	0.703	0.083	0.327	0.145	0.786
	LTE Band 66_UAT	Front	0.108	0.138	0.110	0.263	0.023	0.131	0.133	0.286
		Back	0.269	0.260	0.062	0.703	0.083	0.352	0.145	0.786
	LTE Band 25_UAT	Front	0.175	0.138	0.110	0.263	0.023	0.198	0.133	0.286
		Back	0.278	0.260	0.062	0.703	0.083	0.361	0.145	0.786
	LTE Band 30_UAT	Front	0.469	0.138	0.110	0.263	0.023	0.492	0.133	0.286
		Back	0.602	0.260	0.062	0.703	0.083	0.685	0.145	0.786
	LTE Band 7_UAT	Front	0.198	0.138	0.110	0.263	0.023	0.221	0.133	0.286
		Back	0.331	0.260	0.062	0.703	0.083	0.414	0.145	0.786
	LTE Band 41_UAT	Front	0.236	0.138	0.110	0.263	0.023	0.259	0.133	0.286
		Back	0.351	0.260	0.062	0.703	0.083	0.434	0.145	0.786
LTE Band 41(HPUE)_UAT	Front	0.328	0.138	0.110	0.263	0.023	0.351	0.133	0.286	
	Back	0.418	0.260	0.062	0.703	0.083	0.501	0.145	0.786	
LTE Band 48_UAT	Front	0.178	0.138	0.110	0.263	0.023	0.201	0.133	0.286	
	Back	0.417	0.260	0.062	0.703	0.083	0.500	0.145	0.786	
EN-DC_Ant0	LTE Band 66_Ant0	Front	0.245	0.138	0.110	0.263	0.023	0.268	0.133	0.286
		Back	0.668	0.260	0.062	0.703	0.083	0.751	0.145	0.786
	LTE Band 7_Ant0	Front	0.145	0.138	0.110	0.263	0.023	0.168	0.133	0.286
		Back	0.482	0.260	0.062	0.703	0.083	0.565	0.145	0.786



WWAN Band		Exposure Position	1	2	3	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_UAT	Front	0.143	0.138	0.110	0.263	0.023	0.281	0.406	0.276
		Back	0.259	0.260	0.062	0.703	0.083	0.519	0.962	0.404
	GSM1900_UAT	Front	0.100	0.138	0.110	0.263	0.023	0.238	0.363	0.233
		Back	0.200	0.260	0.062	0.703	0.083	0.460	0.903	0.345
WCDMA	WCDMA V_UAT	Front	0.182	0.138	0.110	0.263	0.023	0.320	0.445	0.315
		Back	0.346	0.260	0.062	0.703	0.083	0.606	1.049	0.491
	WCDMA IV_UAT	Front	0.117	0.138	0.110	0.263	0.023	0.255	0.380	0.250
		Back	0.171	0.260	0.062	0.703	0.083	0.431	0.874	0.316
	WCDMA II_UAT	Front	0.161	0.138	0.110	0.263	0.023	0.299	0.424	0.294
		Back	0.219	0.260	0.062	0.703	0.083	0.479	0.922	0.364
CDMA	CDMA2000 BC10_UAT	Front	0.114	0.138	0.110	0.263	0.023	0.252	0.377	0.247
		Back	0.187	0.260	0.062	0.703	0.083	0.447	0.890	0.332
	CDMA2000 BC0_UAT	Front	0.147	0.138	0.110	0.263	0.023	0.285	0.410	0.280
		Back	0.244	0.260	0.062	0.703	0.083	0.504	0.947	0.389
	CDMA2000 BC1_UAT	Front	0.224	0.138	0.110	0.263	0.023	0.362	0.487	0.357
		Back	0.310	0.260	0.062	0.703	0.083	0.570	1.013	0.455
LTE	LTE Band 71_UAT	Front	0.213	0.138	0.110	0.263	0.023	0.351	0.476	0.346
		Back	0.288	0.260	0.062	0.703	0.083	0.548	0.991	0.433
	LTE Band 12_UAT	Front	0.210	0.138	0.110	0.263	0.023	0.348	0.473	0.343
		Back	0.305	0.260	0.062	0.703	0.083	0.565	1.008	0.450
	LTE Band 13_UAT	Front	0.128	0.138	0.110	0.263	0.023	0.266	0.391	0.261
		Back	0.201	0.260	0.062	0.703	0.083	0.461	0.904	0.346
	LTE Band 5_UAT	Front	0.220	0.138	0.110	0.263	0.023	0.358	0.483	0.353
		Back	0.340	0.260	0.062	0.703	0.083	0.600	1.043	0.485
	LTE Band 26_UAT	Front	0.165	0.138	0.110	0.263	0.023	0.303	0.428	0.298
		Back	0.244	0.260	0.062	0.703	0.083	0.504	0.947	0.389
	LTE Band 66_UAT	Front	0.108	0.138	0.110	0.263	0.023	0.246	0.371	0.241
		Back	0.269	0.260	0.062	0.703	0.083	0.529	0.972	0.414
	LTE Band 25_UAT	Front	0.175	0.138	0.110	0.263	0.023	0.313	0.438	0.308
		Back	0.278	0.260	0.062	0.703	0.083	0.538	0.981	0.423
	LTE Band 30_UAT	Front	0.469	0.138	0.110	0.263	0.023	0.607	0.732	0.602
		Back	0.602	0.260	0.062	0.703	0.083	0.862	1.305	0.747
	LTE Band 7_UAT	Front	0.198	0.138	0.110	0.263	0.023	0.336	0.461	0.331
		Back	0.331	0.260	0.062	0.703	0.083	0.591	1.034	0.476
	LTE Band 41_UAT	Front	0.236	0.138	0.110	0.263	0.023	0.374	0.499	0.369
		Back	0.351	0.260	0.062	0.703	0.083	0.611	1.054	0.496
LTE Band 41(HPUE)_UAT	Front	0.328	0.138	0.110	0.263	0.023	0.466	0.591	0.461	
	Back	0.418	0.260	0.062	0.703	0.083	0.678	1.121	0.563	
LTE Band 48_UAT	Front	0.178	0.138	0.110	0.263	0.023	0.316	0.441	0.311	
	Back	0.417	0.260	0.062	0.703	0.083	0.677	1.120	0.562	
EN-DC_Ant0	LTE Band 66_Ant0	Front	0.245	0.138	0.110	0.263	0.023	0.383	0.508	0.378
		Back	0.668	0.260	0.062	0.703	0.083	0.928	1.371	0.813
	LTE Band 7_Ant0	Front	0.145	0.138	0.110	0.263	0.023	0.283	0.408	0.278
		Back	0.482	0.260	0.062	0.703	0.083	0.742	1.185	0.627



WWAN Band		Exposure Position	1	2	3	4	6	1+4+6 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+3+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_UAT	Front	0.143	0.138	0.110	0.171	0.023	0.337	0.452	0.447
		Back	0.259	0.260	0.062	0.359	0.083	0.701	0.878	0.763
	GSM1900_UAT	Front	0.100	0.138	0.110	0.171	0.023	0.294	0.409	0.404
		Back	0.200	0.260	0.062	0.359	0.083	0.642	0.819	0.704
WCDMA	WCDMA V_UAT	Front	0.182	0.138	0.110	0.171	0.023	0.376	0.491	0.486
		Back	0.346	0.260	0.062	0.359	0.083	0.788	0.965	0.850
	WCDMA IV_UAT	Front	0.117	0.138	0.110	0.171	0.023	0.311	0.426	0.421
		Back	0.171	0.260	0.062	0.359	0.083	0.613	0.790	0.675
	WCDMA II_UAT	Front	0.161	0.138	0.110	0.171	0.023	0.355	0.470	0.465
		Back	0.219	0.260	0.062	0.359	0.083	0.661	0.838	0.723
CDMA	CDMA2000 BC10_UAT	Front	0.114	0.138	0.110	0.171	0.023	0.308	0.423	0.418
		Back	0.187	0.260	0.062	0.359	0.083	0.629	0.806	0.691
	CDMA2000 BC0_UAT	Front	0.147	0.138	0.110	0.171	0.023	0.341	0.456	0.451
		Back	0.244	0.260	0.062	0.359	0.083	0.686	0.863	0.748
	CDMA2000 BC1_UAT	Front	0.224	0.138	0.110	0.171	0.023	0.418	0.533	0.528
		Back	0.310	0.260	0.062	0.359	0.083	0.752	0.929	0.814
LTE	LTE Band 71_UAT	Front	0.213	0.138	0.110	0.171	0.023	0.407	0.522	0.517
		Back	0.288	0.260	0.062	0.359	0.083	0.730	0.907	0.792
	LTE Band 12_UAT	Front	0.210	0.138	0.110	0.171	0.023	0.404	0.519	0.514
		Back	0.305	0.260	0.062	0.359	0.083	0.747	0.924	0.809
	LTE Band 13_UAT	Front	0.128	0.138	0.110	0.171	0.023	0.322	0.437	0.432
		Back	0.201	0.260	0.062	0.359	0.083	0.643	0.820	0.705
	LTE Band 5_UAT	Front	0.220	0.138	0.110	0.171	0.023	0.414	0.529	0.524
		Back	0.340	0.260	0.062	0.359	0.083	0.782	0.959	0.844
	LTE Band 26_UAT	Front	0.165	0.138	0.110	0.171	0.023	0.359	0.474	0.469
		Back	0.244	0.260	0.062	0.359	0.083	0.686	0.863	0.748
	LTE Band 66_UAT	Front	0.108	0.138	0.110	0.171	0.023	0.302	0.417	0.412
		Back	0.269	0.260	0.062	0.359	0.083	0.711	0.888	0.773
	LTE Band 25_UAT	Front	0.175	0.138	0.110	0.171	0.023	0.369	0.484	0.479
		Back	0.278	0.260	0.062	0.359	0.083	0.720	0.897	0.782
	LTE Band 30_UAT	Front	0.469	0.138	0.110	0.171	0.023	0.663	0.778	0.773
		Back	0.602	0.260	0.062	0.359	0.083	1.044	1.221	1.106
	LTE Band 7_UAT	Front	0.198	0.138	0.110	0.171	0.023	0.392	0.507	0.502
		Back	0.331	0.260	0.062	0.359	0.083	0.773	0.950	0.835
	LTE Band 41_UAT	Front	0.236	0.138	0.110	0.171	0.023	0.430	0.545	0.540
		Back	0.351	0.260	0.062	0.359	0.083	0.793	0.970	0.855
LTE Band 41(HPUE)_UAT	Front	0.328	0.138	0.110	0.171	0.023	0.522	0.637	0.632	
	Back	0.418	0.260	0.062	0.359	0.083	0.860	1.037	0.922	
LTE Band 48_UAT	Front	0.178	0.138	0.110	0.171	0.023	0.372	0.487	0.482	
	Back	0.417	0.260	0.062	0.359	0.083	0.859	1.036	0.921	
EN-DC_Ant0	LTE Band 66_Ant0	Front	0.245	0.138	0.110	0.171	0.023	0.439	0.554	0.549
		Back	0.668	0.260	0.062	0.359	0.083	1.110	1.287	1.172
	LTE Band 7_Ant0	Front	0.145	0.138	0.110	0.171	0.023	0.339	0.454	0.449
		Back	0.482	0.260	0.062	0.359	0.083	0.924	1.101	0.986



WWAN Band		Exposure Position	1	2	3	4	6	1+6 Summed 1g SAR (W/kg)	3+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_LAT	Front	0.169	0.138	0.110	0.263	0.023	0.192	0.133	0.286
		Back	0.206	0.260	0.062	0.703	0.083	0.289	0.145	0.786
	GSM1900_LAT	Front	0.207	0.138	0.110	0.263	0.023	0.230	0.133	0.286
		Back	0.304	0.260	0.062	0.703	0.083	0.387	0.145	0.786
WCDMA	WCDMA V_LAT	Front	0.169	0.138	0.110	0.263	0.023	0.192	0.133	0.286
		Back	0.253	0.260	0.062	0.703	0.083	0.336	0.145	0.786
	WCDMA IV_LAT	Front	0.434	0.138	0.110	0.263	0.023	0.457	0.133	0.286
		Back	0.548	0.260	0.062	0.703	0.083	0.631	0.145	0.786
	WCDMA II_LAT	Front	0.497	0.138	0.110	0.263	0.023	0.520	0.133	0.286
		Back	0.607	0.260	0.062	0.703	0.083	0.690	0.145	0.786
CDMA	CDMA2000 BC10_LAT	Front	0.192	0.138	0.110	0.263	0.023	0.215	0.133	0.286
		Back	0.234	0.260	0.062	0.703	0.083	0.317	0.145	0.786
	CDMA2000 BC0_LAT	Front	0.181	0.138	0.110	0.263	0.023	0.204	0.133	0.286
		Back	0.268	0.260	0.062	0.703	0.083	0.351	0.145	0.786
	CDMA2000 BC1_LAT	Front	0.218	0.138	0.110	0.263	0.023	0.241	0.133	0.286
		Back	0.444	0.260	0.062	0.703	0.083	0.527	0.145	0.786
LTE	LTE Band 71_LAT	Front	0.159	0.138	0.110	0.263	0.023	0.182	0.133	0.286
		Back	0.182	0.260	0.062	0.703	0.083	0.265	0.145	0.786
	LTE Band 12_LAT	Front	0.199	0.138	0.110	0.263	0.023	0.222	0.133	0.286
		Back	0.216	0.260	0.062	0.703	0.083	0.299	0.145	0.786
	LTE Band 13_LAT	Front	0.168	0.138	0.110	0.263	0.023	0.191	0.133	0.286
		Back	0.175	0.260	0.062	0.703	0.083	0.258	0.145	0.786
	LTE Band 5_LAT	Front	0.225	0.138	0.110	0.263	0.023	0.248	0.133	0.286
		Back	0.289	0.260	0.062	0.703	0.083	0.372	0.145	0.786
	LTE Band 26_LAT	Front	0.174	0.138	0.110	0.263	0.023	0.197	0.133	0.286
		Back	0.232	0.260	0.062	0.703	0.083	0.315	0.145	0.786
	LTE Band 66_LAT	Front	0.427	0.138	0.110	0.263	0.023	0.450	0.133	0.286
		Back	0.468	0.260	0.062	0.703	0.083	0.551	0.145	0.786
	LTE Band 25_LAT	Front	0.463	0.138	0.110	0.263	0.023	0.486	0.133	0.286
		Back	0.507	0.260	0.062	0.703	0.083	0.590	0.145	0.786
	LTE Band 30_LAT	Front	0.559	0.138	0.110	0.263	0.023	0.582	0.133	0.286
		Back	0.660	0.260	0.062	0.703	0.083	0.743	0.145	0.786
	LTE Band 7_LAT	Front	0.557	0.138	0.110	0.263	0.023	0.580	0.133	0.286
		Back	0.609	0.260	0.062	0.703	0.083	0.692	0.145	0.786
	LTE Band 41_LAT	Front	0.303	0.138	0.110	0.263	0.023	0.326	0.133	0.286
		Back	0.348	0.260	0.062	0.703	0.083	0.431	0.145	0.786
LTE Band 41(HPUE)_LAT	Front	0.318	0.138	0.110	0.263	0.023	0.341	0.133	0.286	
	Back	0.374	0.260	0.062	0.703	0.083	0.457	0.145	0.786	
EN-DC_Ant1	LTE Band 66_Ant1	Front	0.201	0.138	0.110	0.263	0.023	0.224	0.133	0.286
		Back	0.238	0.260	0.062	0.703	0.083	0.321	0.145	0.786
	LTE Band 7_Ant1	Front	0.188	0.138	0.110	0.263	0.023	0.211	0.133	0.286
		Back	0.080	0.260	0.062	0.703	0.083	0.163	0.145	0.786



WWAN Band		Exposure Position	1	2	3	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_LAT	Front	0.169	0.138	0.110	0.263	0.023	0.307	0.432	0.302
		Back	0.206	0.260	0.062	0.703	0.083	0.466	0.909	0.351
	GSM1900_LAT	Front	0.207	0.138	0.110	0.263	0.023	0.345	0.470	0.340
		Back	0.304	0.260	0.062	0.703	0.083	0.564	1.007	0.449
WCDMA	WCDMA V_LAT	Front	0.169	0.138	0.110	0.263	0.023	0.307	0.432	0.302
		Back	0.253	0.260	0.062	0.703	0.083	0.513	0.956	0.398
	WCDMA IV_LAT	Front	0.434	0.138	0.110	0.263	0.023	0.572	0.697	0.567
		Back	0.548	0.260	0.062	0.703	0.083	0.808	1.251	0.693
	WCDMA II_LAT	Front	0.497	0.138	0.110	0.263	0.023	0.635	0.760	0.630
		Back	0.607	0.260	0.062	0.703	0.083	0.867	1.310	0.752
CDMA	CDMA2000 BC10_LAT	Front	0.192	0.138	0.110	0.263	0.023	0.330	0.455	0.325
		Back	0.234	0.260	0.062	0.703	0.083	0.494	0.937	0.379
	CDMA2000 BC0_LAT	Front	0.181	0.138	0.110	0.263	0.023	0.319	0.444	0.314
		Back	0.268	0.260	0.062	0.703	0.083	0.528	0.971	0.413
	CDMA2000 BC1_LAT	Front	0.218	0.138	0.110	0.263	0.023	0.356	0.481	0.351
		Back	0.444	0.260	0.062	0.703	0.083	0.704	1.147	0.589
LTE	LTE Band 71_LAT	Front	0.159	0.138	0.110	0.263	0.023	0.297	0.422	0.292
		Back	0.182	0.260	0.062	0.703	0.083	0.442	0.885	0.327
	LTE Band 12_LAT	Front	0.199	0.138	0.110	0.263	0.023	0.337	0.462	0.332
		Back	0.216	0.260	0.062	0.703	0.083	0.476	0.919	0.361
	LTE Band 13_LAT	Front	0.168	0.138	0.110	0.263	0.023	0.306	0.431	0.301
		Back	0.175	0.260	0.062	0.703	0.083	0.435	0.878	0.320
	LTE Band 5_LAT	Front	0.225	0.138	0.110	0.263	0.023	0.363	0.488	0.358
		Back	0.289	0.260	0.062	0.703	0.083	0.549	0.992	0.434
	LTE Band 26_LAT	Front	0.174	0.138	0.110	0.263	0.023	0.312	0.437	0.307
		Back	0.232	0.260	0.062	0.703	0.083	0.492	0.935	0.377
	LTE Band 66_LAT	Front	0.427	0.138	0.110	0.263	0.023	0.565	0.690	0.560
		Back	0.468	0.260	0.062	0.703	0.083	0.728	1.171	0.613
	LTE Band 25_LAT	Front	0.463	0.138	0.110	0.263	0.023	0.601	0.726	0.596
		Back	0.507	0.260	0.062	0.703	0.083	0.767	1.210	0.652
	LTE Band 30_LAT	Front	0.559	0.138	0.110	0.263	0.023	0.697	0.822	0.692
		Back	0.660	0.260	0.062	0.703	0.083	0.920	1.363	0.805
	LTE Band 7_LAT	Front	0.557	0.138	0.110	0.263	0.023	0.695	0.820	0.690
		Back	0.609	0.260	0.062	0.703	0.083	0.869	1.312	0.754
LTE Band 41_LAT	Front	0.303	0.138	0.110	0.263	0.023	0.441	0.566	0.436	
	Back	0.348	0.260	0.062	0.703	0.083	0.608	1.051	0.493	
LTE Band 41(HPUE)_LAT	Front	0.318	0.138	0.110	0.263	0.023	0.456	0.581	0.451	
	Back	0.374	0.260	0.062	0.703	0.083	0.634	1.077	0.519	
EN-DC_Ant1	LTE Band 66_Ant1	Front	0.201	0.138	0.110	0.263	0.023	0.339	0.464	0.334
		Back	0.238	0.260	0.062	0.703	0.083	0.498	0.941	0.383
	LTE Band 7_Ant1	Front	0.188	0.138	0.110	0.263	0.023	0.326	0.451	0.321
		Back	0.080	0.260	0.062	0.703	0.083	0.340	0.783	0.225



**FCC SAR TEST REPORT**

Report No. : FA002801-07

WWAN Band		Exposure Position	1	2	3	4	6	1+4+6 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+3+4+6 Summed 1g SAR (W/kg)
			WWAN	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
GSM	GSM850_LAT	Front	0.169	0.138	0.110	0.171	0.023	0.363	0.478	0.473
		Back	0.206	0.260	0.062	0.359	0.083	0.648	0.825	0.710
	GSM1900_LAT	Front	0.207	0.138	0.110	0.171	0.023	0.401	0.516	0.511
		Back	0.304	0.260	0.062	0.359	0.083	0.746	0.923	0.808
WCDMA	WCDMA V_LAT	Front	0.169	0.138	0.110	0.171	0.023	0.363	0.478	0.473
		Back	0.253	0.260	0.062	0.359	0.083	0.695	0.872	0.757
	WCDMA IV_LAT	Front	0.434	0.138	0.110	0.171	0.023	0.628	0.743	0.738
		Back	0.548	0.260	0.062	0.359	0.083	0.990	1.167	1.052
	WCDMA II_LAT	Front	0.497	0.138	0.110	0.171	0.023	0.691	0.806	0.801
		Back	0.607	0.260	0.062	0.359	0.083	1.049	1.226	1.111
CDMA	CDMA2000 BC10_LAT	Front	0.192	0.138	0.110	0.171	0.023	0.386	0.501	0.496
		Back	0.234	0.260	0.062	0.359	0.083	0.676	0.853	0.738
	CDMA2000 BC0_LAT	Front	0.181	0.138	0.110	0.171	0.023	0.375	0.490	0.485
		Back	0.268	0.260	0.062	0.359	0.083	0.710	0.887	0.772
	CDMA2000 BC1_LAT	Front	0.218	0.138	0.110	0.171	0.023	0.412	0.527	0.522
		Back	0.444	0.260	0.062	0.359	0.083	0.886	1.063	0.948
LTE	LTE Band 71_LAT	Front	0.159	0.138	0.110	0.171	0.023	0.353	0.468	0.463
		Back	0.182	0.260	0.062	0.359	0.083	0.624	0.801	0.686
	LTE Band 12_LAT	Front	0.199	0.138	0.110	0.171	0.023	0.393	0.508	0.503
		Back	0.216	0.260	0.062	0.359	0.083	0.658	0.835	0.720
	LTE Band 13_LAT	Front	0.168	0.138	0.110	0.171	0.023	0.362	0.477	0.472
		Back	0.175	0.260	0.062	0.359	0.083	0.617	0.794	0.679
	LTE Band 5_LAT	Front	0.225	0.138	0.110	0.171	0.023	0.419	0.534	0.529
		Back	0.289	0.260	0.062	0.359	0.083	0.731	0.908	0.793
	LTE Band 26_LAT	Front	0.174	0.138	0.110	0.171	0.023	0.368	0.483	0.478
		Back	0.232	0.260	0.062	0.359	0.083	0.674	0.851	0.736
	LTE Band 66_LAT	Front	0.427	0.138	0.110	0.171	0.023	0.621	0.736	0.731
		Back	0.468	0.260	0.062	0.359	0.083	0.910	1.087	0.972
	LTE Band 25_LAT	Front	0.463	0.138	0.110	0.171	0.023	0.657	0.772	0.767
		Back	0.507	0.260	0.062	0.359	0.083	0.949	1.126	1.011
	LTE Band 30_LAT	Front	0.559	0.138	0.110	0.171	0.023	0.753	0.868	0.863
		Back	0.660	0.260	0.062	0.359	0.083	1.102	1.279	1.164
	LTE Band 7_LAT	Front	0.557	0.138	0.110	0.171	0.023	0.751	0.866	0.861
		Back	0.609	0.260	0.062	0.359	0.083	1.051	1.228	1.113
	LTE Band 41_LAT	Front	0.303	0.138	0.110	0.171	0.023	0.497	0.612	0.607
		Back	0.348	0.260	0.062	0.359	0.083	0.790	0.967	0.852
LTE Band 41(HPUE)_LAT	Front	0.318	0.138	0.110	0.171	0.023	0.512	0.627	0.622	
	Back	0.374	0.260	0.062	0.359	0.083	0.816	0.993	0.878	
EN-DC_Ant1	LTE Band 66_Ant1	Front	0.201	0.138	0.110	0.171	0.023	0.395	0.510	0.505
		Back	0.238	0.260	0.062	0.359	0.083	0.680	0.857	0.742
	LTE Band 7_Ant1	Front	0.188	0.138	0.110	0.171	0.023	0.382	0.497	0.492
		Back	0.080	0.260	0.062	0.359	0.083	0.522	0.699	0.584



WWAN Band		Exposure Position	1	2	3	4	6	1+6 Summed 1g SAR (W/kg)	3+6 Summed 1g SAR (W/kg)	4+6 Summed 1g SAR (W/kg)
			NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
UAT	N71_Ant0	Front	0.135	0.138	0.110	0.263	0.023	0.158	0.133	0.286
		Back	0.197	0.260	0.062	0.703	0.083	0.280	0.145	0.786
	N5_Ant0	Front	0.089	0.138	0.110	0.263	0.023	0.112	0.133	0.286
		Back	0.139	0.260	0.062	0.703	0.083	0.222	0.145	0.786
	N66_Ant2	Front	0.182	0.138	0.110	0.263	0.023	0.205	0.133	0.286
		Back	0.325	0.260	0.062	0.703	0.083	0.408	0.145	0.786
	N25_Ant2	Front	0.365	0.138	0.110	0.263	0.023	0.388	0.133	0.286
		Back	0.496	0.260	0.062	0.703	0.083	0.579	0.145	0.786
	N7_Ant2	Front	0.268	0.138	0.110	0.263	0.023	0.291	0.133	0.286
		Back	0.307	0.260	0.062	0.703	0.083	0.390	0.145	0.786
	N41_Ant2	Front	0.228	0.138	0.110	0.263	0.023	0.251	0.133	0.286
		Back	0.340	0.260	0.062	0.703	0.083	0.423	0.145	0.786
	N41(HPUE)_Ant2	Front	0.265	0.138	0.110	0.263	0.023	0.288	0.133	0.286
		Back	0.410	0.260	0.062	0.703	0.083	0.493	0.145	0.786
N77_Ant7	Front	0.368	0.138	0.110	0.263	0.023	0.391	0.133	0.286	
	Back	0.494	0.260	0.062	0.703	0.083	0.577	0.145	0.786	
LAT	N71_Ant1	Front	0.086	0.138	0.110	0.263	0.023	0.109	0.133	0.286
		Back	0.101	0.260	0.062	0.703	0.083	0.184	0.145	0.786
	N5_Ant1	Front	0.162	0.138	0.110	0.263	0.023	0.185	0.133	0.286
		Back	0.194	0.260	0.062	0.703	0.083	0.277	0.145	0.786
	N66_Ant3	Front	0.499	0.138	0.110	0.263	0.023	0.522	0.133	0.286
		Back	0.595	0.260	0.062	0.703	0.083	0.678	0.145	0.786
	N25_Ant3	Front	0.468	0.138	0.110	0.263	0.023	0.491	0.133	0.286
		Back	0.624	0.260	0.062	0.703	0.083	0.707	0.145	0.786
	N7_Ant3	Front	0.483	0.138	0.110	0.263	0.023	0.506	0.133	0.286
		Back	0.595	0.260	0.062	0.703	0.083	0.678	0.145	0.786
	N41_Ant3	Front	0.488	0.138	0.110	0.263	0.023	0.511	0.133	0.286
		Back	0.611	0.260	0.062	0.703	0.083	0.694	0.145	0.786
	N41(HPUE)_Ant3	Front	0.689	0.138	0.110	0.263	0.023	0.712	0.133	0.286
		Back	0.777	0.260	0.062	0.703	0.083	0.860	0.145	0.786
EN-DC_Ant0	N66_Ant0	Front	0.409	0.138	0.110	0.263	0.023	0.432	0.133	0.286
		Back	0.618	0.260	0.062	0.703	0.083	0.701	0.145	0.786
	N41_Ant0	Front	0.227	0.138	0.110	0.263	0.023	0.250	0.133	0.286
		Back	0.658	0.260	0.062	0.703	0.083	0.741	0.145	0.786
	N41(HPUE)_Ant0	Front	0.191	0.138	0.110	0.263	0.023	0.214	0.133	0.286
		Back	0.662	0.260	0.062	0.703	0.083	0.745	0.145	0.786
EN-DC_Ant1	N66_Ant1	Front	0.092	0.138	0.110	0.263	0.023	0.115	0.133	0.286
		Back	0.121	0.260	0.062	0.703	0.083	0.204	0.145	0.786
	N41_Ant1	Front	0.171	0.138	0.110	0.263	0.023	0.194	0.133	0.286
		Back	0.113	0.260	0.062	0.703	0.083	0.196	0.145	0.786
	N41(HPUE)_Ant1	Front	0.276	0.138	0.110	0.263	0.023	0.299	0.133	0.286
		Back	0.179	0.260	0.062	0.703	0.083	0.262	0.145	0.786



WWAN Band		Exposure Position	1	2	3	4	6	1+2 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)	1+3+6 Summed 1g SAR (W/kg)
			NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
UAT	N71_Ant0	Front	0.135	0.138	0.110	0.263	0.023	0.273	0.398	0.268
		Back	0.197	0.260	0.062	0.703	0.083	0.457	0.900	0.342
	N5_Ant0	Front	0.089	0.138	0.110	0.263	0.023	0.227	0.352	0.222
		Back	0.139	0.260	0.062	0.703	0.083	0.399	0.842	0.284
	N66_Ant2	Front	0.182	0.138	0.110	0.263	0.023	0.320	0.445	0.315
		Back	0.325	0.260	0.062	0.703	0.083	0.585	1.028	0.470
	N25_Ant2	Front	0.365	0.138	0.110	0.263	0.023	0.503	0.628	0.498
		Back	0.496	0.260	0.062	0.703	0.083	0.756	1.199	0.641
	N7_Ant2	Front	0.268	0.138	0.110	0.263	0.023	0.406	0.531	0.401
		Back	0.307	0.260	0.062	0.703	0.083	0.567	1.010	0.452
	N41_Ant2	Front	0.228	0.138	0.110	0.263	0.023	0.366	0.491	0.361
		Back	0.340	0.260	0.062	0.703	0.083	0.600	1.043	0.485
	N41(HPUE)_Ant2	Front	0.265	0.138	0.110	0.263	0.023	0.403	0.528	0.398
		Back	0.410	0.260	0.062	0.703	0.083	0.670	1.113	0.555
N77_Ant7	Front	0.368	0.138	0.110	0.263	0.023	0.506	0.631	0.501	
	Back	0.494	0.260	0.062	0.703	0.083	0.754	1.197	0.639	
LAT	N71_Ant1	Front	0.086	0.138	0.110	0.263	0.023	0.224	0.349	0.219
		Back	0.101	0.260	0.062	0.703	0.083	0.361	0.804	0.246
	N5_Ant1	Front	0.162	0.138	0.110	0.263	0.023	0.300	0.425	0.295
		Back	0.194	0.260	0.062	0.703	0.083	0.454	0.897	0.339
	N66_Ant3	Front	0.499	0.138	0.110	0.263	0.023	0.637	0.762	0.632
		Back	0.595	0.260	0.062	0.703	0.083	0.855	1.298	0.740
	N25_Ant3	Front	0.468	0.138	0.110	0.263	0.023	0.606	0.731	0.601
		Back	0.624	0.260	0.062	0.703	0.083	0.884	1.327	0.769
	N7_Ant3	Front	0.483	0.138	0.110	0.263	0.023	0.621	0.746	0.616
		Back	0.595	0.260	0.062	0.703	0.083	0.855	1.298	0.740
	N41_Ant3	Front	0.488	0.138	0.110	0.263	0.023	0.626	0.751	0.621
		Back	0.611	0.260	0.062	0.703	0.083	0.871	1.314	0.756
	N41(HPUE)_Ant3	Front	0.689	0.138	0.110	0.263	0.023	0.827	0.952	0.822
		Back	0.777	0.260	0.062	0.703	0.083	1.037	1.480	0.922
EN-DC_Ant0	N66_Ant0	Front	0.409	0.138	0.110	0.263	0.023	0.547	0.672	0.542
		Back	0.618	0.260	0.062	0.703	0.083	0.878	1.321	0.763
	N41_Ant0	Front	0.227	0.138	0.110	0.263	0.023	0.365	0.490	0.360
		Back	0.658	0.260	0.062	0.703	0.083	0.918	1.361	0.803
	N41(HPUE)_Ant0	Front	0.191	0.138	0.110	0.263	0.023	0.329	0.454	0.324
		Back	0.662	0.260	0.062	0.703	0.083	0.922	1.365	0.807
EN-DC_Ant1	N66_Ant1	Front	0.092	0.138	0.110	0.263	0.023	0.230	0.355	0.225
		Back	0.121	0.260	0.062	0.703	0.083	0.381	0.824	0.266
	N41_Ant1	Front	0.171	0.138	0.110	0.263	0.023	0.309	0.434	0.304
		Back	0.113	0.260	0.062	0.703	0.083	0.373	0.816	0.258
	N41(HPUE)_Ant1	Front	0.276	0.138	0.110	0.263	0.023	0.414	0.539	0.409
		Back	0.179	0.260	0.062	0.703	0.083	0.439	0.882	0.324

WWAN Band		Exposure Position	1	2	3	4	6	1+4+6 Summed 1g SAR (W/kg)	1+2+4 Summed 1g SAR (W/kg)	1+3+4+6 Summed 1g SAR (W/kg)
			NR	2.4GHz WLAN Ant 1+2	2.4GHz WLAN Ant 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)	1g SAR (W/kg)			
UAT	N71_Ant0	Front	0.135	0.138	0.110	0.171	0.023	0.329	0.444	0.439
		Back	0.197	0.260	0.062	0.359	0.083	0.639	0.816	0.701
	N5_Ant0	Front	0.089	0.138	0.110	0.171	0.023	0.283	0.398	0.393
		Back	0.139	0.260	0.062	0.359	0.083	0.581	0.758	0.643
	N66_Ant2	Front	0.182	0.138	0.110	0.171	0.023	0.376	0.491	0.486
		Back	0.325	0.260	0.062	0.359	0.083	0.767	0.944	0.829
	N25_Ant2	Front	0.365	0.138	0.110	0.171	0.023	0.559	0.674	0.669
		Back	0.496	0.260	0.062	0.359	0.083	0.938	1.115	1.000
	N7_Ant2	Front	0.268	0.138	0.110	0.171	0.023	0.462	0.577	0.572
		Back	0.307	0.260	0.062	0.359	0.083	0.749	0.926	0.811
	N41_Ant2	Front	0.228	0.138	0.110	0.171	0.023	0.422	0.537	0.532
		Back	0.340	0.260	0.062	0.359	0.083	0.782	0.959	0.844
	N41(HPUE)_Ant2	Front	0.265	0.138	0.110	0.171	0.023	0.459	0.574	0.569
		Back	0.410	0.260	0.062	0.359	0.083	0.852	1.029	0.914
N77_Ant7	Front	0.368	0.138	0.110	0.171	0.023	0.562	0.677	0.672	
	Back	0.494	0.260	0.062	0.359	0.083	0.936	1.113	0.998	
LAT	N71_Ant1	Front	0.086	0.138	0.110	0.171	0.023	0.280	0.395	0.390
		Back	0.101	0.260	0.062	0.359	0.083	0.543	0.720	0.605
	N5_Ant1	Front	0.162	0.138	0.110	0.171	0.023	0.356	0.471	0.466
		Back	0.194	0.260	0.062	0.359	0.083	0.636	0.813	0.698
	N66_Ant3	Front	0.499	0.138	0.110	0.171	0.023	0.693	0.808	0.803
		Back	0.595	0.260	0.062	0.359	0.083	1.037	1.214	1.099
	N25_Ant3	Front	0.468	0.138	0.110	0.171	0.023	0.662	0.777	0.772
		Back	0.624	0.260	0.062	0.359	0.083	1.066	1.243	1.128
	N7_Ant3	Front	0.483	0.138	0.110	0.171	0.023	0.677	0.792	0.787
		Back	0.595	0.260	0.062	0.359	0.083	1.037	1.214	1.099
	N41_Ant3	Front	0.488	0.138	0.110	0.171	0.023	0.682	0.797	0.792
		Back	0.611	0.260	0.062	0.359	0.083	1.053	1.230	1.115
	N41(HPUE)_Ant3	Front	0.689	0.138	0.110	0.171	0.023	0.883	0.998	0.993
		Back	0.777	0.260	0.062	0.359	0.083	1.219	1.396	1.281
EN-DC_Ant0	N66_Ant0	Front	0.409	0.138	0.110	0.171	0.023	0.603	0.718	0.713
		Back	0.618	0.260	0.062	0.359	0.083	1.060	1.237	1.122
	N41_Ant0	Front	0.227	0.138	0.110	0.171	0.023	0.421	0.536	0.531
		Back	0.658	0.260	0.062	0.359	0.083	1.100	1.277	1.162
	N41(HPUE)_Ant0	Front	0.191	0.138	0.110	0.171	0.023	0.385	0.500	0.495
		Back	0.662	0.260	0.062	0.359	0.083	1.104	1.281	1.166
EN-DC_Ant1	N66_Ant1	Front	0.092	0.138	0.110	0.171	0.023	0.286	0.401	0.396
		Back	0.121	0.260	0.062	0.359	0.083	0.563	0.740	0.625
	N41_Ant1	Front	0.171	0.138	0.110	0.171	0.023	0.365	0.480	0.475
		Back	0.113	0.260	0.062	0.359	0.083	0.555	0.732	0.617
	N41(HPUE)_Ant1	Front	0.276	0.138	0.110	0.171	0.023	0.470	0.585	0.580
		Back	0.179	0.260	0.062	0.359	0.083	0.621	0.798	0.683



**20.5 Product Specific Exposure Conditions**

WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
LTE	LTE Band 30_UAT	Front		1.057	1.057
		Back	1.695	1.069	2.764
		Left side	2.770		2.770
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	LTE Band 7_UAT	Front	1.519	1.057	2.576
		Back	1.231	1.069	2.300
		Left side	2.410		2.410
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	LTE Band 41_UAT	Front		1.057	1.057
		Back		1.069	1.069
		Left side	2.208		2.208
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	LTE Band 41(HPUE)_UAT	Front		1.057	1.057
		Back		1.069	1.069
		Left side	2.252		2.252
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
LTE Band 48_UAT	Front		1.057	1.057	
	Back		1.069	1.069	
	Left side	2.562		2.562	
	Right side		1.158	1.158	
	Top side		1.001	1.001	
	Bottom side			0.000	
EN-DC_Ant0	LTE Band 66_Ant0	Front		1.057	1.057
		Back	1.260	1.069	2.329
		Left side			0.000
		Right side		1.158	1.158
		Top side	2.179	1.001	3.180
		Bottom side			0.000
	LTE Band 7_Ant0	Front		1.057	1.057
		Back	1.485	1.069	2.554
		Left side			0.000
		Right side		1.158	1.158
		Top side	2.184	1.001	3.185
		Bottom side			0.000



WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
LTE	LTE Band 30_UAT	Front		0.734	0.734
		Back	1.695	1.069	2.764
		Left side	2.770		2.770
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	LTE Band 7_UAT	Front	1.519	0.734	2.253
		Back	1.231	1.069	2.300
		Left side	2.410		2.410
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	LTE Band 41_UAT	Front		0.734	0.734
		Back		1.069	1.069
		Left side	2.208		2.208
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	LTE Band 41(HPUE)_UAT	Front		0.734	0.734
		Back		1.069	1.069
		Left side	2.252		2.252
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
LTE Band 48_UAT	Front		0.734	0.734	
	Back		1.069	1.069	
	Left side	2.562		2.562	
	Right side		0.897	0.897	
	Top side		0.641	0.641	
	Bottom side			0.000	
EN-DC_Ant0	LTE Band 66_Ant0	Front		0.734	0.734
		Back	1.260	1.069	2.329
		Left side			0.000
		Right side		0.897	0.897
		Top side	2.179	0.641	2.820
		Bottom side			0.000
	LTE Band 7_Ant0	Front		0.734	0.734
		Back	1.485	1.069	2.554
		Left side			0.000
		Right side		0.897	0.897
		Top side	2.184	0.641	2.825
		Bottom side			0.000



WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
WCDMA	WCDMA IV_LAT	Front		1.057	1.057
		Back		1.069	1.069
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.389		1.389
	WCDMA II_LAT	Front		1.057	1.057
		Back	2.032	1.069	3.101
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.095		1.095
CDMA	CDMA2000 BC1_LAT	Front		1.057	1.057
		Back	2.568	1.069	3.637
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.571		1.571
LTE	LTE Band 25_LAT	Front		1.057	1.057
		Back		1.069	1.069
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.082		1.082
	LTE Band 30_LAT	Front		1.057	1.057
		Back	2.596	1.069	3.665
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.213		1.213
	LTE Band 7_LAT	Front		1.057	1.057
		Back	2.150	1.069	3.219
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.127		1.127



WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1+2	
			10g SAR (W/kg)	10g SAR (W/kg)	
WCDMA	WCDMA IV_LAT	Front		0.734	0.734
		Back		1.069	1.069
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.389		1.389
	WCDMA II_LAT	Front		0.734	0.734
		Back	2.032	1.069	3.101
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.095		1.095
CDMA	CDMA2000 BC1_LAT	Front		0.734	0.734
		Back	2.568	1.069	3.637
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.571		1.571
LTE	LTE Band 25_LAT	Front		0.734	0.734
		Back		1.069	1.069
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.082		1.082
	LTE Band 30_LAT	Front		0.734	0.734
		Back	2.596	1.069	3.665
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.213		1.213
	LTE Band 7_LAT	Front		0.734	0.734
		Back	2.150	1.069	3.219
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.127		1.127



WWAN Band	Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)	
		NR	5GHz WLAN Ant 1+2		
		10g SAR (W/kg)	10g SAR (W/kg)		
UAT	N66_Ant2	Front		1.057	1.057
		Back		1.069	1.069
		Left side	2.264		2.264
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	N25_Ant2	Front		1.057	1.057
		Back		1.069	1.069
		Left side	2.762		2.762
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	N7_Ant2	Front	1.617	1.057	2.674
		Back	1.133	1.069	2.202
		Left side	2.405		2.405
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	N41_Ant2	Front	1.462	1.057	2.519
		Back	1.196	1.069	2.265
		Left side	2.051		2.051
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	N41(HPUE)_Ant2	Front	1.743	1.057	2.800
		Back	1.528	1.069	2.597
		Left side	2.460		2.460
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
N77_Ant7	Front		1.057	1.057	
	Back		1.069	1.069	
	Left side	2.631		2.631	
	Right side		1.158	1.158	
	Top side		1.001	1.001	
	Bottom side			0.000	
LAT	N66_Ant3	Front		1.057	1.057
		Back		1.069	1.069
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side			0.000
	N25_Ant3	Front		1.057	1.057
		Back		1.069	1.069
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.234		1.234
	N7_Ant3	Front		1.057	1.057
		Back	2.022	1.069	3.091
		Left side			0.000



		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	0.896		0.896
	N41_Ant3	Front		1.057	1.057
		Back	2.285	1.069	3.354
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
		Bottom side	1.138		1.138
		N41(HPUE)_Ant3	Front	1.314	1.057
	Back		2.353	1.069	3.422
	Left side				0.000
	Right side			1.158	1.158
	Top side			1.001	1.001
	Bottom side		1.098		1.098
EN-DC_Ant0	N66_Ant0	Front		1.057	1.057
		Back	1.277	1.069	2.346
		Left side			0.000
		Right side		1.158	1.158
		Top side	2.125	1.001	3.126
		Bottom side			0.000
	N41_Ant0	Front		1.057	1.057
		Back	1.239	1.069	2.308
		Left side			0.000
		Right side		1.158	1.158
		Top side	2.150	1.001	3.151
		Bottom side			0.000
	N41(HPUE)_Ant0	Front		1.057	1.057
		Back	1.239	1.069	2.308
		Left side			0.000
		Right side		1.158	1.158
		Top side	2.150	1.001	3.151
		Bottom side			0.000





WWAN Band	Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)	
		WWAN	5GHz WLAN Ant 1+2		
		10g SAR (W/kg)	10g SAR (W/kg)		
UAT	N66_Ant2	Front		0.734	0.734
		Back		1.069	1.069
		Left side	2.264		2.264
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	N25_Ant2	Front		0.734	0.734
		Back		1.069	1.069
		Left side	2.762		2.762
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	N7_Ant2	Front	1.617	0.734	2.351
		Back	1.133	1.069	2.202
		Left side	2.405		2.405
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	N41_Ant2	Front	1.462	0.734	2.196
		Back	1.196	1.069	2.265
		Left side	2.051		2.051
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	N41(HPUE)_Ant2	Front	1.743	0.734	2.477
		Back	1.528	1.069	2.597
		Left side	2.460		2.460
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
N77_Ant7	Front		0.734	0.734	
	Back		1.069	1.069	
	Left side	2.631		2.631	
	Right side		0.897	0.897	
	Top side		0.641	0.641	
	Bottom side			0.000	
LAT	N66_Ant3	Front		0.734	0.734
		Back		1.069	1.069
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side			0.000
	N25_Ant3	Front		0.734	0.734
		Back		1.069	1.069
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.234		1.234
	N7_Ant3	Front		0.734	0.734
		Back	2.022	1.069	3.091
		Left side			0.000



		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	0.896		0.896
	N41_Ant3	Front		0.734	0.734
		Back	2.285	1.069	3.354
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
		Bottom side	1.138		1.138
		N41(HPUE)_Ant3	Front	1.314	0.734
	Back		2.353	1.069	3.422
	Left side				0.000
	Right side			0.897	0.897
	Top side			0.641	0.641
	Bottom side		1.098		1.098
EN-DC_Ant0	N66_Ant0	Front		0.734	0.734
		Back	1.277	1.069	2.346
		Left side			0.000
		Right side		0.897	0.897
		Top side	2.125	0.641	2.766
		Bottom side			0.000
	N41_Ant0	Front		0.734	0.734
		Back	1.239	1.069	2.308
		Left side			0.000
		Right side		0.897	0.897
		Top side	2.150	0.641	2.791
		Bottom side			0.000
	N41(HPUE)_Ant0	Front		0.734	0.734
		Back	1.239	1.069	2.308
		Left side			0.000
		Right side		0.897	0.897
		Top side	2.150	0.641	2.791
		Bottom side			0.000



WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN	5GHz WLAN Ant 1+2	
			10g SAR (W/kg)	10g SAR (W/kg)	
EN-DC_Ant0 (UAT)	LTE Band 66_Ant0	Front		1.057	1.057
		Back at 8mm	1.045	1.069	2.114
		Left side			0.000
		Right side		1.158	1.158
		Top side at 9mm	1.388	1.001	2.389
		Bottom side			0.000
	LTE Band 7_Ant0	Front		1.057	1.057
		Back at 8mm	0.392	1.069	1.461
		Left side			0.000
		Right side		1.158	1.158
		Top side at 9mm	0.617	1.001	1.618
		Bottom side			0.000
	N66_Ant0	Front		1.057	1.057
		Back at 8mm	0.639	1.069	1.708
		Left side			0.000
		Right side		1.158	1.158
		Top side at 9mm	0.786	1.001	1.787
		Bottom side			0.000
	N41_Ant0	Front		1.057	1.057
		Back at 8mm	0.598	1.069	1.667
		Left side			0.000
		Right side		1.158	1.158
		Top side at 9mm	0.982	1.001	1.983
		Bottom side			0.000
N41(HPUE)_Ant0	Front		1.057	1.057	
	Back at 8mm	0.617	1.069	1.686	
	Left side			0.000	
	Right side		1.158	1.158	
	Top side at 9mm	0.940	1.001	1.941	
	Bottom side			0.000	



WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
EN-DC_Ant0 (UAT)	LTE Band 66_Ant0	Front		0.734	0.734
		Back at 8mm	1.045	1.069	2.114
		Left side			0.000
		Right side		0.897	0.897
		Top side at 9mm	1.388	0.641	2.029
		Bottom side			0.000
	LTE Band 7_Ant0	Front		0.734	0.734
		Back at 8mm	0.392	1.069	1.461
		Left side			0.000
		Right side		0.897	0.897
		Top side at 9mm	0.617	0.641	1.258
		Bottom side			0.000
	N66_Ant0	Front		0.734	0.734
		Back at 8mm	0.639	1.069	1.708
		Left side			0.000
		Right side		0.897	0.897
		Top side at 9mm	0.786	0.641	1.427
		Bottom side			0.000
	N41_Ant0	Front		0.734	0.734
		Back at 8mm	0.598	1.069	1.667
		Left side			0.000
		Right side		0.897	0.897
		Top side at 9mm	0.982	0.641	1.623
		Bottom side			0.000
N41(HPUE)_Ant0	Front		0.734	0.734	
	Back at 8mm	0.617	1.069	1.686	
	Left side			0.000	
	Right side		0.897	0.897	
	Top side at 9mm	0.940	0.641	1.581	
	Bottom side			0.000	



WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
WCDMA	WCDMA IV_LAT	Front		1.057	1.057
		Back		1.069	1.069
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
	Bottom side at 7mm	1.135		1.135	
	WCDMA II_LAT	Front		1.057	1.057
		Back at 8mm	0.992	1.069	2.061
		Left side			0.000
		Right side		1.158	1.158
Top side			1.001	1.001	
Bottom side at 7mm	1.300		1.300		
CDMA	CDMA2000 BC1_LAT	Front		1.057	1.057
		Back at 8mm	0.426	1.069	1.495
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
Bottom side at 7mm	0.577		0.577		
LTE	LTE Band 25_LAT	Front		1.057	1.057
		Back		1.069	1.069
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
	Bottom side at 7mm	1.018		1.018	
	LTE Band 30_LAT	Front		1.057	1.057
		Back at 8mm	0.896	1.069	1.965
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
	Bottom side at 7mm	1.111		1.111	
	LTE Band 7_LAT	Front		1.057	1.057
		Back at 8mm	0.873	1.069	1.942
		Left side			0.000
Right side			1.158	1.158	
Top side			1.001	1.001	
Bottom side at 7mm	1.014		1.014		
NR	N25_Ant3	Front		1.057	1.057
		Back		1.069	1.069
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
	Bottom side at 7mm	1.152		1.152	
	N7_Ant3	Front		1.057	1.057
		Back at 8mm	1.032	1.069	2.101
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
	Bottom side at 7mm	1.375		1.375	
	N41_Ant3	Front		1.057	1.057
		Back at 8mm	0.915	1.069	1.984
		Left side			0.000
		Right side		1.158	1.158
		Top side		1.001	1.001
	Bottom side at 7mm	1.341		1.341	
	N41(HPUE)_Ant3	Front at 5mm	1.419	1.057	2.476
		Back at 8mm	1.297	1.069	2.366
Left side				0.000	
Right side			1.158	1.158	
Top side			1.001	1.001	
Bottom side at 7mm	1.975		1.975		



WWAN Band		Exposure Position	1	4	1+4 Summed 10g SAR (W/kg)
			WWAN 10g SAR (W/kg)	5GHz WLAN Ant 1+2 10g SAR (W/kg)	
WCDMA	WCDMA IV_LAT	Front		0.734	0.734
		Back		1.069	1.069
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
	Bottom side at 7mm	1.135		1.135	
	WCDMA II_LAT	Front		0.734	0.734
		Back at 8mm	0.992	1.069	2.061
		Left side			0.000
		Right side		0.897	0.897
Top side			0.641	0.641	
Bottom side at 7mm	1.300		1.300		
CDMA	CDMA2000 BC1_LAT	Front		0.734	0.734
		Back at 8mm	0.426	1.069	1.495
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
Bottom side at 7mm	0.577		0.577		
LTE	LTE Band 25_LAT	Front		0.734	0.734
		Back		1.069	1.069
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
	Bottom side at 7mm	1.018		1.018	
	LTE Band 30_LAT	Front		0.734	0.734
		Back at 8mm	0.896	1.069	1.965
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
	Bottom side at 7mm	1.111		1.111	
	LTE Band 7_LAT	Front		0.734	0.734
		Back at 8mm	0.873	1.069	1.942
		Left side			0.000
Right side			0.897	0.897	
Top side			0.641	0.641	
Bottom side at 7mm	1.014		1.014		
NR	N25_Ant3	Front		0.734	0.734
		Back		1.069	1.069
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
	Bottom side at 7mm	1.152		1.152	
	N7_Ant3	Front		0.734	0.734
		Back at 8mm	1.032	1.069	2.101
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
	Bottom side at 7mm	1.375		1.375	
	N41_Ant3	Front		0.734	0.734
		Back at 8mm	0.915	1.069	1.984
		Left side			0.000
		Right side		0.897	0.897
		Top side		0.641	0.641
	Bottom side at 7mm	1.341		1.341	
	N41(HPUE)_Ant3	Front at 5mm	1.419	0.734	2.153
		Back at 8mm	1.297	1.069	2.366
Left side				0.000	
Right side			0.897	0.897	
Top side			0.641	0.641	
Bottom side at 7mm	1.975		1.975		



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

### **General Note:**

1. This device implements aperture tuner (10 status) + impedance tuner (144 status) antenna tuning techniques in the WCDMA V, CDMA2000 BC0/10, LTE Band 71/12/13/5/26/66/7, FR1 n71/n5/n66/n41/n41 HPUE for ANT1.
2. This device implements impedance tuner (144 status) antenna tuning techniques in the WCDMA V, CDMA2000 BC0/10, LTE Band 71/12/13/5/26/66/7, FR1 n71/n5/n66/n41/n41 HPUE for ANT0, and WCDMA IV/II, CDMA2000 BC1, LTE Band 66/25/30/7/41/41 HPUE, FR1 n66/n25/n7/n41/n41 HPUE for ANT2/3.
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. According to TCBC 201904 workshop, total number tuner states divided evenly among each supported band / air interface and exposure condition combination.
7. 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\_201210 Medium parameters used:  $f = 750 \text{ MHz}$ ;  $\sigma = 0.896 \text{ S/m}$ ;  $\epsilon_r = 40.991$ ;  $\rho = 1000 \text{ kg/m}^3$   
Ambient Temperature :  $23.4 \text{ }^\circ\text{C}$ ; Liquid Temperature :  $22.6 \text{ }^\circ\text{C}$

DASY5 Configuration:

- Probe: EX3DV4 - SN7576; ConvF(10.71, 10.71, 10.71); Calibrated: 2020.01.22;
- Sensor-Surface: 1.4mm (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 (61x61x1):** Interpolated grid:  $dx=1.500 \text{ mm}$ ,  $dy=1.500 \text{ mm}$   
Maximum value of SAR (interpolated) =  $2.66 \text{ W/kg}$

**Pin=250mW/Zoom Scan (5x5x7)/Cube 0:** Measurement grid:  $dx=8\text{mm}$ ,  $dy=8\text{mm}$ ,  $dz=5\text{mm}$   
Reference Value =  $55.49 \text{ V/m}$ ; Power Drift =  $0.05 \text{ dB}$   
Peak SAR (extrapolated) =  $3.09 \text{ W/kg}$   
**SAR(1 g) =  $2.14 \text{ W/kg}$ ; SAR(10 g) =  $1.44 \text{ W/kg}$**   
Maximum value of SAR (measured) =  $2.67 \text{ W/kg}$

