FCC SAR TEST REPORT

FCC ID	:	**2ABZ2-AA497**
Equipment	:	**Mobile Phone**
Brand Name	:	**ONEPLUS**
Model Name	:	**CPH2419, CPH2417**
Applicant	:	**OnePlus Technology (Shenzhen) Co.,Ltd. 18C02,18C03,18C04,18C05,Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, China.**
Manufacturer	:	**OnePlus Technology (Shenzhen) Co., Ltd. 18C02,18C03,18C04,18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, China.**
Standard	:	**FCC 47 CFR Part 2 (2.1093)**

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB 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 Inc. (Shenzhen), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang

ACCREDITED Cert #5145.01

Sporton International Inc. (Shenzhen)
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
FA251121	01	Initial issue of report	Jul. 11, 2022

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **OnePlus Technology (Shenzhen) Co.,Ltd., Mobile Phone, CPH2419, CPH2417,** 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	1.05	0.36	0.73	-	1.59
	GSM1900	0.75	0.44	0.71	-	
WCDMA	WCDMA V	0.93	0.44	**0.79**	1.52	
	WCDMA IV	1.18	0.72	0.71	2.02	
	WCDMA II	**1.19**	0.64	0.76	2.50	
LTE	LTE Band 71	0.66	0.22	0.76	-	
	LTE Band 12 / 17	0.96	0.27	0.64	-	
	LTE Band 13	1.03	0.36	**0.79**	1.22	
	LTE Band 26 / 5	1.08	0.35	0.64	-	
	LTE Band 66 / 4	1.18	0.77	0.70	**2.78**	
	LTE Band 25 / 2	**1.19**	0.76	0.71	2.30	
	LTE Band 30	**1.19**	0.66	0.72	2.75	
	LTE Band 7	1.18	**0.80**	0.74	2.67	
	LTE Band 41 / 38	**1.19**	0.61	0.75	2.65	
	LTE Band 48	1.07	0.67	0.66	1.93	
5G NR	n71	1.18	0.33	0.68	-	
	n5	1.02	0.38	0.74	-	
	n66	1.04	0.78	0.75	2.10	
	n25/ n2	1.11	0.70	0.72	2.28	
	n30	1.15	0.73	0.77	2.35	
	n7	1.11	0.70	0.72	2.74	
	n41/n38	1.07	0.26	0.75	2.63	
	n77	1.04	0.65	0.66	2.15	
WLAN	2.4GHz WLAN	1.12	0.28	0.72	-	1.59
	5GHz WLAN	1.07	0.41	0.66	2.24	1.59
2.4GHz Band	Bluetooth	1.18	0.15	0.11	-	1.53
Date of Testing:		2022/6/7 ~ 2022/6/26				

Remark:
1. This device supports both LTE B4/5/17/38/2 and B66/26/12/41/25. Since the supported frequency span for LTE B4/5/17/38/2 falls completely within the supports frequency span for LTE B66/26/12/41/25, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B66/26/12/41/25.
2. This device supports both 5G NR n2/n38 and 5G NR n25/n41. Since the supported frequency span for 5G NR n2/n38 falls completely within the supports frequency span for 5G NR n25/n41, both NR bands have the same target power, and both NR bands share the same transmission path; therefore, SAR was only assessed for 5G NR n25/n41.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
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.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	SAR01-SZ SAR04-SZ	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 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 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 447498 D04 Interim General RF Exposure Guidance v01
-

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	ONEPLUS
Model Name	CPH2419, CPH2417
FCC ID	2ABZ2-AA497
IMEI Code	861677060028241
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77 : 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 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 ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS/DTM AMR / RMC 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac/ax VHT20/VHT40/HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	2AA495-0

SW Version	CPH2419_11_A.03
GSM / (E)GPRS Dual Transfer mode	Class A – EUT can support Packet Switched and Circuit Switched Network simultaneously.
EUT Stage	Production Unit

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP) and LTE supports VoLTE operation.
2. This device support DTM operation up to multi-slot class 11 and supports GPRS/EGPRS mode up to multi-slot class 33.
3. This device WLAN 2.4GHz / 5.2GHz / 5.8GHz supports Hotspot operation and Bluetooth support tethering applications.
4. 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. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi antennas accordingly. Details about the power management decision and sensor detection are provided in the operational description. Power table (DSI 5/10/15: receiver on head power, DSI 17: hotspot on power, DSI 1/6/11: P-sensor on body for ANT2/5/10, DSI 2/7/12: P-sensor on body for ANT1, DSI 4/9/14: Receiver off/sensor off for body).

Exposure conditions	Trigger Conditions	DSI	Antenna
Body Worn(2G/3G/4G/NR)	Receiver off/sensor off	4	ANT0/2/5/6/10
Body Worn(2G/3G/4G/NR)	Receiver off/sensor off	4	ANT1/3
Body Worn(2.4G or 5G On)(2G/3G/4G/NR)	Receiver off/sensor off	9	ANT0/2/5/6/10
Body Worn(2.4G or 5G On)(2G/3G/4G/NR)	Receiver off/sensor off	9	ANT1/3
Body Worn(2.4G+5G On)(2G/3G/4G/NR)	Receiver off/sensor off	14	ANT0/2/5/6/10
Body Worn(2.4G+5G On)(2G/3G/4G/NR)	Receiver off/sensor off	14	ANT1/3
Extremity(2G/3G/4G/NR)	Sensor on	1	ANT2/5/10
Extremity(2G/3G/4G/NR)	Sensor on	2	ANT1
Extremity(2.4G or 5G On)(2G/3G/4G/NR)	Sensor on	6	ANT2/5/10
Extremity(2.4G or 5G On)(2G/3G/4G/NR)	Sensor on	7	ANT1
Extremity(2.4G+5G On)(2G/3G/4G/NR)	Sensor on	11	ANT2/5/10
Extremity(2.4G+5G On)(2G/3G/4G/NR)	Sensor on	12	ANT1
Hotspot(2.4G or 5G On)(2.4G+5G On)	Hotspot On	17	ANT0/2/5/6/10
Hotspot(2G/3G/4G/NR)(2.4G or 5G On)(2.4G+5G On)	Hotspot On	17	ANT1/3
Head(2G/3G/4G/NR)	Receiver on	5	ANT0/2/5/6/10
Head(2G/3G/4G/NR)	Receiver on	5	ANT1/3
Head(2.4G or 5G On)(2G/3G/4G/NR)	Receiver on with Wifi/Hotspot on	10	ANT0/2/5/6/10
Head(2.4G or 5G On)(2G/3G/4G/NR)	Receiver on with Wifi/Hotspot on	10	ANT1/3
Head(2.4G+5G On)(2G/3G/4G/NR)	Receiver on with Wifi/Hotspot on	15	ANT0/2/5/6/10
Head(2.4G+5G On)(2G/3G/4G/NR)	Receiver on with Wifi/Hotspot on	15	ANT1/3

5. For WLAN/BT when transmit simultaneous with WWAN, power reduction will be activated to head, hotspot, body-worn and extremity.

2.4G Head	Power Reduction	2.4G Body	Power Reduction
2.4G Standalone	Reduced Power level 1	2.4G Standalone	Reduced Power level 1
WWAN+2.4G	Reduced Power level 2	WWAN+2.4G	Reduced Power level 2
WWAN+2.4G+5G	Reduced Power level 3	WWAN+2.4G+5G	Reduced Power level 3

5G Head	Power Reduction	5G Body	Power Reduction
5G Standalone	Reduced Power level 1	5G Standalone	Reduced Power level 1
WWAN+5G	Reduced Power level 2	WWAN+5G	Reduced Power level 2
WWAN+2.4G+5G	Reduced Power level 3	WWAN+2.4G+5G	Reduced Power level 3

BT（Head）	Power Reduction	BT（Body）	Power Reduction
Standalone	Reduced Power level 1	Standalone	Reduced Power level 1
WWAN+BT/2.4G+BT/5G+BT	Reduced Power level 2	WWAN+BT/2.4G+BT/5G+BT	Reduced Power level 2
WWAN+2.4G+BT/WWAN+5G+BT	Reduced Power level 3	WWAN+2.4G+BT/WWAN+5G+BT	Reduced Power level 3

6. LTE band 41, 5GNR n41/n77 supports HPUE, HPUE power and SAR testing performed separately.

7. LTE Band 41 supports HPUE mode only limit to Antenna 2 and Antenna 3.
8. 5G NR n41 supports UL MIMO at Antenna 3 and Antenna 5, Antenna 2 and Antenna 6.
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. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
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. The two models CPH2419, CPH2417 are just to differentiate the market, the others are the same.
15. This device has NFC function and the NFC SAR report will be separately submitted.
16. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode.

<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, 25, 30, 40
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n71	FDD	15	5, 10, 15, 20
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 70, 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, 25, 30, 40
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>2ABZ2-AA497</td></tr>
<tr><td>Equipment Name</td><td>Mobile Phone</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>LTE Band 2: 1850 MHz ~ 1910 MHz
LTE Band 4: 1710 MHz ~ 1755 MHz
LTE Band 5: 824 MHz ~ 849 MHz
LTE Band 7: 2500 MHz ~ 2570 MHz
LTE Band 12: 699 MHz ~ 716 MHz
LTE Band 13: 777 MHz ~ 787 MHz
LTE Band 17: 704 MHz ~ 716 MHz
LTE Band 25: 1850 MHz ~ 1915 MHz
LTE Band 26: 814 MHz ~ 849 MHz
LTE Band 30: 2305 MHz ~ 2315 MHz
LTE Band 38: 2570 MHz ~ 2620 MHz
LTE Band 41: 2496 MHz ~ 2690 MHz
LTE Band 48: 3550 MHz ~ 3700 MHz
LTE Band 66: 1710 MHz ~ 1780 MHz
LTE Band 71: 663 MHz ~ 698 MHz</td></tr>
<tr><td>Channel Bandwidth</td><td>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</td></tr>
<tr><td>uplink modulations used</td><td>QPSK / 16QAM / 64QAM / 256QAM</td></tr>
<tr><td>LTE Voice / Data requirements</td><td>Voice and Data</td></tr>
<tr><td>LTE Release Version</td><td>R16, Cat 18</td></tr>
<tr><td>CA Support</td><td>Yes, Uplink and Downlink</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr>
<tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr>
<tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr>
<tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr>
<tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr>
<tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr>
</table></td></tr>
<tr><td>LTE A-MPR</td><td>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)</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>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.</td></tr>
<tr><td>Power reduction applied to satisfy SAR compliance</td><td>Yes, receiver detected /hotspot /proximity sensor will trigger reduced power for some LTE bands, the detail please referred to section 14.</td></tr>
<tr><td>LTE Carrier Aggregation Combinations</td><td>Inter-Band and Intra-Band possible combinations and the detail power measurement please referred to section 14.</td></tr>
<tr><td>LTE Carrier Aggregation Additional Information</td><td>1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band 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.</td></tr>
</table>

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5								
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844
LTE Band 7								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560
LTE Band 12								
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711
LTE Band 13				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	23205	779.5	23230	782
M	23230	782		
H	23255	784.5		
LTE Band 17				
	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq. (MHz)
L	23755	706.5	23780	709
M	23790	710	23790	710
H	23825	713.5	23800	711
LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
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	133322	683
H	133447	695.5	133422	693	133397	690.5	133372	688

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 2	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 25	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 12	Yes	Yes	Yes	Yes	-	-
LTE Band 17	-	-	Yes	Yes	-	-
LTE Band 5	Yes	Yes	Yes	Yes	-	-
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 38	-	-	Yes	Yes	Yes	Yes
LTE Band 41	-	-	Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	Head (DSI5)	Head (DSI10)	Head (DSI15)	Body Worn (DSI4)	Body Worn (DSI9)	Body Worn (DSI14)	Hotspot (DSI17)	Extremity (DSI1)	Extremity (DSI6)	Extremity (DSI11)	Default
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 12	ANT 1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
LTE Band 17	ANT 1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
LTE Band 5	ANT 1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	2.0	25.0	25.0	25.0
LTE Band 26	ANT 1	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
LTE Band 4	ANT 3	25.0	25.0	25.0	25.0	25.0	25.0	20.0	25.0	25.0	25.0	25.0
LTE Band 66	ANT 3	25.0	25.0	25.0	25.0	25.0	25.0	20.0	25.0	25.0	25.0	25.0
LTE Band 2	ANT 3	25.0	25.0	25.0	25.0	25.0	25.0	21.0	25.0	25.0	25.0	25.0
LTE Band 25	ANT 3	25.0	25.0	25.0	25.0	25.0	25.0	21.0	25.0	25.0	25.0	25.0
LTE Band 38	ANT 3	24.5	24.5	24.5	24.5	24.5	24.5	24.0	24.5	24.5	24.5	24.5
LTE Band 41(PC3)	ANT 3	25.0	25.0	25.0	25.0	25.0	25.0	24.0	25.0	25.0	25.0	25.0
LTE Band 41(PC2)	ANT 3	27.0	27.0	27.0	27.0	27.0	27.0	25.6	27.0	27.0	27.0	27.0

Band	Antenna	Head (DSI5)	Head (DSI10)	Head (DSI15)	Body Worn (DSI4)	Body Worn (DSI9)	Body Worn (DSI14)	Hotspot (DSI17)	Extremity (DSI1)	Extremity (DSI6)	Extremity (DSI11)	Default
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 12	ANT 0	25.0	23.5	23.5	25.0	25.0	25.0	23.0	25.0	25.0	25.0	25.0
LTE Band 17	ANT 0	25.0	23.5	23.5	25.0	25.0	25.0	23.0	25.0	25.0	25.0	25.0
LTE Band 5	ANT 0	24.0	22.5	22.5	25.0	25.0	25.0	23.5	25.0	25.0	25.0	25.0
LTE Band 26	ANT 0	24.0	22.5	22.5	25.0	25.0	25.0	23.5	25.0	25.0	25.0	25.0
LTE Band 4	ANT 2	18.5	17.0	17.0	25.0	25.0	25.0	22.5	24.0	22.5	22.5	25.0
LTE Band 66	ANT 2	18.5	17.0	17.0	25.0	25.0	25.0	22.5	24.0	22.5	22.5	25.0
LTE Band 4(UL CA)	ANT 5	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0	24.0
LTE Band 4(UL CA)	ANT 6	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
LTE Band 66(EN-DC)	ANT 5	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
LTE Band 66(EN-DC)	ANT 6	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
LTE Band 2	ANT 2	18.0	16.0	16.0	25.0	25.0	25.0	20.5	22.5	21.5	21.5	25.0
LTE Band 25	ANT 2	18.0	16.0	16.0	25.0	25.0	25.0	20.5	22.5	21.5	21.5	25.0
LTE Band 38	ANT 2	18.5	16.5	16.5	24.5	24.5	24.5	21.5	22.5	21.0	21.0	24.5
LTE Band 38(EN-DC)	ANT 5	20.5	19.5	19.5	24.5	24.5	24.5	23.0	24.5	24.5	24.5	24.5
LTE Band 38(EN-DC)	ANT 6	19.5	18.5	18.5	22.5	22.5	22.5	21.0	22.5	22.5	22.5	22.5
LTE Band 41(PC3)	ANT 2	18.5	16.5	16.5	25.0	25.0	25.0	21.5	22.5	21.0	21.0	25.0
LTE Band 41(PC2)	ANT 2	20.1	18.1	18.1	27.0	27.0	27.0	23.1	24.1	22.6	22.6	27.0
LTE Band 41(EN-DC)	ANT 5	20.5	19.5	19.5	25.0	25.0	25.0	23.0	25.0	25.0	25.0	25.0
LTE Band 41(EN-DC)	ANT 6	19.5	18.5	18.5	24.5	24.5	24.5	21.0	24.5	24.5	24.5	24.5

Note: This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR FR1 Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n77 : 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
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 B2/7/30/48/66
LTE Anchor Bands for n7	LTE B5/66
LTE Anchor Bands for n25	LTE B66
LTE Anchor Bands for n30	LTE B5/12/66
LTE Anchor Bands for n41	LTE B2/25/26/66
LTE Anchor Bands for n66	LTE B2/5/7/12/13/30
LTE Anchor Bands for n71	LTE B2/66
LTE Anchor Bands for n77	LTE B5/7/12/13/66

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		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550

NR Band 25														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	374000	1870
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.53
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379000	1895

NR Band 30				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	461500	2307.5		
M	462000	2310	462000	2310
H	462500	2312.5		

NR Band 66												
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353000	1765	352000	1760

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 38						
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	516000	2580	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595
H	522000	2610	520998	2604.99	519996	2599.98

NR Band 41																				
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		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)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	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	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

For 3450MHz ~ 3550MHz

NR Band 77 SCS30KHz																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		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)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

For 3700MHz ~ 3980MHz

NR Band 77 SCS30KHz																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		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)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	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	656000	3840
H	664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

<For NR Overlap Bands Description>

1) NR Bands BW

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
SA	n2	FDD	15	5, 10, 15, 20
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n38	TDD	30	20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100

2) NR Bands Tune up:

Band	Antenna	Head (DSI5)	Head (DSI10)	Head (DSI15)	Body Worn (DSI4)	Body Worn (DSI9)	Body Worn (DSI14)	Hotspot (DSI17)	Extremity (DSI2)	Extremity (DSI7)	Extremity (DSI12)	Default
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
n2	ANT 3	25.2	25.2	25.2	25.2	25.2	25.2	20.7	25.2	25.2	25.2	25.2
n25	ANT 3	25.2	25.2	25.2	25.2	25.2	25.2	20.7	25.2	25.2	25.2	25.2
n38	ANT 3	24.7	24.7	24.7	24.7	24.7	24.7	22.7	24.7	24.7	24.7	24.7
n41(PC3)	ANT 3	24.2	24.2	24.2	24.2	24.2	24.2	22.7	24.2	24.2	24.2	24.2
n41(PC2)	ANT 3	27.2	27.2	27.2	27.2	27.2	27.2	22.7	27.2	27.2	27.2	27.2

Band	Antenna	Head (DSI5)	Head (DSI10)	Head (DSI15)	Body Worn (DSI4)	Body Worn (DSI9)	Body Worn (DSI14)	Hotspot (DSI17)	Extremity (DSI1)	Extremity (DSI6)	Extremity (DSI11)	Default
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
n2	ANT 2	18.2	17.2	17.2	25.2	25.2	25.2	21.7	22.2	21.2	21.2	25.2
n25	ANT 2	18.2	17.2	17.2	25.2	25.2	25.2	21.7	22.2	21.2	21.2	25.2
n38	ANT 2	16.7	14.7	14.7	24.2	24.2	24.2	18.7	21.2	19.7	19.7	24.2
n41(PC3)	ANT 2	16.7	14.7	14.7	24.2	24.2	24.2	18.7	21.2	19.7	19.7	24.2
n41(PC2)	ANT 2	16.7	14.7	14.7	27.2	27.2	27.2	18.7	21.2	19.7	19.7	27.2

Note: This device supports 5GNR N2 / N38 and N25 / N41. Since the supported frequency span for 5GNR N2 / N38 falls completely within the supports frequency span for N25 / N41, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for N25 / N41.

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>

P_{limit}	The time-averaged RF power which corresponds to SAR_design_target.
P_{max}	Maximum target power level
SAR_design_target:	The design target for SAR compliance. It should be less than regulatory SAR limit to account for all device design related uncertainty.
SAR char	P_{limit} for all the technologies/bands for all applicable DSI

<SAR Characterization>

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

<SAR design target and uncertainty>

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

	Uncertainty dB (k=2)
Total uncertainty	1.0

To account for total uncertainty, SAR_design_target should be determined as:

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

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

<P_{limit} for supported technologies and bands (P_{limit} in EFS file)> for UAT

Band	Antenna	Head (DSI5) WWAN Standalone	Head (DSI10) Head(2.4G or 5G On)	Head (DSI15) Head (2.4G+5G On)	Body Worn (DSI4) WWAN Standalone	Body Worn (DSI9) (2.4G or 5G On)	Body Worn (DSI14) (2.4G+5G On)	Hotspot (DSI17)	Extremity (DSI1) WWAN Standalone	Extremity (DSI6) (2.4G or 5G On)	Extremity (DSI11) (2.4G+5G On)	Pmax*
GSM850(4 Tx slots)**	ANT 0	24.6	22.0	22.0	27.5	27.5	27.5	23.0	24.0	24.0	24.0	24.0
GSM1900(4 Tx slots)**	ANT 2	15.5	15.5	15.5	25.4	25.4	25.4	20.0	21.0	21.0	21.0	21.0
WCDMA V	ANT 0	22.0	20.0	20.0	26.6	26.6	26.6	22.0	24.0	24.0	24.0	24.0
WCDMA IV	ANT 2	17.0	15.0	15.0	24.9	24.9	24.9	20.5	22.0	20.5	20.5	24.0
WCDMA II	ANT 2	16.5	14.5	14.5	25.0	25.0	25.0	20.5	22.5	21.0	21.0	24.0
LTE Band 71	ANT 0	26.5	24.8	24.8	29.7	29.7	29.7	24.2	24.0	24.0	24.0	24.0
LTE Band 12/17	ANT 0	25.0	22.5	22.5	29.4	29.4	29.4	22.0	24.0	24.0	24.0	24.0
LTE Band 13	ANT 0	23.0	21.5	21.5	27.5	27.5	27.5	22.0	24.0	24.0	24.0	24.0
LTE Band 26/5	ANT 0	23.0	21.5	21.5	27.5	27.5	27.5	22.5	24.0	24.0	24.0	24.0
LTE Band 66/4	ANT 2	17.5	16.0	16.0	25.1	25.1	25.1	21.5	23.0	21.5	21.5	24.0
LTE Band 4(UL CA)	ANT 5	30.9	30.1	30.1	38.1	38.1	38.1	36.8	23.0	23.0	23.0	23.0
LTE Band 4(UL CA)	ANT 6	29.1	28.3	28.3	40.0	40.0	40.0	36.8	21.0	21.0	21.0	21.0
LTE Band 66(EN-DC)	ANT 5	30.9	30.1	30.1	38.1	38.1	38.1	36.8	24.0	24.0	24.0	24.0
LTE Band 66(EN-DC)	ANT 6	29.1	28.3	28.3	40.0	40.0	40.0	36.8	22.0	22.0	22.0	22.0
LTE Band 25/2	ANT 2	17.0	15.0	15.0	24.3	24.3	24.3	19.5	21.5	20.5	20.5	24.0
LTE Band 30	ANT 2	17.5	15.8	15.8	25.5	25.5	25.5	19.0	20.5	19.0	19.0	24.0
LTE Band 7	ANT 2	15.7	13.7	13.7	23.3	23.3	23.3	18.5	20.2	18.7	18.7	23.2
LTE Band 7(EN-DC)	ANT 5	17.7	16.7	16.7	23.2	23.2	23.2	20.2	23.2	23.2	23.2	23.2
LTE Band 7(EN-DC)	ANT 6	17.7	15.7	15.7	25.4	25.4	25.4	19.2	21.2	21.2	21.2	21.2
LTE Band 38	ANT 2	15.5	13.5	13.5	23.5	23.5	23.5	18.5	19.5	18.0	18.0	21.5
LTE Band 38(EN-DC)**	ANT 5	17.5	16.5	16.5	21.5	21.5	21.5	20.0	21.5	21.5	21.5	21.5
LTE Band 38(EN-DC)**	ANT 6	16.5	15.5	15.5	23.2	23.2	23.2	18.0	19.5	19.5	19.5	19.5
LTE Band 41(PC3)**	ANT 2	15.5	13.5	13.5	23.5	23.5	23.5	18.5	19.5	18.0	18.0	22.0
LTE Band 41(PC2)**	ANT 2	15.5	13.5	13.5	23.5	23.5	23.5	18.5	19.5	18.0	18.0	22.4
LTE Band 41(EN-DC)**	ANT 5	17.5	16.5	16.5	22.0	22.0	22.0	20.0	22.0	22.0	22.0	22.0
LTE Band 41(EN-DC)**	ANT 6	16.5	15.5	15.5	23.2	23.2	23.2	18.0	21.5	21.5	21.5	21.5
LTE Band 48	ANT 5	15.0	13.0	13.0	22.0	22.0	22.0	18.0	20.0	20.0	20.0	22.0
LTE Band 48	ANT 10	22.0	20.5	20.5	22.8	22.8	22.8	19.5	22.0	22.0	22.0	22.0
n71	ANT 0	24.2	22.2	22.2	29.8	28.0	28.0	22.2	24.2	24.2	24.2	24.2
n5	ANT 0	22.7	21.7	21.7	28.6	26.9	26.9	22.2	23.7	23.7	23.7	23.7
n66	ANT 2	17.2	16.2	16.2	27.8	26.1	26.1	20.7	24.2	23.2	23.2	24.2
n66(EN-DC)	ANT 5	29.6	28.8	28.8	37.3	37.3	37.3	35.2	24.2	24.2	24.2	24.2
n66(EN-DC)	ANT 6	27.9	27.1	27.1	37.5	37.5	37.5	35.5	22.2	22.2	22.2	22.2
n25/2	ANT 2	17.2	16.2	16.2	25.4	25.4	25.4	20.7	21.2	20.2	20.2	24.2
n30	ANT 2	17.7	16.7	16.7	24.6	24.6	24.6	20.2	21.2	19.7	19.7	24.2
n7	ANT 2	15.7	14.7	14.7	23.8	23.8	23.8	18.2	20.2	19.2	19.2	23.2
n38	ANT 2	15.7	13.7	13.7	26.2	26.2	26.2	17.7	20.2	18.7	18.7	23.7
n41(PC3)	ANT 2	15.7	13.7	13.7	26.2	26.2	26.2	17.7	20.2	18.7	18.7	23.2
n41(PC2)	ANT 2	15.7	13.7	13.7	26.2	26.2	26.2	17.7	20.2	18.7	18.7	26.2
n41(PC3)	ANT 5	16.7	15.7	15.7	25.2	25.2	25.2	19.2	24.2	23.2	23.2	23.2
n41(PC2)	ANT 5	16.7	15.7	15.7	25.2	25.2	25.2	19.2	24.2	23.2	23.2	25.2
n41(PC3)	ANT 6	17.2	15.2	15.2	24.2	24.2	24.2	18.7	24.2	24.2	24.2	22.2
n41(PC2)	ANT 6	17.2	15.2	15.2	24.2	24.2	24.2	18.7	24.2	24.2	24.2	24.2
n77(PC3)	ANT 5	14.7	13.7	13.7	25.7	25.7	25.7	17.7	21.2	19.7	19.7	23.7
n77(PC2)	ANT 5	14.7	13.7	13.7	25.7	25.7	25.7	17.7	21.2	19.7	19.7	25.7
n77(PC3)	ANT 10	22.2	21.2	21.2	25.2	25.2	25.2	18.2	20.2	18.7	18.7	23.2
n77(PC2)	ANT 10	22.2	21.2	21.2	25.2	25.2	25.2	18.2	20.2	18.7	18.7	25.2

<P_{limit} for supported technologies and bands (P_{limit} in EFS file)> for LAT

Band	Antenna	Head (DSI5) WWAN Standalone	Head (DSI10) Head(2.4G or 5G On)	Head (DSI15) Head (2.4G+5G On)	Body Worn (DSI4) WWAN Standalone	Body Worn (DSI9) (2.4G or 5G On)	Body Worn (DSI14) (2.4G+5G On)	Hotspot (DSI17)	Extremity (DSI2) WWAN Standalone	Extremity (DSI7) (2.4G or 5G On)	Extremity (DSI12) (2.4G+5G On)	Pmax*
GSM850(4 Tx slots)**	ANT 1	28.9	28.1	28.1	29.4	29.4	29.4	26.9	24.0	24.0	24.0	24.0
GSM1900(4 Tx slots)**	ANT 3	31.0	30.2	30.2	24.0	24.0	24.0	20.0	21.0	21.0	21.0	21.0
WCDMA V	ANT 1	30.8	30.0	30.0	30.3	30.3	30.3	27.6	24.0	24.0	24.0	24.0
WCDMA IV	ANT 3	30.1	29.3	29.3	24.0	24.0	24.0	20.0	24.0	24.0	24.0	24.0
WCDMA II	ANT 3	29.5	28.7	28.7	24.0	24.0	24.0	19.5	24.0	24.0	24.0	24.0
LTE Band 71	ANT 1	33.8	33.0	33.0	31.8	31.8	31.8	27.5	24.0	24.0	24.0	24.0
LTE Band 12/17	ANT 1	32.1	31.3	31.3	29.4	29.4	29.4	26.3	24.0	24.0	24.0	24.0
LTE Band 13	ANT 1	30.3	29.5	29.5	29.4	29.4	29.4	26.4	24.0	24.0	24.0	24.0
LTE Band 26/5	ANT 1	32.9	32.1	32.1	29.1	29.1	29.1	25.8	24.0	24.0	24.0	24.0
LTE Band 66/4	ANT 3	31.1	30.3	30.3	24.0	24.0	24.0	19.0	24.0	24.0	24.0	24.0
LTE Band 25/2	ANT 3	30.5	29.7	29.7	24.0	24.0	24.0	20.0	24.0	24.0	24.0	24.0
LTE Band 30	ANT 3	30.5	29.7	29.7	24.0	24.0	24.0	21.0	24.0	24.0	24.0	24.0
LTE Band 7	ANT 3	30.6	29.8	29.8	23.2	23.2	23.2	20.5	23.2	23.2	23.2	23.2
LTE Band 38	ANT 3	30.8	30.0	30.0	24.2	24.2	24.2	21.0	22.4	22.4	22.4	21.5
LTE Band 41(PC3)**	ANT 3	30.8	30.0	30.0	24.2	24.2	24.2	21.0	22.4	22.4	22.4	22.0
LTE Band 41(PC2)**	ANT 3	30.8	30.0	30.0	24.2	24.2	24.2	21.0	22.4	22.4	22.4	22.4
n71	ANT 1	33.0	32.2	32.2	31.9	30.2	30.2	27.2	24.2	24.2	24.2	24.2
n5	ANT 1	33.0	32.3	32.3	32.3	30.5	30.5	27.1	23.7	23.7	23.7	23.7
n66	ANT 3	31.2	30.4	30.4	24.2	24.2	24.2	20.2	24.2	24.2	24.2	24.2
n25/2	ANT 3	30.9	30.1	30.1	24.2	24.2	24.2	19.7	24.2	24.2	24.2	24.2
n30	ANT 3	30.5	29.7	29.7	24.2	24.2	24.2	20.2	24.2	24.2	24.2	24.2
n7	ANT 3	30.1	29.3	29.3	23.2	23.2	23.2	20.2	23.2	23.2	23.2	23.2
n38	ANT 3	30.8	30.0	30.0	23.7	23.7	23.7	21.7	23.7	23.7	23.7	23.7
n41(PC3)	ANT 3	30.8	30.0	30.0	26.2	26.2	26.2	21.7	26.2	26.2	26.2	23.2
n41(PC2)	ANT 3	30.8	30.0	30.0	26.2	26.2	26.2	21.7	26.2	26.2	26.2	26.2

Note:

1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1.0 dB uncertainty.

2) **All P_{limit} 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 & LTE TDD).

3) The max allowed output power is the P_{limit} + 1dB device uncertainty, and if P_{limit} is higher than P_{max}, the device output power will be P_{max} instead.

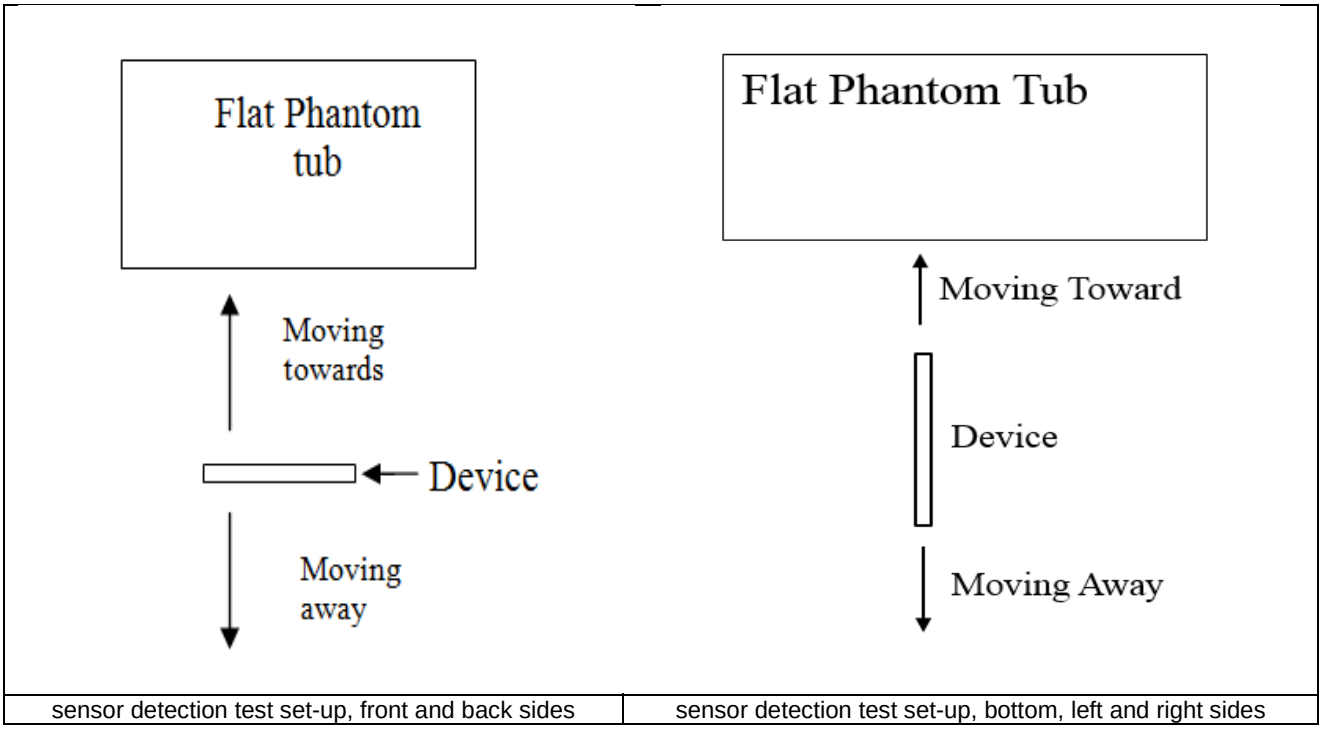
4) LTE B7/38/41/66-ant 5/ ant 6 only for EN-DC combination, and LTE B4-ant 5/ant 6 only for LTE inter-band uplink CA.

5) n41 ant5/6 only for MIMO mode.

6. Proximity Reduced Triggering Test

<Proximity Reduced Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according 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 (3980MHz) and lowest (835MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors 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 body at the front or back of the device.
3. The output power will reduce to body worn power level when top and bottom sensor pad be detected.
4. The device employs proximity sensors also can detect the presence of the user's body or a finger or hand when body or handheld state at the front/back/ bottom/left/right sides of the device. When front/back/bottom/left/right sides of body or handheld condition is detected reduced power will be active.
5. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed:



sensor detection test set-up, front and back sides	sensor detection test set-up, bottom, left and right sides

Proximity Sensor Triggering Distance (mm) for ANT1								
Position	Front		Back		Right Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	8	10	12	12	12	14	12	12

	Proximity Sensor Trigger Distance (mm) for ANT2/10			
Position	Back		Left Side	
Position	Moving towards	Moving away	Moving towards	Moving away
Minimum	13	15	7	8

	Proximity Sensor Trigger Distance (mm) for ANT5	
Position	Back	
Position	Moving towards	Moving away
Minimum	7	9

7. RF Exposure Limits

7.1 Uncontrolled Environment

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

7.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

8. Specific Absorption Rate (SAR)

8.1 Introduction

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

8.2 SAR Definition

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

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

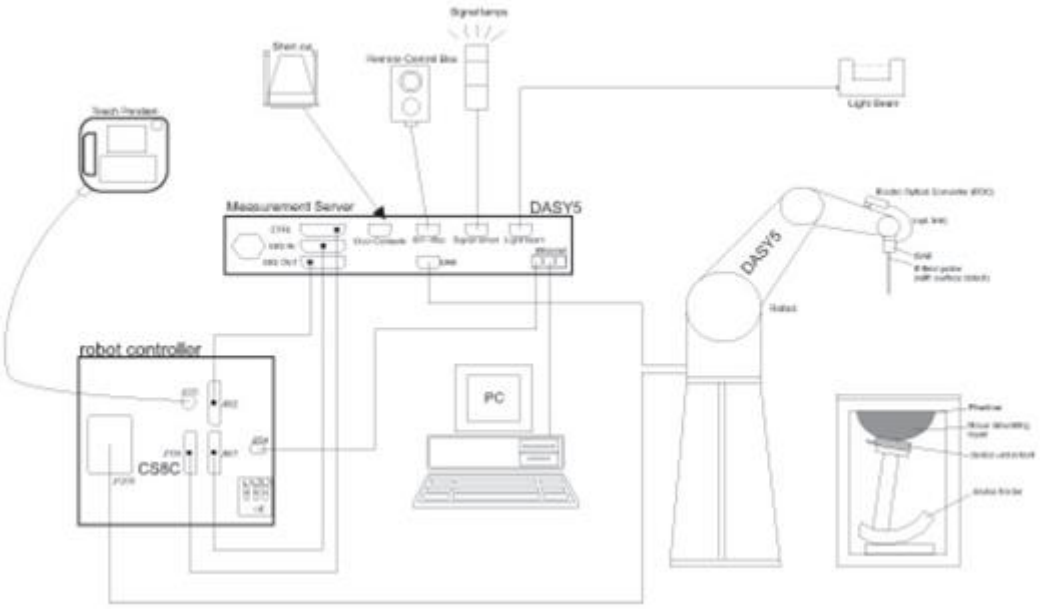
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

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>

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

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.

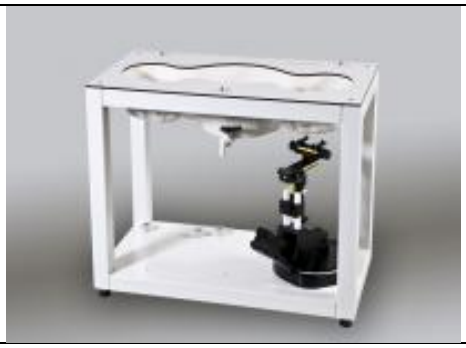
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

9.3 Phantom

<SAM Twin Phantom>

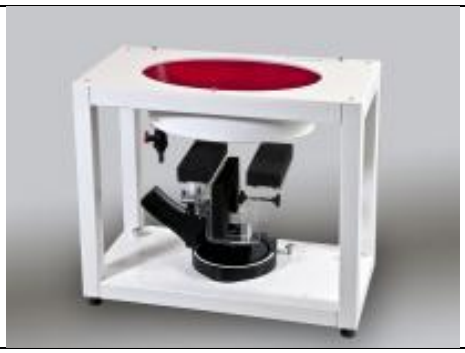
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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

<ELI Phantom>

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



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

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 form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from Reduced to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

10.2 Power Reference Measurement

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

10.3 Area Scan

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	½·δ·ln(2) ± 0.5 mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ the corresponding x or y dimension of the test device with at least one measurement point on the test device.	

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: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

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. 15, 2021	Dec. 14, 2022
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 16, 2022
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 19, 2021	Oct. 18, 2022
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 19, 2022
SPEAG	2300MHz System Validation Kit	D2300V2	1056	Oct. 20, 2021	Oct. 19, 2022
SPEAG	2450MHz System Validation Kit	D2450V2	924	Sep. 02, 2020	Sep. 01, 2023
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 19, 2022
SPEAG	3500MHz System Validation Kit	D3500V2	1076	May 09, 2022	May 08, 2023
SPEAG	3700MHz System Validation Kit	D3700V2	1037	May 09, 2022	May 08, 2023
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Jul. 11, 2019	Jul. 06, 2022
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 12, 2022
SPEAG	Data Acquisition Electronics	DAE4	715	Dec. 29, 2021	Dec. 28, 2022
SPEAG	Data Acquisition Electronics	DAE4	1664	May 30, 2022	May 29, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	May 30, 2022	May 29, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	7515	Dec. 28, 2021	Dec. 27, 2022
SPEAG	SAM Twin Phantom	QD 000 P40 CC	TP-1500	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1671	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201300653	Jul. 14, 2021	Jul. 13, 2022
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Radio communication analyzer	MT8821C	6272416837	Apr. 06, 2022	Apr. 05, 2023
Anritsu	Radio communication analyzer	MT8821C	6272416846	Apr. 06, 2022	Apr. 05, 2023
Anritsu	Radio communication analyzer	MT8821C	6272416863	Apr. 06, 2022	Apr. 05, 2023
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 14, 2021	Jul. 13, 2022
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 25, 2021	Oct. 24, 2022
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Jan. 24, 2022	Jan. 23, 2023
Agilent	Signal Generator	N5181A	MY50145381	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Power Senor	MA2411B	1306099	Sep. 29, 2021	Sep. 28, 2022
Anritsu	Power Meter	ML2495A	1349001	Sep. 29, 2021	Sep. 28, 2022
Anritsu	Power Sensor	MA2411B	1542004	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Power Meter	ML2495A	1339473	Dec. 28, 2021	Dec. 27, 2022
R&S	Power Sensor	NRP50S	101254	Apr. 07, 2022	Apr. 06, 2023
R&S	Power Sensor	NRP8S	109228	Apr. 07, 2022	Apr. 06, 2023
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 28, 2021	Dec. 27, 2022
R&S	Spectrum Analyzer	FSP7	100818	Jul. 14, 2021	Jul. 13, 2022
TES	Hygrometer	1310	200505600	Jul. 17, 2021	Jul. 16, 2022
Anymetre	Thermo-Hygrometer	JR593	2015030904	Jul. 17, 2021	Jul. 16, 2022
Anymetre	Thermo-Hygrometer	JR593	2018100802	Oct. 29, 2021	Oct. 28, 2022
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
mini-circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Weinschel	Attenuator 1	3M-10	N/A	Note 1	
Weinschel	Attenuator 2	3M-20	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. 12.1. 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. 12.2.

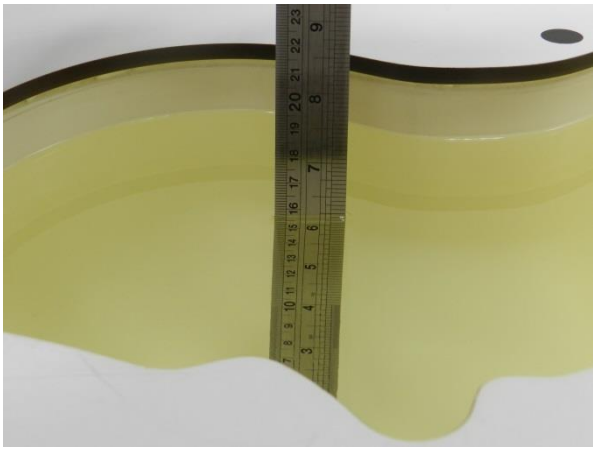


Fig 12.1Photo of Liquid Height for Head SAR

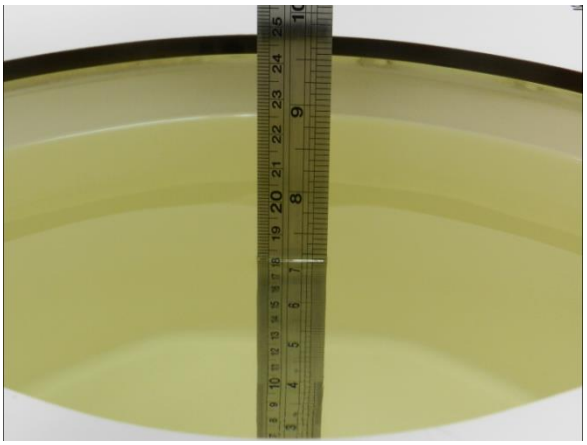


Fig 12.2 Photo of Liquid Height for Body SAR

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)
For Head								
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. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.2	0.882	40.803	0.89	41.90	-0.90	-2.62	±5	2022/6/11
750	Head	22.7	0.901	40.912	0.89	41.90	1.24	-2.36	±5	2022/6/18
835	Head	22.5	0.913	40.859	0.90	41.50	1.44	-1.54	±5	2022/6/13
835	Head	22.6	0.922	40.931	0.90	41.50	2.44	-1.37	±5	2022/6/9
1750	Head	22.6	1.407	41.718	1.37	40.10	2.70	4.03	±5	2022/6/15
1750	Head	22.4	1.420	41.813	1.37	40.10	3.65	4.27	±5	2022/6/10
1900	Head	22.4	1.455	40.068	1.40	40.00	3.93	0.17	±5	2022/6/17
1900	Head	22.5	1.438	40.101	1.40	40.00	2.71	0.25	±5	2022/6/7
2300	Head	22.6	1.604	40.037	1.67	39.50	-3.95	1.36	±5	2022/6/14
2300	Head	22.5	1.591	40.110	1.67	39.50	-4.73	1.54	±5	2022/6/12
2450	Head	22.4	1.871	38.124	1.80	39.20	3.94	-2.74	±5	2022/6/18
2450	Head	22.5	1.825	38.088	1.80	39.20	1.39	-2.84	±5	2022/6/9
2600	Head	22.3	1.935	38.814	1.96	39.00	-1.28	-0.48	±5	2022/6/20
2600	Head	22.6	1.909	38.790	1.96	39.00	-2.60	-0.54	±5	2022/6/8
3500	Head	22.7	2.909	38.635	2.91	37.90	-0.03	1.94	±5	2022/6/22
3500	Head	22.4	2.858	38.432	2.91	37.90	-1.79	1.40	±5	2022/6/14
3700	Head	22.6	3.048	37.958	3.12	37.70	-2.31	0.68	±5	2022/6/21
3700	Head	22.7	3.007	38.198	3.12	37.70	-3.62	1.32	±5	2022/6/10
3900	Head	22.4	3.208	37.743	3.33	37.51	-3.66	0.62	±5	2022/6/23
3900	Head	22.5	3.167	37.998	3.33	37.51	-4.89	1.30	±5	2022/6/12
5250	Head	22.3	4.587	35.144	4.71	35.95	-2.61	-2.24	±5	2022/6/24
5250	Head	22.6	4.744	36.854	4.71	35.95	0.72	2.51	±5	2022/6/20
5600	Head	22.5	4.929	34.655	5.07	35.50	-2.78	-2.38	±5	2022/6/25
5600	Head	22.3	5.182	36.105	5.07	35.50	2.21	1.70	±5	2022/6/21
5750	Head	22.6	5.069	34.382	5.22	35.35	-2.89	-2.74	±5	2022/6/26
5750	Head	22.4	5.357	35.815	5.22	35.35	2.62	1.32	±5	2022/6/22

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 (%)
2022/6/11	750	Head	250	1099	3819	715	2.260	8.54	9.04	5.85
2022/6/18	750	Head	250	1099	7515	1664	2.050	8.54	8.2	-3.98
2022/6/13	835	Head	250	4d162	3819	715	2.520	9.64	10.08	4.56
2022/6/9	835	Head	250	4d162	7515	1664	2.280	9.64	9.12	-5.39
2022/6/15	1750	Head	250	1137	3819	715	9.190	36.50	36.76	0.71
2022/6/10	1750	Head	250	1137	7515	1664	8.420	36.50	33.68	-7.73
2022/6/17	1900	Head	250	5d182	3819	715	10.400	39.60	41.6	5.05
2022/6/7	1900	Head	250	5d182	7515	1664	10.400	39.60	41.6	5.05
2022/6/14	2300	Head	250	1056	3819	715	12.200	48.80	48.8	0.00
2022/6/12	2300	Head	250	1056	7515	1664	11.800	48.80	47.2	-3.28
2022/6/18	2450	Head	250	924	3819	715	13.800	51.40	55.2	7.39
2022/6/9	2450	Head	250	924	7515	1664	12.600	51.40	50.4	-1.95
2022/6/20	2600	Head	250	1070	3819	715	13.300	56.20	53.2	-5.34
2022/6/8	2600	Head	250	1070	7515	1664	13.100	56.20	52.4	-6.76
2022/6/22	3500	Head	100	1076	3819	715	6.710	66.20	67.1	1.36
2022/6/14	3500	Head	100	1076	7515	1664	6.420	66.20	64.2	-3.02
2022/6/21	3700	Head	100	1037	3819	715	6.570	66.70	65.7	-1.50
2022/6/10	3700	Head	100	1037	7515	1664	6.540	66.70	65.4	-1.95
2022/6/23	3900	Head	100	1022	3819	715	6.800	70.50	68.0	-3.55
2022/6/12	3900	Head	100	1022	7515	1664	6.460	70.50	64.6	-8.37
2022/6/24	5250	Head	100	1341	3819	715	8.730	80.70	87.3	8.18
2022/6/20	5250	Head	100	1341	7515	1664	7.910	80.70	79.1	-1.98
2022/6/25	5600	Head	100	1341	3819	715	8.570	84.50	85.7	1.42
2022/6/21	5600	Head	100	1341	7515	1664	8.160	84.50	81.6	-3.43
2022/6/26	5750	Head	100	1341	3819	715	8.690	80.60	86.9	7.82
2022/6/22	5750	Head	100	1341	7515	1664	7.930	80.60	79.3	-1.61

<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 (%)
2022/6/11	750	Head	250	1099	3819	715	1.520	5.65	6.08	7.61
2022/6/18	750	Head	250	1099	7515	1664	1.370	5.65	5.48	-3.01
2022/6/13	835	Head	250	4d162	3819	715	1.640	6.26	6.56	4.79
2022/6/9	835	Head	250	4d162	7515	1664	1.480	6.26	5.92	-5.43
2022/6/15	1750	Head	250	1137	3819	715	4.860	19.20	19.44	1.25
2022/6/10	1750	Head	250	1137	7515	1664	4.460	19.20	17.84	-7.08
2022/6/17	1900	Head	250	5d182	3819	715	5.340	20.20	21.36	5.74
2022/6/7	1900	Head	250	5d182	7515	1664	5.350	20.20	21.4	5.94
2022/6/14	2300	Head	250	1056	3819	715	5.760	22.80	23.04	1.05
2022/6/12	2300	Head	250	1056	7515	1664	5.500	22.80	22.0	-3.51
2022/6/18	2450	Head	250	924	3819	715	6.390	24.00	25.56	6.50
2022/6/9	2450	Head	250	924	7515	1664	5.830	24.00	23.32	-2.83
2022/6/20	2600	Head	250	1070	3819	715	5.960	24.60	23.84	-3.09
2022/6/8	2600	Head	250	1070	7515	1664	5.740	24.60	22.96	-6.67
2022/6/22	3500	Head	100	1076	3819	715	2.520	25.50	25.2	-1.18
2022/6/14	3500	Head	100	1076	7515	1664	2.390	25.50	23.9	-6.27
2022/6/21	3700	Head	100	1037	3819	715	2.390	24.60	23.9	-2.85
2022/6/10	3700	Head	100	1037	7515	1664	2.350	24.60	23.5	-4.47
2022/6/23	3900	Head	100	1022	3819	715	2.490	24.60	24.9	1.22
2022/6/12	3900	Head	100	1022	7515	1664	2.300	24.60	23.0	-6.50
2022/6/24	5250	Head	100	1341	3819	715	2.470	23.10	24.7	6.93
2022/6/20	5250	Head	100	1341	7515	1664	2.240	23.10	22.4	-3.03
2022/6/25	5600	Head	100	1341	3819	715	2.430	24.00	24.3	1.25
2022/6/21	5600	Head	100	1341	7515	1664	2.290	24.00	22.9	-4.58
2022/6/26	5750	Head	100	1341	3819	715	2.430	22.70	24.3	7.05
2022/6/22	5750	Head	100	1341	7515	1664	2.250	22.70	22.5	-0.88

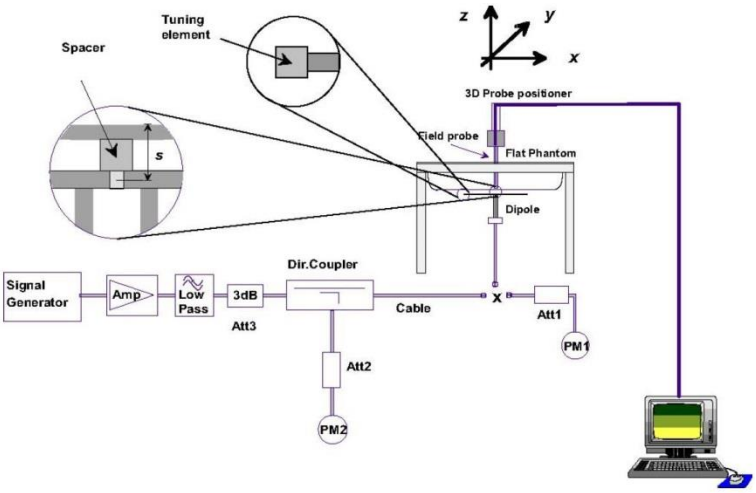


Fig 12.2.1 System Performance Check Setup

Fig 12.2.2 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.

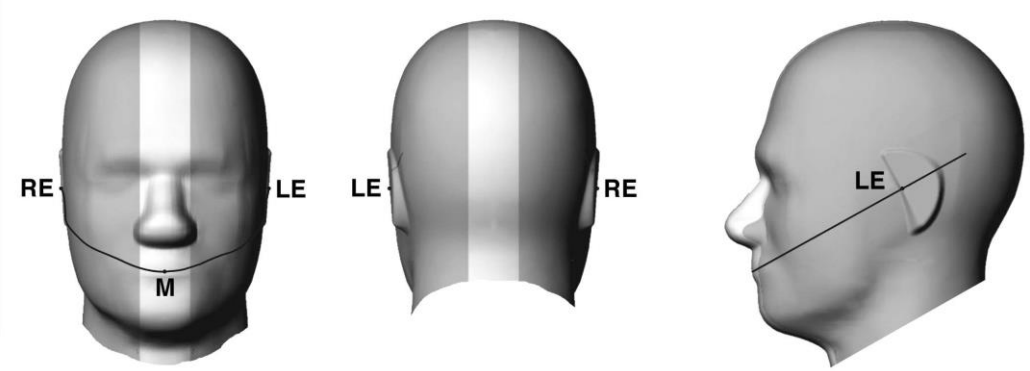


Fig 9.1.1 Front, back, and side views of SAM twin phantom

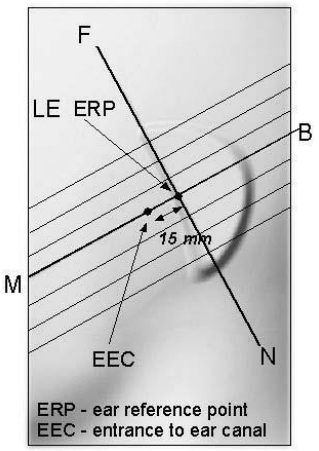


Fig 9.1.2 Close-up side view of phantom showing the ear region.

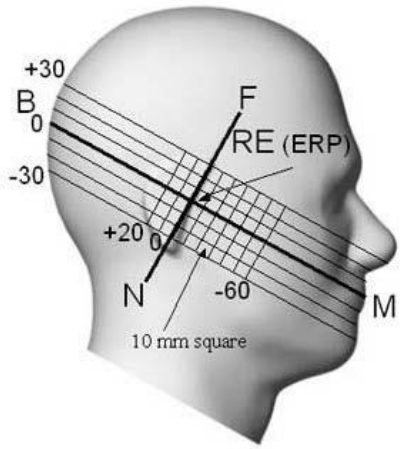


Fig 9.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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 wt 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 wb 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.

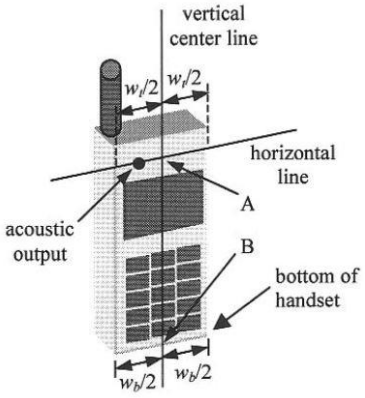


Fig 9.2.1 Handset vertical and horizontal reference lines—"fixed case

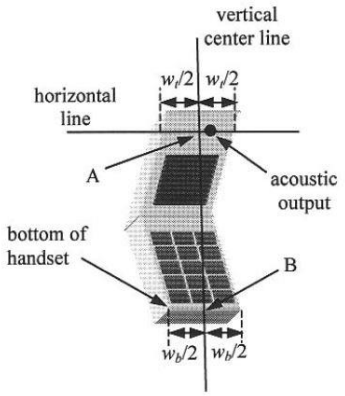


Fig 9.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

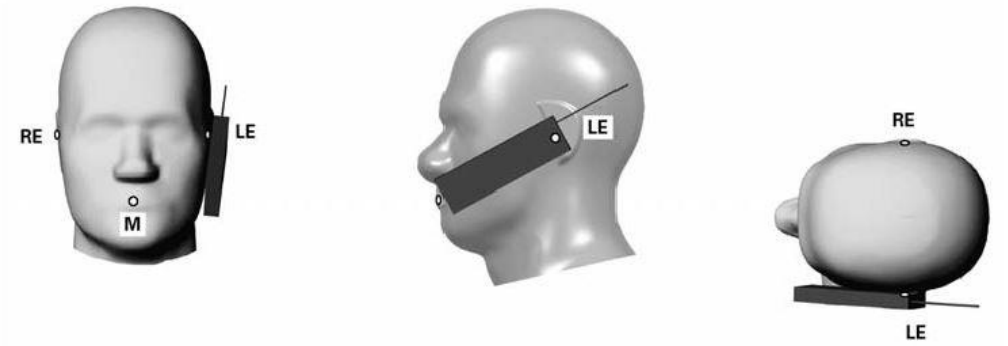


Fig 9.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

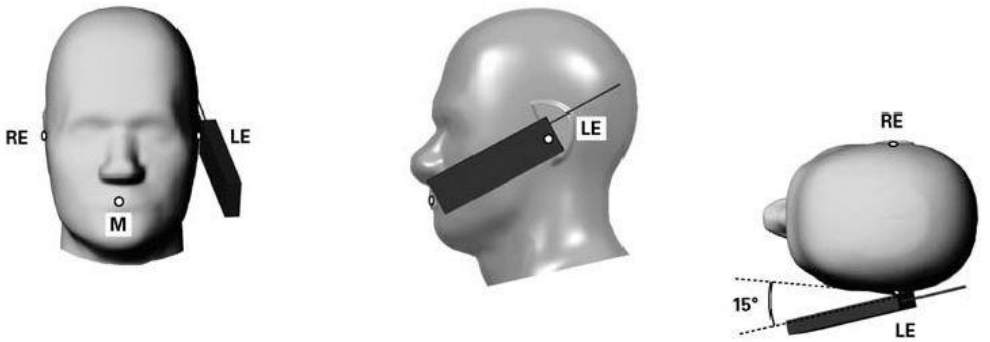


Fig 9.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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 D04 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 and those that do contain metallic components. When multiple accessories that do not contain metallic components are supplied with the device, the device is tested with only the accessory that dictates the closest spacing to the body. Then multiple accessories that contain metallic components are test with the device with each accessory. If multiple accessories share an identical metallic component (i.e. the same metallic belt-chip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

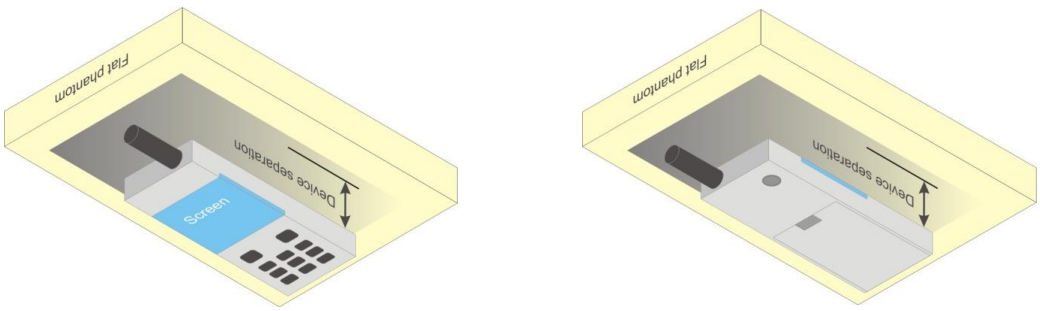


Fig 9.4 Body Worn Position

13.5 Product Specific Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm that provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets that support voice calls next to the ear, According to KDB648474 D04v01r03, the following phablet procedures should be applied to evaluate SAR compliance for each applicable wireless modes and frequency band. Devices marketed as phablets, regardless of form factors and operating characteristics must be tested as a phablet to determine SAR compliance

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

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

13.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 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 form 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 D04 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/LTE Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. For DTM multi-slot class mode, the device was linked with base station simulator (Agilent E5515C) and transmit maximum power on maximum number of TX slots, i.e. one CS timeslot, and additional PS timeslots (1 for DTM class 5 and 9, 2 for DTM class 11) in one TDMA frame.
2. Agilent E5515C was used to setup the device operated under DTM mode for power measurement and SAR testing. For conducted power, the power of the burst for voice and the power of the bursts for data was reported separately, and the frame-average power is derived below to determine SAR testing.
3. Per KDB 447498 D04, the maximum output power channel is used for SAR testing and for further SAR test reduction.
4. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE / DTM modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850 and GSM1900 are considered as the primary mode.
5. Other configurations of GSM / GPRS / EDGE / DTM are considered as secondary modes. Both primary and secondary modes must be in the same frequency band. 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 ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

<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 (β_c and β_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: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, 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: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_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, Δ_{ACK} and Δ_{NACK} = 30/15 with β_{hs} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{hs} = 24/15 * β_c.

Note 3: CM = 1 for β_c/β_d =12/15, β_{hs}/β_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 β_c/β_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 β_c = 11/15 and β_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 (β_c and β_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-TFCI
   viii. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
d. The transmitted maximum output power was recorded.

Table C.11.1.3: β values for transmitter characteristics tests with HS-DPCCH and E-DCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/225	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	$\beta_{ed}1$: 47/15 $\beta_{ed}2$: 47/15	4 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, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with β_{hs} = 5/15 * β_c.

Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_c=24/15. For all other combinations of DPDCH, DPCCH, HS- DPCCH, E-DPDCH and E-DPCCH the MPR is based on the relative CM difference.

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to β_c = 10/15 and β_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: β_{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 (β_c and β_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: β_c/β_d=2/15
      b). Subtest 2: β_c/β_d=12/15
      c). Subtest 3: β_c/β_d=15/8
      d). Subtest 4: β_c/β_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	Proces ses	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.		

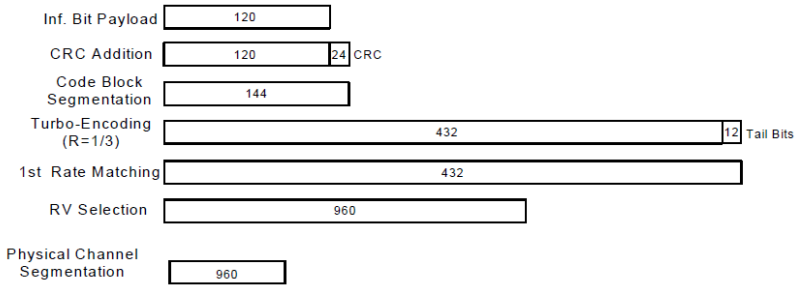


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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 (β_c and β_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 Parms
   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: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{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	β_{ed}1: 30/15 β_{ed}2: 30/15	β_{ed}3: 24/15 β_{ed}4: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_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 β_c is set to 1 and β_d = 0 by default.
Note 4: β_{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>

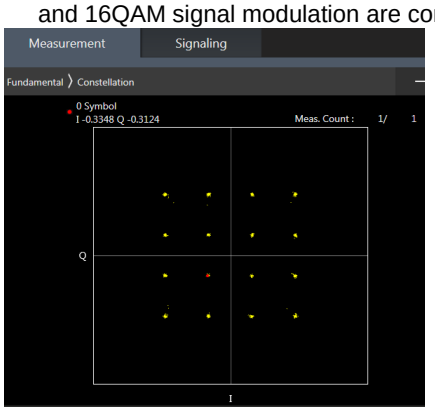
General Note:

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 ≤ ¼ 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 ≤ 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 ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+.

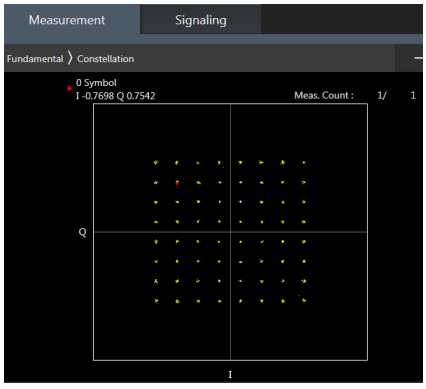
<LTE Conducted Power>

General Note:

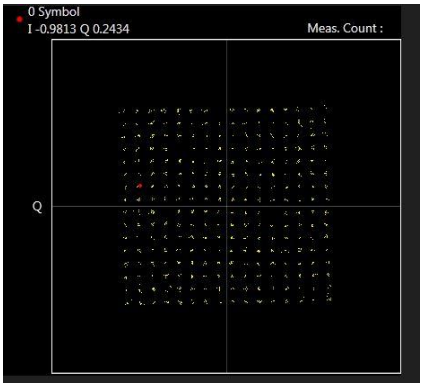
1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested 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 ≤ 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/64QAM/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
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 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41; 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 ≤ 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 16QAM and 64QAM, 256QAM 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 256QAM, 64QAM and 16QAM signal modulation are correct.



16QAM



64QAM



256QAM

<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.

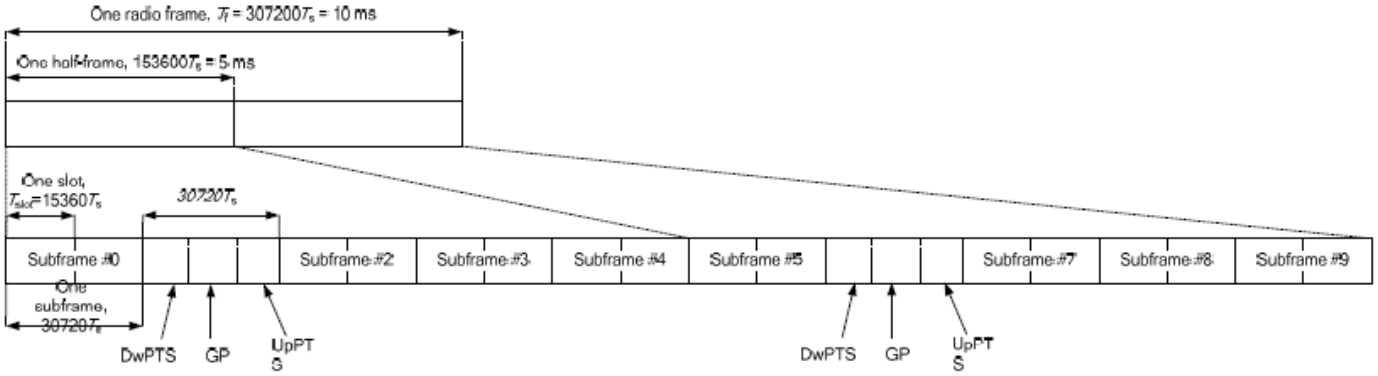


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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	$6592 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$	$7680 \cdot T_s$	$2192 \cdot T_s$	$2560 \cdot T_s$
1	$19760 \cdot T_s$			$20480 \cdot T_s$		
2	$21952 \cdot T_s$			$23040 \cdot T_s$		
3	$24144 \cdot T_s$			$25600 \cdot T_s$		
4	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

Special subframe (30720·T_s): 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_s): 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 subfames, 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 subfames, 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>

General Note:

1. This device supports Carrier Aggregation on downlink for inter and intra band. For the device supports bands and bandwidths and configurations are provided as follow table was according to 3GPP.
2. In applying the existing power measurement procedures of KDB 941225 D05A for DL CA SAR test exclusion, only the subset with the largest number of combinations of frequency bands and CCs in each row need combination, and for this device that all the configurations were choose to power measurement.
3. All permutations exist. No restrictions on Pcell & Scell combinations. Only LTE Band 46 is limited to Scell.
4. The gray color table is covered by other combinations and no need to verify power.

2CC Downlink Carrier Aggregation					3CC Downlink Carrier Aggregation					4CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_12A-30A	.		3CC-37	1	CA_12A-66A-66A	66A-66A		4CC-2	1	CA_25A-41D	25A-41D		
2	CA_12A-66A	66A		3CC-1	2	CA_12A-66C	66C		4CC-3	2	CA_2A-12A-66A-66A	2A-66A-66A		
3	CA_13A-46A	.	B46 SCC Only	3CC-38	3	CA_2A-12A-66A	2A-66A		4CC-4	3	CA_2A-12A-66C	2A-66C		
4	CA_13A-48A	48A		3CC-40	4	CA_2A-2A-12A	2A-2A		4CC-4	4	CA_2A-2A-12A-66A	2A-2A-66A		
5	CA_13A-66A	66A		3CC-43	5	CA_2A-2A-4A	2A-2A-4A		4CC-5	5	CA_2A-2A-4A-12A	2A-2A-4A		
6	CA_25A-25A	25A-25A			6	CA_2A-2A-66A	2A-2A-66A		4CC-7	6	CA_2A-2A-4A-71A	2A-2A-4A		
7	CA_25A-26A	25A			7	CA_2A-2A-71A	2A-2A		4CC-6	7	CA_2A-2A-66A-66A	2A-2A-66A-66A		
8	CA_25A-41A	25A-41A			8	CA_2A-46A-46A	2A	B46 SCC Only	4CC-10	8	CA_2A-2A-66A-71A	2A-2A-66A		
9	CA_2A-12A	2A		3CC-3	9	CA_2A-46A-48A	2A-48A	B46 SCC Only	4CC-12	9	CA_2A-2A-66C	2A-2A-66C		
10	CA_2A-13A	2A		3CC-48	10	CA_2A-46A-66A	2A-66A	B46 SCC Only	5CC-1	10	CA_2A-46A-46A-66A	2A-66A	B46 SCC Only	
11	CA_2A-2A	2A-2A		3CC-4	11	CA_2A-46C	2A	B46 SCC Only	7CC-2	11	CA_2A-46A-46C	2A	B46 SCC Only	5CC-1
12	CA_2A-30A	2A		3CC-52	12	CA_2A-48A-48A	2A-48A-48A		4CC-56	12	CA_2A-46A-48A-66A	2A-48A-66A	B46 SCC Only	
13	CA_2A-46A	2A	B46 SCC Only	3CC-8	13	CA_2A-48C	2A-48C		4CC-58	13	CA_2A-46A-48C	2A-48C	B46 SCC Only	5CC-3
14	CA_2A-48A	2A-48A		3CC-12	14	CA_2A-4A-12A	2A-4A		4CC-5	14	CA_2A-46C-48A	2A-48A	B46 SCC Only	5CC-5
15	CA_2A-4A	2A-4A		3CC-5	15	CA_2A-4A-4A	2A-4A-4A		4CC-17	15	CA_2A-46C-66A	2A-66A	B46 SCC Only	
16	CA_2A-5A	2A		3CC-18	16	CA_2A-4A-5A	2A-4A		4CC-51	16	CA_2A-46D	2A	B46 SCC Only	5CC-7
17	CA_2A-66A	2A-66A		3CC-6	17	CA_2A-4A-71A	2A-4A		4CC-6	17	CA_2A-4A-4A-12A	2A-4A-4A		
18	CA_2A-71A	2A		3CC-7	18	CA_2A-5A-66A	2A-66A		4CC-53	18	CA_2A-66A-66A-71A	2A-66A-66A		
19	CA_2C	2C		3CC-22	19	CA_2A-66A-66A	2A-66A-66A		4CC-18	19	CA_2A-66C-71A	2A-66C		
20	CA_30A-66A	66A		3CC-37	20	CA_2A-66A-71A	2A-66A		4CC-8	20	CA_2C-66A-66A	2C-66A-66A		
21	CA_41A-41A	41A-41A			21	CA_2A-66C	2A-66C		4CC-19	21	CA_46A-46C-66A	66A	B46 SCC Only	5CC-1
22	CA_41C	41C		3CC-23	22	CA_2C-66A	2C-66A		4CC-20	22	CA_46A-48C-66A	48C-66A	B46 SCC Only	5CC-3
23	CA_46A-66A	66A	B46 SCC Only	3CC-10	23	CA_41A-41C	41A-41C			23	CA_46C-48A-66A	48A-66A	B46 SCC Only	5CC-5
24	CA_48A-48A	48A-48A		3CC-12	24	CA_41D	41D		4CC-1	24	CA_46D-66A	66A	B46 SCC Only	5CC-8
25	CA_48A-66A	48A-66A		3CC-26	25	CA_46A-46A-66A	66A	B46 SCC Only	4CC-10	25	CA_48D-66A	48D-66A		5CC-21
26	CA_48C	48C		3CC-13	26	CA_46A-48A-66A	48A-66A	B46 SCC Only	4CC-12	26	CA_48E	48E		5CC-22
27	CA_4A-12A	4A		3CC-14	27	CA_46C-66A	66A	B46 SCC Only	4CC-15	27	CA_4A-46A-46C	4A	B46 SCC Only	
28	CA_4A-13A	4A		3CC-65	28	CA_48A-48A-66A	48A-48A-66A		4CC-32	28	CA_4A-46D	4A	B46 SCC Only	5CC-15
29	CA_4A-46A	4A	B46 SCC Only	3CC-31	29	CA_48C-66A	48C-66A		4CC-36	29	CA_12A-30A-66A-66A	66A-66A		
30	CA_4A-48A	4A-48A			30	CA_48D	48D		4CC-25	30	CA_13A-46C-66A	66A	B46 SCC Only	
31	CA_4A-4A	4A-4A		3CC-33	31	CA_4A-46A-46A	4A	B46 SCC Only		31	CA_13A-46D	.	B46 SCC Only	5CC-23
32	CA_4A-5A	4A		3CC-66	32	CA_4A-46C	4A	B46 SCC Only		32	CA_13A-48A-48A-66A	48A-48A-66A		5CC-24
33	CA_4A-71A	4A		3CC-34	33	CA_4A-4A-12A	4A-4A		4CC-17	33	CA_13A-48A-48C	48A-48C		5CC-18
34	CA_5A-30A	.		3CC-55	34	CA_4A-4A-71A	4A-4A			34	CA_13A-48A-66B	48A-66B		
35	CA_5A-46A	.	B46 SCC Only	3CC-56	35	CA_66A-66A-71A	66A-66A		4CC-18	35	CA_13A-48A-66C	48A-66C		
36	CA_5A-48A	48A		3CC-57	36	CA_66C-71A	66C		4CC-19	36	CA_13A-48C-66A	48C-66A		5CC-26
37	CA_5A-5A	.		3CC-73	37	CA_12A-30A-66A	66A		4CC-38	37	CA_13A-48D	48D		5CC-21
38	CA_5A-66A	66A		3CC-73	38	CA_13A-46A-66A	66A	B46 SCC Only		38	CA_2A-12A-30A-66A	2A-66A		
39	CA_5B	.		3CC-58	39	CA_13A-46C	.	B46 SCC Only	4CC-30	39	CA_2A-13A-46C	2A	B46 SCC Only	
40	CA_66A-66A	66A-66A		3CC-35	40	CA_13A-48A-48A	48A-48A		4CC-32	40	CA_2A-13A-48A-48A	2A-48A-48A		5CC-24
41	CA_66A-71A	66A		3CC-20	41	CA_13A-48A-66A	48A-66A		4CC-41	41	CA_2A-13A-48A-66A	2A-48A-66A		
42	CA_66B	66B		3CC-44	42	CA_13A-48C	48C		4CC-36	42	CA_2A-13A-48C	2A-48C		5CC-26
43	CA_66C	66C		3CC-36	43	CA_13A-66A-66A	66A-66A		4CC-43	43	CA_2A-13A-66A-66A	2A-66A-66A		5CC-29

44	CA_25A-46A	25A	B46 SCC Only		44	CA_13A-66B	66B		4CC-44	44	CA_2A-13A-66B	2A-66B		5CC-30
45	CA_2A-7A	2A-7A		3CC-82	45	CA_13A-66C	66C		4CC-45	45	CA_2A-13A-66C	2A-66C		
46	CA_4A-7A	4A-7A		3CC-83	46	CA_2A-12A-30A	2A		4CC-38	46	CA_2A-2A-12A-30A	2A-2A		
47	CA_5A-7A	7A		3CC-85	47	CA_2A-13A-46A	2A	B46 SCC Only		47	CA_2A-2A-13A-66A	2A-2A-66A		
48	CA_7A-12A	7A		3CC-83	48	CA_2A-13A-48A	2A-48A		4CC-40	48	CA_2A-2A-30A-66A	2A-2A-66A		
49	CA_7A-46A	7A	B46 SCC Only		49	CA_2A-13A-66A	2A-66A		4CC-43	49	CA_2A-2A-46C	2A-2A	B46 SCC Only	
50	CA_7A-7A	7A-7A		3CC-82	50	CA_2A-2A-13A	2A-2A		4CC-47	50	CA_2A-2A-4A-4A	2A-2A-4A-4A		
51	CA_7C	7C			51	CA_2A-2A-5A	2A-2A		4CC-52	51	CA_2A-2A-4A-5A	2A-2A-4A		
					52	CA_2A-30A-66A	2A-66A		4CC-38	52	CA_2A-2A-5A-30A	2A-2A		
					53	CA_2A-48A-66A	2A-48A-66A		6CC-4	53	CA_2A-2A-5A-66A	2A-2A-66A		5CC-32
					54	CA_2A-4A-13A	2A-4A			54	CA_2A-2A-66B	2A-2A-66B		
					55	CA_2A-5A-30A	2A		4CC-52	55	CA_2A-30A-66A-66A	2A-66A-66A		
					56	CA_2A-5A-46A	2A	B46 SCC Only		56	CA_2A-48A-48A-66A	2A-48A-48A-66A		
					57	CA_2A-5A-48A	2A-48A		4CC-65	57	CA_2A-48A-48C	2A-48A-48C		5CC-35
					58	CA_2A-5B	2A		4CC-70	58	CA_2A-48C-66A	2A-48C-66A		
					59	CA_2A-66B	2A-66B		4CC-54	59	CA_2A-48D	2A-48D		5CC-4
					60	CA_30A-66A-66A	66A-66A		4CC-55	60	CA_2A-48D-66A	2A-48D-66A		
					61	CA_48A-66A-66A	48A-66A-66A		4CC-71	61	CA_2A-4A-4A-5A	2A-4A-4A		
					62	CA_48A-66B	48A-66B		4CC-72	62	CA_2A-4A-5B	2A-4A		
					63	CA_48A-66C	48A-66C		4CC-73	63	CA_2A-5A-30A-66A	2A-66A		
					64	CA_4A-48C	4A-48C			64	CA_2A-5A-46C	2A	B46 SCC Only	
					65	CA_4A-4A-13A	4A-4A			65	CA_2A-5A-48A-66A	2A-48A-66A		
					66	CA_4A-4A-5A	4A-4A		4CC-61	66	CA_2A-5A-48C	2A-48C		5CC-40
					67	CA_4A-5B	4A		4CC-62	67	CA_2A-5A-66A-66A	2A-66A-66A		5CC-32
					68	CA_5A-30A-66A	66A		4CC-63	68	CA_2A-5A-66B	2A-66B		5CC-33
					69	CA_5A-46A-66A	66A	B46 SCC Only		69	CA_2A-5A-66C	2A-66C		5CC-34
					70	CA_5A-46C	.	B46 SCC Only	4CC-83	70	CA_2A-5B-66A	2A-66A		5CC-42
					71	CA_5A-48A-66A	48A-66A		4CC-65	71	CA_48A-48A-66A-66A	48A-48A-66A-66A		
					72	CA_5A-48C	48C		4CC-66	72	CA_48A-48A-66B	48A-48A-66B		
					73	CA_5A-5A-66A	66A		4CC-87	73	CA_48A-48A-66C	48A-48A-66C		
					74	CA_5A-66A-66A	66A-66A		4CC-67	74	CA_48A-48C-66A	48A-48C-66A		5CC-35
					75	CA_5A-66B	66B		4CC-68	75	CA_48A-48D	48A-48D		5CC-19
					76	CA_5A-66C	66C		4CC-69	76	CA_48C-48C	48C-48C		5CC-20
					77	CA_5B-46A	.	B46 SCC Only		77	CA_48C-66A-66A	48C-66A-66A		
					78	CA_5B-66A	66A		4CC-70	78	CA_48C-66B	48C-66B		5CC-46
					79	CA_66A-66C	66A-66C			79	CA_48C-66C	48C-66C		5CC-47
					80	CA_48A-48C	48A-48C		4CC-74	80	CA_4A-48D	4A-48D		
					81	CA_25A-46C	25A	B46 SCC Only		81	CA_4A-4A-5B	4A-4A		
					82	CA_2A-7A-7A	2A-7A-7A			82	CA_5A-30A-66A-66A	66A-66A		
					83	CA_4A-7A-12A	4A-7A			83	CA_5A-46C-66A	66A	B46 SCC Only	
					84	CA_4A-7A-7A	4A-7A-7A			84	CA_5A-46D	.	B46 SCC Only	
					85	CA_5A-7A-7A	7A-7A		4CC-96	85	CA_5A-48C-66A	48C-66A		
					86	CA_7A-46C	7A	B46 SCC Only		86	CA_5A-48D	48D		
					87	CA_2A-2A-30A	2A-2A		4CC-48	87	CA_5A-5A-66A-66A	66A-66A		
					88	CA_4A-4A-7A	4A-4A-7A			88	CA_5A-5A-66B	66B		
										89	CA_5A-5A-66C	66C		
										90	CA_5B-46C	.	B46 SCC Only	5CC-39
										91	CA_5B-66A-66A	66A-66A		5CC-42
										92	CA_5B-66B	66B		5CC-43
										93	CA_5B-66C	66C		5CC-44
										94	CA_25A-46D	25A	B46 SCC Only	
										95	CA_5A-7A-66A-66A	7A-66A-66A		
										96	CA_41C-41C	41C-41C		
										97	CA_41E	41E		

5CC Downlink Carrier Aggregation					6CC Downlink Carrier Aggregation				
Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Restriction	Covered by Measurement Superset
1	CA_2A-46A-46C-66A	2A-66A	B46 SCC Only		1	CA_13A-48E-66A	66A, 48E		
2	CA_2A-46A-46D	2A	B46 SCC Only		2	CA_2A-46A-48D-66A	2A-66A, 2A-48D, 48D-66A	B46 SCC Only	
3	CA_2A-46A-48C-66A	2A-48C-66A	B46 SCC Only		3	CA_2A-46C-48C-66A	2A-48C-66A	B46 SCC Only	
4	CA_2A-46A-48D	2A-48D	B46 SCC Only	6CC-1	4	CA_2A-46D-48A-66A	2A-48A-66A	B46 SCC Only	
5	CA_2A-46C-48A-66A	2A-48A-66A	B46 SCC Only		5	CA_2A-46E-66A	2A-66A	B46 SCC Only	7CC-6
6	CA_2A-46C-48C	2A-48C	B46 SCC Only	6CC-3	6	CA_2A-48E-66A	48E, 2A-66A		
7	CA_2A-46D-48A	2A-48A	B46 SCC Only	6CC-4					
8	CA_2A-46D-66A	2A-66A	B46 SCC Only						
9	CA_2A-46E	2A	B46 SCC Only	6CC-5					
10	CA_46A-46D-66A	66A	B46 SCC Only						
11	CA_46A-48D-66A	48D-66A	B46 SCC Only	6CC-2					
12	CA_46C-48C-66A	48C-66A	B46 SCC Only	6CC-3					
13	CA_46D-48A-66A	48A-66A	B46 SCC Only	6CC-3					
14	CA_46E-66A	66A	B46 SCC Only	6CC-5					
15	CA_4A-46A-46D	4A	B46 SCC Only						
16	CA_13A-46D-66A	66A	B46 SCC Only						
17	CA_13A-46E	.	B46 SCC Only						
18	CA_13A-48A-48C-66A	48A-48C-66A							
19	CA_13A-48A-48D	48A-48D							
20	CA_13A-48C-48C	48C-48C							
21	CA_13A-48D-66A	48D-66A							
22	CA_13A-48E	48E		6CC-1					
23	CA_2A-13A-46D	2A	B46 SCC Only						
24	CA_2A-13A-48A-48A-66A	2A-48A-48A-66A							
25	CA_2A-13A-48A-48C	2A-48A-48C							
26	CA_2A-13A-48C-66A	2A-48C-66A							
27	CA_2A-13A-48D	2A-48D							
28	CA_2A-13A-66A-66B	2A-66A-66B							
29	CA_2A-2A-13A-66A-66A	2A-2A-66A-66A							
30	CA_2A-2A-13A-66B	2A-2A-66B							
31	CA_2A-2A-46D	2A-2A	B46 SCC Only						
32	CA_2A-2A-5A-66A-66A	2A-2A-66A-66A							
33	CA_2A-2A-5A-66B	2A-2A-66B							
34	CA_2A-2A-5A-66C	2A-2A-66C							
35	CA_2A-48A-48C-66A	2A-48A-48C-66A							
36	CA_2A-48A-48D	2A-48A-48D							
37	CA_2A-48C-48C	2A-48C-48C							
38	CA_2A-48E	2A-48E		6CC-6					
39	CA_2A-5A-46D	2A	B46 SCC Only						
40	CA_2A-5A-48C-66A	2A-48C-66A							
41	CA_2A-5A-48D	2A-48D							
42	CA_2A-5B-66A-66A	2A-66A-66A							
43	CA_2A-5B-66B	2A-66B							
44	CA_2A-5B-66C	2A-66C							
45	CA_46D-66A-66A	66A-66A	B46 SCC Only						
46	CA_48A-48C-66B	48A-48C-66B							
47	CA_48A-48C-66C	48A-48C-66C							
48	CA_48A-48D-66A	48A-48D-66A							
49	CA_48A-48E	48A-48E							
50	CA_48C-48C-66A	48C-48C-66A							
51	CA_48C-48D	48C-48D							
52	CA_48E-66A	48E-66A		7CC-7					

53	CA_4A-48E	4A-48E		6CC-1					
54	CA_5A-46D-66A	66A	B46 SCC Only						
55	CA_5A-46E	.	B46 SCC Only						
56	CA_5A-48D-66A	48D-66A							
57	CA_5B-46D	.	B46 SCC Only						
58	CA_41C-41D	41C-41D							

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

LTE Carrier Aggregation Conducted Power (Downlink)

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 seven 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 inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.

vi. 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.

vii. 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.

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Bands 2/4/7/25/38/41/48/66 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

Per FCC Guidance, SAR for downlink 4x4 MIMO was not needed since the maximum average output power in 4x4 downlink MIMO mode was not > 0.25 dB higher than the maximum output power with downlink 4x4 MIMO inactive. When carrier aggregation is applicable, power measurements were performed with the downlink carrier aggregation and 4x4 DL MIMO active for the configuration with highest measured maximum conducted power with downlink carrier aggregation inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

4X4 MIMO	Band
	LTE Band2/4/7/25/38/41/48/66

LTE Carrier Aggregation Conducted Power (Uplink)

2CC Uplink Carrier Aggregation		
Number	Combination	Ant No.
1	7C	ANT2/3
2	38C	ANT2/3
3	41C	ANT2/3
4	48C	ANT5/10

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/B38/B41/B48 with a maximum of two 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. The device supports uplink carrier aggregation with a maximum of two 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 the 3GPP requirement.

iii. 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.

iv. 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>

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Combination	Band&Ant No.	Band&Ant No.
CA_2A-4A	LTE B2: ANT3/2	LTE B4: ANT5/6
CA_2A-5A	LTE B2: ANT3/2	LTE B5: ANT1/0
CA_2A-12A	LTE B2: ANT3/2	LTE B12: ANT1/0
CA_2A-13A	LTE B2: ANT3/2	LTE B13: ANT1/0
CA_2A-66A	LTE B2: ANT3/2	LTE B66: ANT5/6
CA_4A-5A	LTE B4: ANT3/2	LTE B5: ANT1/0
CA_4A-12A	LTE B4: ANT3/2	LTE B12: ANT1/0
CA_5A-66A	LTE B5: ANT1/0	LTE B66: ANT3/2
CA_12A-66A	LTE B12: ANT1/0	LTE B66: ANT3/2
CA_13A-66A	LTE B13: ANT1/0	LTE B66: ANT3/2

General Note:

1. 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.
2. For LTE inter band CA mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. Smart Transmit algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit. In Part 1 Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

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

General Note:

1. 5G NR n2 / n5 / n7 / n25 / n30 / n38 / n41 / n66 / n71 / n77 is SA mode.
2. 5G NR n2 / n5 / n7 / n25 / n30 / n41 / n66 / n71 / n77 is NSA mode.
3. 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 ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 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/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. 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
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. 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.
5. 5G NR n41 supports UL MIMO at Antenna 3 and Antenna 5, Antenna 2 and Antenna 6.
6. 5G NR n41 and n77 supports HPUE, HPUE power and SAR testing performed separately.
7. 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 SAR can represent NSA mode SAR.
8. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
9. 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.
10. 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.

<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	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 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	≤ 3.5	≤ 0.5	0
	QPSK	≤ 3.5	≤ 1	0
	16 QAM	≤ 3.5	≤ 2	≤ 1
	64 QAM	≤ 3.5	≤ 2.5	
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3.5	≤ 3	≤ 1.5
	16 QAM	≤ 3.5	≤ 3	≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

<Inter Band EN-DC Configuration>

FR 1	ENDC	4G UL	5G-NR UL
n2	DC_5A_n2A	ANT1/0	ANT3/2
	DC_12A_n2A	ANT1/0	ANT3/2
	DC_13A_n2A	ANT1/0	ANT3/2
	DC_66A_n2A	ANT5/6	ANT3/2
n5	DC_2A_n5A	ANT3/2	ANT1/0
	DC_7A_n5A	ANT3/2	ANT1/0
	DC_30A_n5A	ANT3/2	ANT1/0
	DC_48A_n5A	ANT5/10	ANT1/0
	DC_66A_n5A	ANT3/2	ANT1/0
n7	DC_5A_n7A	ANT1/0	ANT3/2
	DC_66A_n7A	ANT5/6	ANT3/2
n25	DC_66A_n25A	ANT5/6	ANT3/2
n30	DC_5A_n30A	ANT1/0	ANT3/2
	DC_12A_n30A	ANT1/0	ANT3/2
	DC_66A_n30A	ANT5/6	ANT3/2
n41	DC_2A_n41A	ANT3/2	ANT5/6
	DC_25A_n41A	ANT3/2	ANT5/6
	DC_26A_n41A	ANT1/0	ANT3/2
	DC_66A_n41A	ANT3/2	ANT5/6
n66	DC_2A_n66A	ANT3/2	ANT5/6
	DC_5A_n66A	ANT1/0	ANT3/2
	DC_7A_n66A	ANT5/6	ANT3/2
	DC_12A_n66A	ANT1/0	ANT3/2
	DC_13A_n66A	ANT1/0	ANT3/2
	DC_30A_n66A	ANT3/2	ANT5/6
n71	DC_2A_n71A	ANT3/2	ANT1/0
	DC_66A_n71A	ANT3/2	ANT1/0
n77	DC_5A_n77A	ANT1/0	ANT5/10
	DC_7A_n77A	ANT6/5	ANT5/10
	DC_12A_n77A	ANT1/0	ANT5/10
	DC_13A_n77A	ANT1/0	ANT5/10
	DC_66A_n77A	ANT6/5	ANT5/10

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

General Note:

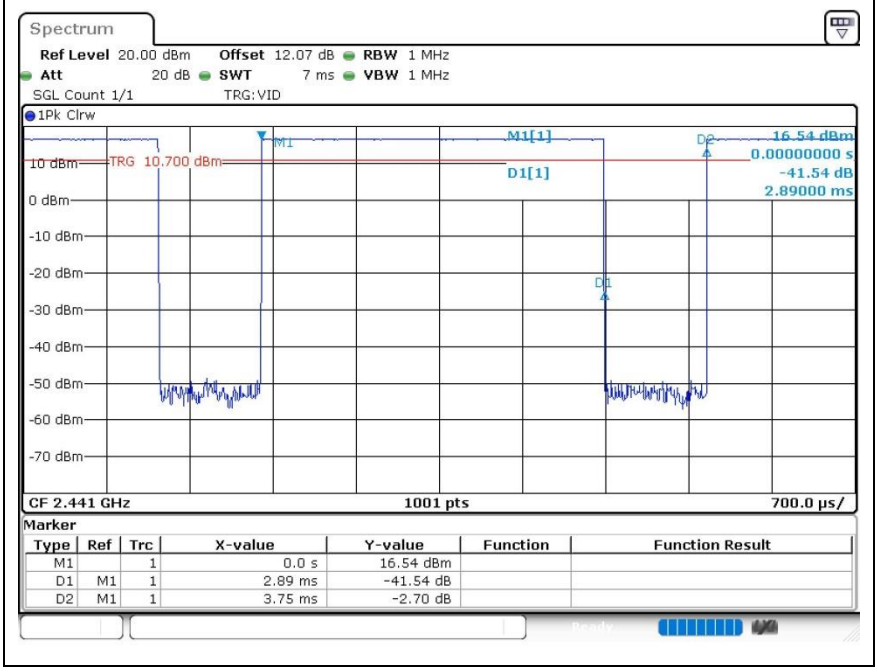
1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. 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 ≤ 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 ≤ 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 ≤ 1.2 W/kg or all required channels are tested.
5. 802.11ax supports full tone size and partial tone size, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
6. The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO antenna mode.

<2.4GHz Bluetooth>

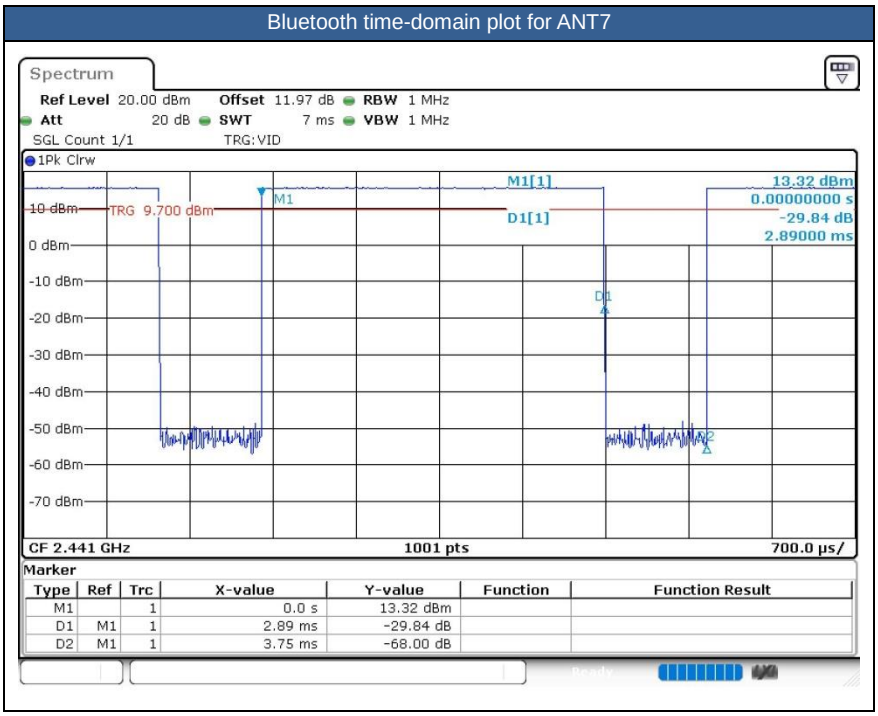
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 77.07 % for ANT4/ANT7 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 to100% for Bluetooth reported SAR calculation

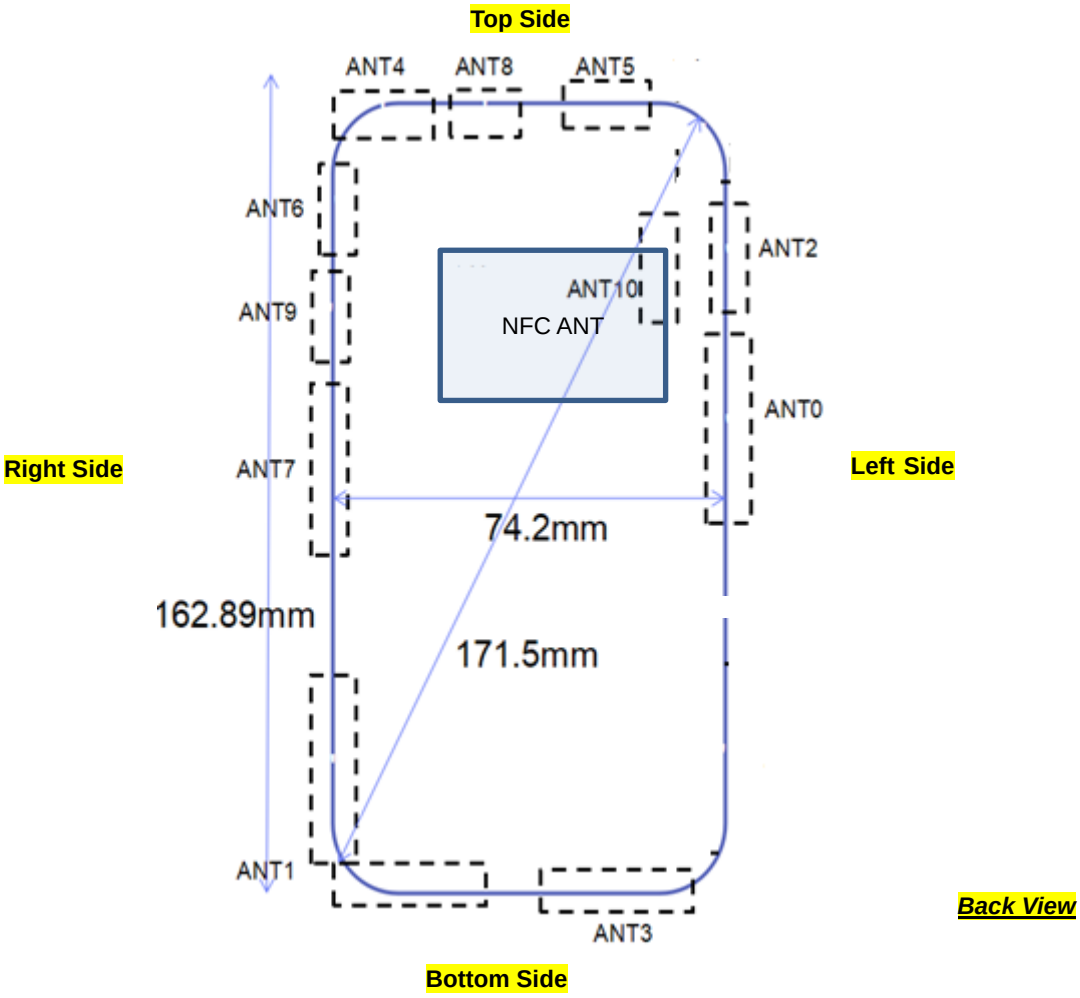
Bluetooth time-domain plot for ANT4



Bluetooth time-domain plot for ANT7



17. Antenna Location



Antenna	Support Band
Antenna 0	GSM850<TX/RX> WCDMA B5 <TX/RX> LTE B5/12/13/17/26/71<TX/RX> NR: n5/n71<TX/RX>
Antenna 1	GSM850<TX/RX> WCDMA B5 <TX/RX> LTE B5/12/13/17/26/71<TX/RX> NR: n5/n71<TX/RX>
Antenna 2	GSM1900<TX/RX> WCDMA B2/B4<TX/RX> LTE B2/4/7/25/30/38/41/66<TX/RX> NR: n2/n7/n25/n30/n38/n41/n66<TX/RX>
Antenna 3	GSM1900<TX/RX> WCDMA B2/B4<TX/RX> LTE B2/4/7/25/30/38/41/66<TX/RX> NR: n2/n7/n25/n30/n38/n41/n66<TX/RX>
Antenna 4	WIFI 2.4G/Bluetooth chain0 <TX/RX>
Antenna 5	LTE B4/7/66/38/41/48 <TX/RX> NR: n77/n41/n66 <TX/RX>
Antenna 6	LTE B4/7/66/38/41 <TX/RX> NR: n41/n66 <TX/RX>
Antenna 7	WIFI 2.4G/Bluetooth Chain 1<TX/RX>
Antenna 8	WIFI 5G chain0 <TX/RX
Antenna 9	WIFI 5G chain1 <TX/RX>
Antenna 10	LTE B48 <TX/RX> NR: n77 <TX/RX>
NFC Antenna	NFC<TX/RX>

Note:

1. 5GNR n66-ant 5/ ant 6 only for NSA mode.
2. LTE B7/38/41/66-ant 5/ ant 6 only for EN-DC combination, and LTE B4-ant 5/ant 6 only for LTE inter-band uplink CA.

Distance of the Antenna to the EUT surface/edge						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
Antenna 0	≤ 25mm	≤ 25mm	>25mm	>25mm	>25mm	≤ 25mm
Antenna 1	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	≤ 25mm	>25mm
Antenna 2	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	>25mm	≤ 25mm
Antenna 3	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm	≤ 25mm
Antenna 4	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
Antenna 5	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	>25mm	≤ 25mm
Antenna 6	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
Antenna 7	≤ 25mm	≤ 25mm	>25mm	>25mm	≤ 25mm	>25mm
Antenna 8	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
Antenna 9	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	≤ 25mm	>25mm
Antenna 10	≤ 25mm	≤ 25mm	≤ 25mm	>25mm	>25mm	≤ 25mm

Positions for SAR tests; Hotspot mode						
Antennas	Back	Front	Top Side	Bottom Side	Right Side	Left Side
Antenna 0	Yes	Yes	No	No	No	Yes
Antenna 1	Yes	Yes	No	Yes	Yes	No
Antenna 2	Yes	Yes	Yes	No	No	Yes
Antenna 3	Yes	Yes	No	Yes	No	Yes
Antenna 4	Yes	Yes	Yes	No	Yes	No
Antenna 5	Yes	Yes	Yes	No	No	Yes
Antenna 6	Yes	Yes	Yes	No	Yes	No
Antenna 7	Yes	Yes	No	No	Yes	No
Antenna 8	Yes	Yes	Yes	No	Yes	No
Antenna 9	Yes	Yes	Yes	No	Yes	No
Antenna 10	Yes	Yes	Yes	No	No	Yes

General Note:

1. Referring to KDB 941225 D06 v02r01, when the overall device length and width are ≥ 9cm*5cm, 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

18. SAR Test Results

General Note:

1. Per KDB 447498 D04, 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 of power class 3, 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 (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
   f. For TDD LTE SAR measurement of power class 2, 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 reported TDD LTE SAR (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D04, 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. 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.
5. 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. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi antennas accordingly. Details about the power management decision and sensor detection are provided in the operational description. Power table (DSI 5/10/15: receiver on head power, DSI 17: hotspot on power, DSI 1/6/11: P-sensor on body for ANT2/5/10, DSI 2/7/12: P-sensor on body for ANT1, DSI 4/9/14: Receiver off/sensor off for body).
6. For WLAN/BT when transmit simultaneous with WWAN, power reduction will be activated to head, hotspot, body-worn and extremity.
7. LTE band 41, 5GNR n41/n77 supports HPUE, HPUE power and SAR testing performed separately.
8. 5G NR n41 supports UL MIMO at Antenna 3 and Antenna 5, Antenna 2 and Antenna 6.
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. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
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. 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 II/IV/V, LTE B2/4/7/13/25/30/38/41/48/66, 5G NR n2/n7/n25/n30/n38/n41/n66/n77 is required to be tested.

15. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
16. 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.

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE / DTM modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested. Therefore, the GPRS (4Tx slots) for GSM850 and GSM1900 are considered as the primary mode.
2. Other configurations of GSM / GPRS / EDGE / DTM are considered as secondary modes. Both primary and secondary modes must be in the same frequency band. 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 ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for the secondary mode.

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 ≤ ¼ 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 ≤ 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 ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+.

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, For QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, Smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE 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 2/4/5/17/38 SAR test was covered by Band 25/66/26/12/41; 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 ≤ 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:
   a. 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.
   b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in PI/2 BPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM/64QAM/256QAM SAR testing are not required.
   e. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
   f. This device supports both 5G NR n2/n38 and 5G NR n25/n41. Since the supported frequency span for 5G NR n2/n38 falls completely within the supports frequency span for 5G NR n25/n41, both NR bands have the same target power, and both NR bands share the same transmission path; therefore, SAR was only assessed for 5G NR n25/n41.
   g. For 5G FR1 n5/n7/n25/n38/n41/n66/n71/n77 the maximum bandwidth does not support three non-overlapping channels, 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.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 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 ≤ 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 ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
6. 802.11ax supports full tone size and partial tone size, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
7. The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO antenna mode.
8. When the single antenna RF power in MIMO mode is less than the single antenna RF power in SISO mode, SAR testing was performed on SISO mode, for MIMO SAR based on standalone SAR to be summed together as MIMO SAR; when the single antenna RF power in MIMO mode is larger than the single antenna RF power in SISO mode, SAR testing was performed on dual antenna.

18.1 Head SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 0	DSI5	189	836.4	27.08	28.00	1.236	0.02	0.330	0.408
	GSM850	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 0	DSI5	189	836.4	27.08	28.00	1.236	0.05	0.071	0.088
01	GSM850	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 0	DSI5	189	836.4	27.08	28.00	1.236	0.06	0.853	**1.054**
	GSM850	DTM Multi-slot class 9	Left Cheek	0mm	Ant 0	DSI5	189	836.4	24.55	24.98	1.104	0.01	0.801	0.884
	GSM850	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 0	DSI5	189	836.4	27.08	28.00	1.236	0.03	0.101	0.125
	GSM850	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 0	DSI5	128	824.2	27.03	28.00	1.250	0.07	0.667	0.834
	GSM850	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 0	DSI5	251	848.8	27.01	28.00	1.256	0.03	0.756	0.950
	GSM850	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 0	DSI10/15	189	836.4	24.61	26.00	1.377	0.11	0.143	0.197
	GSM850	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 0	DSI10/15	189	836.4	24.61	26.00	1.377	0.01	0.040	0.055
	GSM850	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 0	DSI10/15	189	836.4	24.61	26.00	1.377	0.01	0.485	0.668
	GSM850	DTM Multi-slot class 9	Left Cheek	0mm	Ant 0	DSI10/15	189	836.4	22.48	22.98	1.122	-0.04	0.426	0.478
	GSM850	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 0	DSI10/15	189	836.4	24.61	26.00	1.377	0.02	0.044	0.061
	GSM850	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 0	DSI10/15	128	824.2	24.41	26.00	1.442	0.07	0.297	0.428
	GSM850	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 0	DSI10/15	251	848.8	24.25	26.00	1.496	0.04	0.341	0.510
	GSM850	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 1	DSI5/10/15	189	836.4	27.07	28.00	1.239	0.08	0.118	0.146
	GSM850	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 1	DSI5/10/15	189	836.4	27.07	28.00	1.239	0.12	0.063	0.078
	GSM850	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 1	DSI5/10/15	189	836.4	27.07	28.00	1.239	0.08	0.072	0.089
	GSM850	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 1	DSI5/10/15	189	836.4	27.07	28.00	1.239	0.06	0.033	0.041
	GSM850	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 1	DSI5/10/15	128	824.2	27.04	28.00	1.247	0.02	0.313	0.390
	GSM850	DTM Multi-slot class 9	Right Cheek	0mm	Ant 1	DSI5/10/15	128	824.2	24.40	24.98	1.143	-0.02	0.302	0.345
	GSM850	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 1	DSI5/10/15	251	848.8	26.95	28.00	1.274	0.03	0.132	0.168
	GSM1900	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 2	DSI5/10/15	661	1880	18.65	19.50	1.216	0.06	0.371	0.451
	GSM1900	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 2	DSI5/10/15	661	1880	18.65	19.50	1.216	0.05	0.171	0.208
	GSM1900	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 2	DSI5/10/15	661	1880	18.65	19.50	1.216	0.01	0.156	0.190
	GSM1900	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 2	DSI5/10/15	661	1880	18.65	19.50	1.216	0.06	0.084	0.102
	GSM1900	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 2	DSI5/10/15	512	1850.2	18.45	19.50	1.274	0.03	0.440	0.560
02	GSM1900	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 2	DSI5/10/15	810	1909.8	18.17	19.50	1.358	0.07	0.549	**0.746**
	GSM1900	DTM Multi-slot class 9	Right Cheek	0mm	Ant 2	DSI5/10/15	810	1909.8	15.53	16.48	1.245	0.01	0.512	0.637
	GSM1900	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	DSI5/10/15	512	1850.2	24.30	25.00	1.175	0.06	0.101	0.119
	GSM1900	GPRS(4 Tx slots)	Right Tilted	0mm	Ant 3	DSI5/10/15	512	1850.2	24.30	25.00	1.175	0.02	0.064	0.075
	GSM1900	GPRS(4 Tx slots)	Left Cheek	0mm	Ant 3	DSI5/10/15	512	1850.2	24.30	25.00	1.175	0.01	0.081	0.095
	GSM1900	GPRS(4 Tx slots)	Left Tilted	0mm	Ant 3	DSI5/10/15	512	1850.2	24.30	25.00	1.175	0.12	0.055	0.065
	GSM1900	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	DSI5/10/15	661	1880	24.15	25.00	1.216	0.05	0.108	0.131
	GSM1900	DTM Multi-slot class 9	Right Cheek	0mm	Ant 3	DSI5/10/15	661	1880	20.63	21.98	1.365	-0.09	0.093	0.127
	GSM1900	GPRS(4 Tx slots)	Right Cheek	0mm	Ant 3	DSI5/10/15	810	1909.8	24.01	25.00	1.256	0.01	0.074	0.093

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI5	4182	836.4	22.17	23.00	1.211	0.11	0.267	0.323
	WCDMA V	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI5	4182	836.4	22.17	23.00	1.211	0.05	0.056	0.068
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI5	4182	836.4	22.17	23.00	1.211	0.1	0.715	0.866
	WCDMA V	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI5	4182	836.4	22.17	23.00	1.211	0.06	0.087	0.105
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI5	4132	826.4	22.04	23.00	1.247	0.02	0.396	0.494
03	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI5	4233	846.6	22.08	23.00	1.236	0.04	0.755	**0.933**
	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI10/15	4182	836.4	20.11	21.00	1.227	0.08	0.167	0.205
	WCDMA V	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI10/15	4182	836.4	20.11	21.00	1.227	0.01	0.040	0.049
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI10/15	4182	836.4	20.11	21.00	1.227	0.03	0.412	0.506
	WCDMA V	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI10/15	4182	836.4	20.11	21.00	1.227	0.08	0.053	0.065
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI10/15	4132	826.4	20.06	21.00	1.242	0.05	0.230	0.286
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI10/15	4233	846.6	19.96	21.00	1.271	0.03	0.394	0.501
	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI5/10/15	4182	836.4	24.11	25.00	1.227	-0.01	0.174	0.214
	WCDMA V	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI5/10/15	4182	836.4	24.11	25.00	1.227	0.07	0.096	0.118
	WCDMA V	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI5/10/15	4182	836.4	24.11	25.00	1.227	0.09	0.092	0.113
	WCDMA V	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI5/10/15	4182	836.4	24.11	25.00	1.227	0.02	0.068	0.083
	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI5/10/15	4132	826.4	24.03	25.00	1.250	0.09	0.160	0.200
	WCDMA V	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI5/10/15	4233	846.6	24.01	25.00	1.256	0.02	0.199	0.250
04	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI5	1413	1732.6	17.52	18.00	1.117	0.01	1.060	**1.184**
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI5	1413	1732.6	17.52	18.00	1.117	-0.01	0.294	0.328
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI5	1413	1732.6	17.52	18.00	1.117	-0.01	0.262	0.293
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI5	1413	1732.6	17.52	18.00	1.117	0.12	0.195	0.218
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI5	1312	1712.4	17.44	18.00	1.138	0.01	0.970	1.103
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI5	1513	1752.6	17.36	18.00	1.159	0.11	0.883	1.023
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI10/15	1413	1732.6	15.58	16.00	1.102	0.07	0.679	0.748
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI10/15	1413	1732.6	15.58	16.00	1.102	0.08	0.180	0.198
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI10/15	1413	1732.6	15.58	16.00	1.102	0.02	0.153	0.169
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI10/15	1413	1732.6	15.58	16.00	1.102	0.09	0.108	0.119
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI10/15	1312	1712.4	15.38	16.00	1.153	0.02	0.576	0.664
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI10/15	1513	1752.6	15.45	16.00	1.135	0.11	0.508	0.577
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI5/10/15	1413	1732.6	24.19	25.00	1.205	0.09	0.243	0.293
	WCDMA IV	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI5/10/15	1413	1732.6	24.19	25.00	1.205	0.07	0.157	0.189
	WCDMA IV	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI5/10/15	1413	1732.6	24.19	25.00	1.205	0.09	0.163	0.196
	WCDMA IV	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI5/10/15	1413	1732.6	24.19	25.00	1.205	0.03	0.111	0.134
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI5/10/15	1312	1712.4	24.08	25.00	1.236	0.02	0.207	0.256
	WCDMA IV	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI5/10/15	1513	1752.6	24.03	25.00	1.250	0.12	0.200	0.250
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI5	9400	1880	17.08	17.50	1.102	0.04	0.918	1.011
	WCDMA II	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI5	9400	1880	17.08	17.50	1.102	0.02	0.248	0.273
	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI5	9400	1880	17.08	17.50	1.102	0.1	0.215	0.237
	WCDMA II	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI5	9400	1880	17.08	17.50	1.102	0.02	0.112	0.123
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI5	9262	1852.4	17.02	17.50	1.117	0.04	0.922	1.030
05	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI5	9538	1907.6	17.03	17.50	1.114	0.03	1.070	**1.192**
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI10/15	9400	1880	14.96	15.50	1.132	0.07	0.468	0.530
	WCDMA II	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI10/15	9400	1880	14.96	15.50	1.132	0.05	0.160	0.181
	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI10/15	9400	1880	14.96	15.50	1.132	0.03	0.138	0.156
	WCDMA II	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI10/15	9400	1880	14.96	15.50	1.132	0.1	0.057	0.065
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI10/15	9262	1852.4	14.89	15.50	1.151	0.05	0.446	0.513
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI10/15	9538	1907.6	14.90	15.50	1.148	0.1	0.465	0.534
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI5/10/15	9400	1880	24.25	25.00	1.189	0.06	0.263	0.313
	WCDMA II	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI5/10/15	9400	1880	24.25	25.00	1.189	0.11	0.108	0.128
	WCDMA II	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI5/10/15	9400	1880	24.25	25.00	1.189	0.02	0.159	0.189
	WCDMA II	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI5/10/15	9400	1880	24.25	25.00	1.189	0.11	0.090	0.107
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI5/10/15	9262	1852.4	24.19	25.00	1.205	0.05	0.280	0.337
	WCDMA II	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI5/10/15	9538	1907.6	24.21	25.00	1.199	0.01	0.264	0.317

<LTE FDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71	20M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI5/10/15	133297	680.5	23.95	25.00	1.274	0.06	0.293	0.373
	LTE Band 71	20M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI5/10/15	133297	680.5	23.95	25.00	1.274	0.04	0.064	0.082
06	LTE Band 71	20M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI5/10/15	133297	680.5	23.95	25.00	1.274	0.05	0.518	**0.660**
	LTE Band 71	20M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI5/10/15	133297	680.5	23.95	25.00	1.274	0.03	0.077	0.098
	LTE Band 71	20M	QPSK	50	0	Right Cheek	0mm	Ant 0	DSI5/10/15	133297	680.5	22.98	24.00	1.265	0.06	0.270	0.341
	LTE Band 71	20M	QPSK	50	0	Right Tilted	0mm	Ant 0	DSI5/10/15	133297	680.5	22.98	24.00	1.265	0.01	0.058	0.073
	LTE Band 71	20M	QPSK	50	0	Left Cheek	0mm	Ant 0	DSI5/10/15	133297	680.5	22.98	24.00	1.265	0.11	0.510	0.645
	LTE Band 71	20M	QPSK	50	0	Left Tilted	0mm	Ant 0	DSI5/10/15	133297	680.5	22.98	24.00	1.265	0.1	0.072	0.091
	LTE Band 71	20M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI5/10/15	133297	680.5	24.08	25.00	1.236	0.01	0.101	0.125
	LTE Band 71	20M	QPSK	1	0	Right Tilted	0mm	Ant 1	DSI5/10/15	133297	680.5	24.08	25.00	1.236	0.08	0.048	0.059
	LTE Band 71	20M	QPSK	1	0	Left Cheek	0mm	Ant 1	DSI5/10/15	133297	680.5	24.08	25.00	1.236	0.1	0.054	0.067
	LTE Band 71	20M	QPSK	1	0	Left Tilted	0mm	Ant 1	DSI5/10/15	133297	680.5	24.08	25.00	1.236	0.08	0.040	0.049
	LTE Band 71	20M	QPSK	50	0	Right Cheek	0mm	Ant 1	DSI5/10/15	133297	680.5	23.04	24.00	1.247	0.11	0.081	0.101
	LTE Band 71	20M	QPSK	50	0	Right Tilted	0mm	Ant 1	DSI5/10/15	133297	680.5	23.04	24.00	1.247	0.08	0.039	0.049
	LTE Band 71	20M	QPSK	50	0	Left Cheek	0mm	Ant 1	DSI5/10/15	133297	680.5	23.04	24.00	1.247	0.01	0.050	0.062
	LTE Band 71	20M	QPSK	50	0	Left Tilted	0mm	Ant 1	DSI5/10/15	133297	680.5	23.04	24.00	1.247	0.01	0.031	0.039
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI5	23095	707.5	23.65	25.00	1.365	0.07	0.391	0.534
	LTE Band 12	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI5	23095	707.5	23.65	25.00	1.365	0.05	0.078	0.106
07	LTE Band 12	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI5	23095	707.5	23.65	25.00	1.365	0.06	0.702	**0.958**
	LTE Band 12	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI5	23095	707.5	23.65	25.00	1.365	0.11	0.099	0.135
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	DSI5	23095	707.5	22.63	24.00	1.371	0.12	0.326	0.447
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	DSI5	23095	707.5	22.63	24.00	1.371	0.08	0.064	0.088
	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	DSI5	23095	707.5	22.63	24.00	1.371	0.11	0.678	0.929
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	DSI5	23095	707.5	22.63	24.00	1.371	0.05	0.086	0.118
	LTE Band 12	10M	QPSK	50	0	Left Cheek	0mm	Ant 0	DSI5	23095	707.5	22.53	24.00	1.403	0.02	0.661	0.927
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI10/15	23095	707.5	22.36	23.50	1.300	0.05	0.220	0.286
	LTE Band 12	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI10/15	23095	707.5	22.36	23.50	1.300	0.09	0.062	0.081
	LTE Band 12	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI10/15	23095	707.5	22.36	23.50	1.300	0.04	0.433	0.563
	LTE Band 12	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI10/15	23095	707.5	22.36	23.50	1.300	0.06	0.064	0.083
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	DSI10/15	23095	707.5	22.29	23.50	1.321	0.03	0.212	0.280
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	DSI10/15	23095	707.5	22.29	23.50	1.321	0.08	0.060	0.079
	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	DSI10/15	23095	707.5	22.29	23.50	1.321	0.04	0.421	0.556
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	DSI10/15	23095	707.5	22.29	23.50	1.321	0.04	0.060	0.079
	LTE Band 12	10M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI5/10/15	23095	707.5	23.81	25.00	1.315	0.07	0.140	0.184
	LTE Band 12	10M	QPSK	1	0	Right Tilted	0mm	Ant 1	DSI5/10/15	23095	707.5	23.81	25.00	1.315	0.02	0.099	0.130
	LTE Band 12	10M	QPSK	1	0	Left Cheek	0mm	Ant 1	DSI5/10/15	23095	707.5	23.81	25.00	1.315	0.04	0.112	0.147
	LTE Band 12	10M	QPSK	1	0	Left Tilted	0mm	Ant 1	DSI5/10/15	23095	707.5	23.81	25.00	1.315	0.12	0.060	0.079
	LTE Band 12	10M	QPSK	25	0	Right Cheek	0mm	Ant 1	DSI5/10/15	23095	707.5	22.78	24.00	1.324	0.1	0.119	0.158
	LTE Band 12	10M	QPSK	25	0	Right Tilted	0mm	Ant 1	DSI5/10/15	23095	707.5	22.78	24.00	1.324	0.05	0.075	0.099
	LTE Band 12	10M	QPSK	25	0	Left Cheek	0mm	Ant 1	DSI5/10/15	23095	707.5	22.78	24.00	1.324	0.06	0.086	0.114
	LTE Band 12	10M	QPSK	25	0	Left Tilted	0mm	Ant 1	DSI5/10/15	23095	707.5	22.78	24.00	1.324	0.09	0.052	0.069
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI5	23230	782	22.73	24.00	1.340	0.1	0.348	0.466
	LTE Band 13	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI5	23230	782	22.73	24.00	1.340	0.11	0.050	0.067
08	LTE Band 13	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI5	23230	782	22.73	24.00	1.340	0.05	0.768	**1.029**
	LTE Band 13	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI5	23230	782	22.73	24.00	1.340	0.12	0.075	0.100
	LTE Band 13	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	DSI5	23230	782	22.65	24.00	1.365	0.11	0.205	0.280
	LTE Band 13	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	DSI5	23230	782	22.65	24.00	1.365	0.08	0.049	0.067
	LTE Band 13	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	DSI5	23230	782	22.65	24.00	1.365	0.08	0.654	0.892
	LTE Band 13	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	DSI5	23230	782	22.65	24.00	1.365	0.01	0.080	0.109
	LTE Band 13	10M	QPSK	50	0	Left Cheek	0mm	Ant 0	DSI5	23230	782	22.57	24.00	1.390	0.08	0.682	0.948
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI10/15	23230	782	21.26	22.50	1.330	0.09	0.201	0.267
	LTE Band 13	10M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI10/15	23230	782	21.26	22.50	1.330	0.06	0.035	0.047
	LTE Band 13	10M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI10/15	23230	782	21.26	22.50	1.330	0.06	0.508	0.676

	LTE Band 13	10M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI10/15	23230	782	21.26	22.50	1.330	0.04	0.063	0.084
	LTE Band 13	10M	QPSK	25	0	Right Cheek	0mm	Ant 0	DSI10/15	23230	782	21.21	22.50	1.346	0.07	0.190	0.256
	LTE Band 13	10M	QPSK	25	0	Right Tilted	0mm	Ant 0	DSI10/15	23230	782	21.21	22.50	1.346	0.02	0.033	0.044
	LTE Band 13	10M	QPSK	25	0	Left Cheek	0mm	Ant 0	DSI10/15	23230	782	21.21	22.50	1.346	0.01	0.480	0.646
	LTE Band 13	10M	QPSK	25	0	Left Tilted	0mm	Ant 0	DSI10/15	23230	782	21.21	22.50	1.346	0.03	0.058	0.078
	LTE Band 13	10M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI5/10/15	23230	782	23.94	25.00	1.276	0.01	0.221	0.282
	LTE Band 13	10M	QPSK	1	0	Right Tilted	0mm	Ant 1	DSI5/10/15	23230	782	23.94	25.00	1.276	0.08	0.101	0.129
	LTE Band 13	10M	QPSK	1	0	Left Cheek	0mm	Ant 1	DSI5/10/15	23230	782	23.94	25.00	1.276	-0.01	0.107	0.137
	LTE Band 13	10M	QPSK	1	0	Left Tilted	0mm	Ant 1	DSI5/10/15	23230	782	23.94	25.00	1.276	0.12	0.067	0.086
	LTE Band 13	10M	QPSK	25	0	Right Cheek	0mm	Ant 1	DSI5/10/15	23230	782	22.82	24.00	1.312	0.05	0.149	0.196
	LTE Band 13	10M	QPSK	25	0	Right Tilted	0mm	Ant 1	DSI5/10/15	23230	782	22.82	24.00	1.312	0.12	0.083	0.109
	LTE Band 13	10M	QPSK	25	0	Left Cheek	0mm	Ant 1	DSI5/10/15	23230	782	22.82	24.00	1.312	0.02	0.091	0.119
	LTE Band 13	10M	QPSK	25	0	Left Tilted	0mm	Ant 1	DSI5/10/15	23230	782	22.82	24.00	1.312	0.08	0.054	0.071
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI5	26865	831.5	22.50	24.00	1.413	0.12	0.203	0.287
	LTE Band 26	15M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI5	26865	831.5	22.50	24.00	1.413	0.03	0.040	0.057
	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI5	26865	831.5	22.50	24.00	1.413	0.11	0.608	0.859
	LTE Band 26	15M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI5	26865	831.5	22.50	24.00	1.413	0.09	0.045	0.064
	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI5	26765	821.5	22.43	24.00	1.435	0.06	0.481	0.690
09	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI5	26965	841.5	22.37	24.00	1.455	0.09	0.742	**1.080**
	LTE Band 26	15M	QPSK	36	0	Right Cheek	0mm	Ant 0	DSI5	26865	831.5	22.42	24.00	1.439	0.07	0.196	0.282
	LTE Band 26	15M	QPSK	36	0	Right Tilted	0mm	Ant 0	DSI5	26865	831.5	22.42	24.00	1.439	0.11	0.039	0.056
	LTE Band 26	15M	QPSK	36	0	Left Cheek	0mm	Ant 0	DSI5	26865	831.5	22.42	24.00	1.439	0.04	0.552	0.794
	LTE Band 26	15M	QPSK	36	0	Left Tilted	0mm	Ant 0	DSI5	26865	831.5	22.42	24.00	1.439	0.09	0.040	0.058
	LTE Band 26	15M	QPSK	75	0	Left Cheek	0mm	Ant 0	DSI5	26865	831.5	22.39	24.00	1.449	-0.01	0.507	0.735
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 0	DSI10/15	26865	831.5	21.07	22.50	1.390	0.07	0.126	0.175
	LTE Band 26	15M	QPSK	1	0	Right Tilted	0mm	Ant 0	DSI10/15	26865	831.5	21.07	22.50	1.390	0.06	0.030	0.042
	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI10/15	26865	831.5	21.07	22.50	1.390	0.11	0.388	0.539
	LTE Band 26	15M	QPSK	1	0	Left Tilted	0mm	Ant 0	DSI10/15	26865	831.5	21.07	22.50	1.390	0.05	0.029	0.040
	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI10/15	26765	821.5	20.94	22.50	1.432	0.02	0.186	0.266
	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 0	DSI10/15	26965	841.5	21.03	22.50	1.403	0.07	0.457	0.641
	LTE Band 26	15M	QPSK	36	0	Right Cheek	0mm	Ant 0	DSI10/15	26865	831.5	21.02	22.50	1.406	0.02	0.120	0.169
	LTE Band 26	15M	QPSK	36	0	Right Tilted	0mm	Ant 0	DSI10/15	26865	831.5	21.02	22.50	1.406	0.1	0.029	0.041
	LTE Band 26	15M	QPSK	36	0	Left Cheek	0mm	Ant 0	DSI10/15	26865	831.5	21.02	22.50	1.406	0.08	0.321	0.451
	LTE Band 26	15M	QPSK	36	0	Left Tilted	0mm	Ant 0	DSI10/15	26865	831.5	21.02	22.50	1.406	0.12	0.026	0.037
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI5/10/15	26865	831.5	23.86	25.00	1.300	0.08	0.153	0.199
	LTE Band 26	15M	QPSK	1	0	Right Tilted	0mm	Ant 1	DSI5/10/15	26865	831.5	23.86	25.00	1.300	0.01	0.087	0.113
	LTE Band 26	15M	QPSK	1	0	Left Cheek	0mm	Ant 1	DSI5/10/15	26865	831.5	23.86	25.00	1.300	0.03	0.091	0.118
	LTE Band 26	15M	QPSK	1	0	Left Tilted	0mm	Ant 1	DSI5/10/15	26865	831.5	23.86	25.00	1.300	0.03	0.058	0.075
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI5/10/15	26765	821.5	23.67	25.00	1.358	0.04	0.115	0.156
	LTE Band 26	15M	QPSK	1	0	Right Cheek	0mm	Ant 1	DSI5/10/15	26965	841.5	23.80	25.00	1.318	0.11	0.148	0.195
	LTE Band 26	15M	QPSK	36	0	Right Cheek	0mm	Ant 1	DSI5/10/15	26865	831.5	22.84	24.00	1.306	0.07	0.109	0.142
	LTE Band 26	15M	QPSK	36	0	Right Tilted	0mm	Ant 1	DSI5/10/15	26865	831.5	22.84	24.00	1.306	0.02	0.066	0.086
	LTE Band 26	15M	QPSK	36	0	Left Cheek	0mm	Ant 1	DSI5/10/15	26865	831.5	22.84	24.00	1.306	0.09	0.074	0.097
	LTE Band 26	15M	QPSK	36	0	Left Tilted	0mm	Ant 1	DSI5/10/15	26865	831.5	22.84	24.00	1.306	0.08	0.044	0.057
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	132322	1745	17.61	18.50	1.227	0.06	0.677	0.831
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI5	132322	1745	17.61	18.50	1.227	0.03	0.203	0.249
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI5	132322	1745	17.61	18.50	1.227	0.12	0.173	0.212
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI5	132322	1745	17.61	18.50	1.227	0.11	0.116	0.142
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	132072	1720	17.55	18.50	1.245	0.12	0.702	0.874
10	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	132572	1770	17.60	18.50	1.230	0.1	0.960	**1.181**
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	132322	1745	17.60	18.50	1.230	0.02	0.693	0.853
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI5	132322	1745	17.60	18.50	1.230	0.08	0.211	0.260
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI5	132322	1745	17.60	18.50	1.230	0.06	0.173	0.213
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI5	132322	1745	17.60	18.50	1.230	0.06	0.117	0.144
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	132072	1720	17.45	18.50	1.274	0.02	0.690	0.879
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	132572	1770	17.59	18.50	1.233	0.07	0.733	0.904

	LTE Band 66	20M	QPSK	100	0	Right Cheek	0mm	Ant 2	DSI5	132322	1745	17.51	18.50	1.256	0.11	0.655	0.823
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	132322	1745	16.03	17.00	1.250	0.03	0.528	0.660
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI10/15	132322	1745	16.03	17.00	1.250	0.01	0.160	0.200
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI10/15	132322	1745	16.03	17.00	1.250	0.11	0.140	0.175
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI10/15	132322	1745	16.03	17.00	1.250	0.11	0.089	0.111
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	132072	1720	15.98	17.00	1.265	0.08	0.468	0.592
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	132572	1770	15.87	17.00	1.297	0.01	0.481	0.624
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI10/15	132322	1745	15.98	17.00	1.265	0.03	0.519	0.656
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI10/15	132322	1745	15.98	17.00	1.265	0.02	0.157	0.199
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI10/15	132322	1745	15.98	17.00	1.265	0.08	0.139	0.176
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI10/15	132322	1745	15.98	17.00	1.265	0.07	0.087	0.110
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	132322	1745	23.93	25.00	1.279	0.1	0.181	0.232
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 3	DSI5/10/15	132322	1745	23.93	25.00	1.279	0.04	0.141	0.180
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	132322	1745	23.93	25.00	1.279	0.08	0.134	0.171
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	Ant 3	DSI5/10/15	132322	1745	23.93	25.00	1.279	0.06	0.118	0.151
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	132072	1720	23.77	25.00	1.327	0.04	0.175	0.232
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	132572	1770	23.83	25.00	1.309	0.11	0.170	0.223
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 3	DSI5/10/15	132322	1745	22.80	24.00	1.318	0.09	0.146	0.192
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	Ant 3	DSI5/10/15	132322	1745	22.80	24.00	1.318	0.1	0.096	0.127
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	Ant 3	DSI5/10/15	132322	1745	22.80	24.00	1.318	-0.1	0.122	0.161
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	Ant 3	DSI5/10/15	132322	1745	22.80	24.00	1.318	0.05	0.102	0.134
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5/10/15	132322	1745	24.29	25.00	1.178	0.01	0.181	0.213
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5/10/15	132322	1745	24.29	25.00	1.178	0.06	0.189	0.223
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5/10/15	132322	1745	24.29	25.00	1.178	0.06	0.114	0.134
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5/10/15	132322	1745	24.29	25.00	1.178	0.1	0.157	0.185
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5/10/15	132072	1720	24.27	25.00	1.183	0.12	0.174	0.206
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5/10/15	132572	1770	24.25	25.00	1.189	0.08	0.183	0.217
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5/10/15	132322	1745	23.27	24.00	1.183	-0.01	0.132	0.156
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5/10/15	132322	1745	23.27	24.00	1.183	0.06	0.148	0.175
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5/10/15	132322	1745	23.27	24.00	1.183	0.11	0.082	0.097
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5/10/15	132322	1745	23.27	24.00	1.183	0.01	0.110	0.130
	LTE Band 66	20M	QPSK	1	0	Right Cheek	0mm	Ant 6	DSI5/10/15	132322	1745	22.41	23.00	1.146	0.08	0.050	0.057
	LTE Band 66	20M	QPSK	1	0	Right Tilted	0mm	Ant 6	DSI5/10/15	132322	1745	22.41	23.00	1.146	-0.01	0.043	0.049
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5/10/15	132322	1745	22.41	23.00	1.146	-0.01	0.203	0.233
	LTE Band 66	20M	QPSK	1	0	Left Tilted	0mm	Ant 6	DSI5/10/15	132322	1745	22.41	23.00	1.146	0.08	0.062	0.071
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5/10/15	132072	1720	22.38	23.00	1.153	0.01	0.127	0.146
	LTE Band 66	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5/10/15	132572	1770	22.37	23.00	1.156	0.12	0.157	0.182
	LTE Band 66	20M	QPSK	50	0	Right Cheek	0mm	Ant 6	DSI5/10/15	132322	1745	22.39	23.00	1.151	0.03	0.045	0.052
	LTE Band 66	20M	QPSK	50	0	Right Tilted	0mm	Ant 6	DSI5/10/15	132322	1745	22.39	23.00	1.151	-0.14	0.040	0.046
	LTE Band 66	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5/10/15	132322	1745	22.39	23.00	1.151	0.09	0.138	0.159
	LTE Band 66	20M	QPSK	50	0	Left Tilted	0mm	Ant 6	DSI5/10/15	132322	1745	22.39	23.00	1.151	0.11	0.063	0.073
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	26340	1880	17.24	18.00	1.191	0.03	0.798	0.951
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI5	26340	1880	17.24	18.00	1.191	0.09	0.269	0.320
	LTE Band 25	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI5	26340	1880	17.24	18.00	1.191	0.01	0.239	0.285
	LTE Band 25	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI5	26340	1880	17.24	18.00	1.191	0.12	0.119	0.142
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	26140	1860	17.23	18.00	1.194	0.03	0.779	0.930
11	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	26590	1905	17.04	18.00	1.247	0.03	0.952	**1.188**
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	26340	1880	17.17	18.00	1.211	0.03	0.778	0.942
	LTE Band 25	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI5	26340	1880	17.17	18.00	1.211	0.12	0.263	0.318
	LTE Band 25	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI5	26340	1880	17.17	18.00	1.211	0.02	0.234	0.283
	LTE Band 25	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI5	26340	1880	17.17	18.00	1.211	0.09	0.114	0.138
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	26140	1860	17.15	18.00	1.216	0.08	0.773	0.940
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	26590	1905	17.04	18.00	1.247	0.05	0.791	0.987
	LTE Band 25	20M	QPSK	100	0	Right Cheek	0mm	Ant 2	DSI5	26340	1880	16.94	18.00	1.276	0.04	0.730	0.932
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	26340	1880	15.18	16.00	1.208	0.11	0.473	0.571
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI10/15	26340	1880	15.18	16.00	1.208	0.06	0.165	0.199

	LTE Band 25	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI10/15	26340	1880	15.18	16.00	1.208	0.08	0.162	0.196
	LTE Band 25	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI10/15	26340	1880	15.18	16.00	1.208	0.12	0.089	0.107
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	26140	1860	15.07	16.00	1.239	0.03	0.522	0.647
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	26590	1905	15.13	16.00	1.222	0.07	0.523	0.639
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI10/15	26340	1880	15.04	16.00	1.247	0.1	0.453	0.565
	LTE Band 25	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI10/15	26340	1880	15.04	16.00	1.247	0.06	0.154	0.192
	LTE Band 25	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI10/15	26340	1880	15.04	16.00	1.247	0.01	0.157	0.196
	LTE Band 25	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI10/15	26340	1880	15.04	16.00	1.247	0.01	0.082	0.102
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	26340	1880	23.91	25.00	1.285	0.12	0.165	0.212
	LTE Band 25	20M	QPSK	1	0	Right Tilted	0mm	Ant 3	DSI5/10/15	26340	1880	23.91	25.00	1.285	0.09	0.095	0.122
	LTE Band 25	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	26340	1880	23.91	25.00	1.285	0.06	0.115	0.148
	LTE Band 25	20M	QPSK	1	0	Left Tilted	0mm	Ant 3	DSI5/10/15	26340	1880	23.91	25.00	1.285	0.01	0.096	0.123
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	26140	1860	23.83	25.00	1.309	0.07	0.205	0.268
	LTE Band 25	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	26590	1905	23.89	25.00	1.291	0.06	0.186	0.240
	LTE Band 25	20M	QPSK	50	0	Right Cheek	0mm	Ant 3	DSI5/10/15	26340	1880	22.85	24.00	1.303	0.1	0.115	0.150
	LTE Band 25	20M	QPSK	50	0	Right Tilted	0mm	Ant 3	DSI5/10/15	26340	1880	22.85	24.00	1.303	0.03	0.074	0.096
	LTE Band 25	20M	QPSK	50	0	Left Cheek	0mm	Ant 3	DSI5/10/15	26340	1880	22.85	24.00	1.303	0.01	0.130	0.169
	LTE Band 25	20M	QPSK	50	0	Left Tilted	0mm	Ant 3	DSI5/10/15	26340	1880	22.85	24.00	1.303	0.07	0.070	0.091
12	LTE Band 30	10M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	27710	2310	17.74	18.50	1.191	0.07	1.000	**1.191**
	LTE Band 30	10M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI5	27710	2310	17.74	18.50	1.191	0.01	0.270	0.322
	LTE Band 30	10M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI5	27710	2310	17.74	18.50	1.191	0.06	0.257	0.306
	LTE Band 30	10M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI5	27710	2310	17.74	18.50	1.191	0.01	0.114	0.136
	LTE Band 30	10M	QPSK	25	0	Right Cheek	0mm	Ant 2	DSI5	27710	2310	17.73	18.50	1.194	0.04	0.755	0.901
	LTE Band 30	10M	QPSK	25	0	Right Tilted	0mm	Ant 2	DSI5	27710	2310	17.73	18.50	1.194	0.12	0.270	0.322
	LTE Band 30	10M	QPSK	25	0	Left Cheek	0mm	Ant 2	DSI5	27710	2310	17.73	18.50	1.194	0.09	0.265	0.316
	LTE Band 30	10M	QPSK	25	0	Left Tilted	0mm	Ant 2	DSI5	27710	2310	17.73	18.50	1.194	0.04	0.116	0.139
	LTE Band 30	10M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	27710	2310	17.51	18.50	1.256	0.03	0.724	0.909
	LTE Band 30	10M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	27710	2310	16.05	16.80	1.189	0.01	0.549	0.652
	LTE Band 30	10M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI10/15	27710	2310	16.05	16.80	1.189	0.02	0.179	0.213
	LTE Band 30	10M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI10/15	27710	2310	16.05	16.80	1.189	0.06	0.186	0.221
	LTE Band 30	10M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI10/15	27710	2310	16.05	16.80	1.189	0.12	0.069	0.082
	LTE Band 30	10M	QPSK	25	0	Right Cheek	0mm	Ant 2	DSI10/15	27710	2310	15.87	16.80	1.239	0.06	0.523	0.648
	LTE Band 30	10M	QPSK	25	0	Right Tilted	0mm	Ant 2	DSI10/15	27710	2310	15.87	16.80	1.239	0.11	0.171	0.212
	LTE Band 30	10M	QPSK	25	0	Left Cheek	0mm	Ant 2	DSI10/15	27710	2310	15.87	16.80	1.239	0.12	0.175	0.217
	LTE Band 30	10M	QPSK	25	0	Left Tilted	0mm	Ant 2	DSI10/15	27710	2310	15.87	16.80	1.239	0.12	0.061	0.076
	LTE Band 30	10M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	27710	2310	24.16	25.00	1.213	0.09	0.180	0.218
	LTE Band 30	10M	QPSK	1	0	Right Tilted	0mm	Ant 3	DSI5/10/15	27710	2310	24.16	25.00	1.213	-0.01	0.078	0.095
	LTE Band 30	10M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	27710	2310	24.16	25.00	1.213	0.01	0.221	0.268
	LTE Band 30	10M	QPSK	1	0	Left Tilted	0mm	Ant 3	DSI5/10/15	27710	2310	24.16	25.00	1.213	0.01	0.075	0.091
	LTE Band 30	10M	QPSK	25	0	Right Cheek	0mm	Ant 3	DSI5/10/15	27710	2310	23.08	24.00	1.236	0.08	0.142	0.176
	LTE Band 30	10M	QPSK	25	0	Right Tilted	0mm	Ant 3	DSI5/10/15	27710	2310	23.08	24.00	1.236	0.04	0.067	0.083
	LTE Band 30	10M	QPSK	25	0	Left Cheek	0mm	Ant 3	DSI5/10/15	27710	2310	23.08	24.00	1.236	-0.01	0.154	0.190
	LTE Band 30	10M	QPSK	25	0	Left Tilted	0mm	Ant 3	DSI5/10/15	27710	2310	23.08	24.00	1.236	-0.01	0.061	0.075
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	21100	2535	16.17	16.70	1.130	0.07	0.731	0.826
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI5	21100	2535	16.17	16.70	1.130	0.09	0.242	0.273
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI5	21100	2535	16.17	16.70	1.130	0.11	0.225	0.254
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI5	21100	2535	16.17	16.70	1.130	0.11	0.096	0.108
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	20850	2510	16.11	16.70	1.146	0.12	0.697	0.798
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	21350	2560	16.14	16.70	1.138	0.1	0.810	0.921
	LTE Band 7C	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	21350 21152	2560 2540.2	16.09	16.70	1.151	0.06	0.725	0.834
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	21100	2535	16.11	16.70	1.146	0.03	0.758	0.868
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI5	21100	2535	16.11	16.70	1.146	-0.13	0.247	0.283
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI5	21100	2535	16.11	16.70	1.146	0.1	0.232	0.266
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI5	21100	2535	16.11	16.70	1.146	0.04	0.101	0.116
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	20850	2510	15.81	16.70	1.227	0.06	0.731	0.897
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	21350	2560	15.90	16.70	1.202	0.11	0.760	0.914

	LTE Band 7	20M	QPSK	100	0	Right Cheek	0mm	Ant 2	DSI5	21100	2535	16.07	16.70	1.156	0.12	0.761	0.880
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	21100	2535	14.20	14.70	1.122	0.02	0.483	0.542
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI10/15	21100	2535	14.20	14.70	1.122	0.01	0.157	0.176
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI10/15	21100	2535	14.20	14.70	1.122	0.04	0.161	0.181
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI10/15	21100	2535	14.20	14.70	1.122	0.06	0.065	0.073
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	20850	2510	14.07	14.70	1.156	0.07	0.462	0.534
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	21350	2560	14.14	14.70	1.138	0.09	0.494	0.562
	LTE Band 7C	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	21350 21152	2560 2540.2	14.04	14.70	1.164	0.01	0.359	0.418
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI10/15	21100	2535	14.11	14.70	1.146	0.08	0.470	0.538
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI10/15	21100	2535	14.11	14.70	1.146	0.08	0.152	0.174
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI10/15	21100	2535	14.11	14.70	1.146	0.04	0.115	0.132
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI10/15	21100	2535	14.11	14.70	1.146	-0.01	0.060	0.069
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	21100	2535	23.28	24.20	1.236	0.02	0.147	0.182
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 3	DSI5/10/15	21100	2535	23.28	24.20	1.236	0.06	0.088	0.109
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	21100	2535	23.28	24.20	1.236	0.04	0.170	0.210
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 3	DSI5/10/15	21100	2535	23.28	24.20	1.236	0.07	0.066	0.082
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	20850	2510	23.25	24.20	1.245	0.11	0.162	0.202
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	21350	2560	23.24	24.20	1.247	0.09	0.175	0.218
	LTE Band 7C	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	21350 21152	2560 2540.2	23.02	24.20	1.312	0.07	0.133	0.175
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 3	DSI5/10/15	21100	2535	22.29	23.20	1.233	0.07	0.121	0.149
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 3	DSI5/10/15	21100	2535	22.29	23.20	1.233	0.06	0.071	0.088
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 3	DSI5/10/15	21100	2535	22.29	23.20	1.233	0.05	0.142	0.175
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 3	DSI5/10/15	21100	2535	22.29	23.20	1.233	0.07	0.053	0.065
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	21100	2535	17.48	18.70	1.324	0.12	0.732	0.969
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	21100	2535	17.48	18.70	1.324	0.07	0.835	1.106
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5	21100	2535	17.48	18.70	1.324	0.04	0.509	0.674
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5	21100	2535	17.48	18.70	1.324	0.08	0.568	0.752
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	20850	2510	17.26	18.70	1.393	0.1	0.686	0.956
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	21350	2560	17.41	18.70	1.346	0.1	0.747	1.005
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	20850	2510	17.26	18.70	1.393	-0.01	0.726	1.011
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	21350	2560	17.41	18.70	1.346	-0.01	0.822	1.106
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	21100	2535	17.43	18.70	1.340	0.11	0.714	0.957
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	21100	2535	17.43	18.70	1.340	0.08	0.817	1.095
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5	21100	2535	17.43	18.70	1.340	0.01	0.508	0.681
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5	21100	2535	17.43	18.70	1.340	0.01	0.550	0.737
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	20850	2510	17.26	18.70	1.393	0.02	0.647	0.901
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	21350	2560	17.39	18.70	1.352	0.03	0.697	0.942
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	20850	2510	17.26	18.70	1.393	0.04	0.759	1.057
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	21350	2560	17.39	18.70	1.352	0.09	0.792	1.071
	LTE Band 7	20M	QPSK	100	0	Right Cheek	0mm	Ant 5	DSI5	21100	2535	17.36	18.70	1.361	0.01	0.716	0.975
	LTE Band 7	20M	QPSK	100	0	Right Tilted	0mm	Ant 5	DSI5	21100	2535	17.36	18.70	1.361	0.06	0.804	1.095
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	21100	2535	16.43	17.70	1.340	0.05	0.559	0.749
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	21100	2535	16.43	17.70	1.340	-0.01	0.642	0.860
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI10/15	21100	2535	16.43	17.70	1.340	0.08	0.392	0.525
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI10/15	21100	2535	16.43	17.70	1.340	0.09	0.442	0.592
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	20850	2510	16.30	17.70	1.380	-0.01	0.591	0.816
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	21350	2560	16.37	17.70	1.358	0.04	0.645	0.876
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI10/15	21100	2535	16.39	17.70	1.352	0.05	0.572	0.773
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	21100	2535	16.39	17.70	1.352	0.04	0.625	0.845
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI10/15	21100	2535	16.39	17.70	1.352	0.01	0.394	0.533
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI10/15	21100	2535	16.39	17.70	1.352	0.01	0.433	0.585
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	20850	2510	16.14	17.70	1.432	0.08	0.590	0.845
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	21350	2560	16.29	17.70	1.384	0.03	0.627	0.867
	LTE Band 7	20M	QPSK	100	0	Right Tilted	0mm	Ant 5	DSI10/15	21100	2535	16.28	17.70	1.387	0.09	0.632	0.876
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 6	DSI5	21100	2535	17.88	18.70	1.208	0.07	0.186	0.225
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 6	DSI5	21100	2535	17.88	18.70	1.208	0.04	0.140	0.169

13	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	21100	2535	17.88	18.70	1.208	0.1	0.979	**1.182**
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 6	DSI5	21100	2535	17.88	18.70	1.208	0.04	0.457	0.552
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	20850	2510	17.87	18.70	1.211	0.02	0.859	1.040
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	21350	2560	17.86	18.70	1.213	0.02	0.851	1.033
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 6	DSI5	21100	2535	17.79	18.70	1.233	0.12	0.199	0.245
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 6	DSI5	21100	2535	17.79	18.70	1.233	0.09	0.148	0.182
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	21100	2535	17.79	18.70	1.233	0.1	0.861	1.062
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 6	DSI5	21100	2535	17.79	18.70	1.233	0.07	0.449	0.554
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	20850	2510	17.78	18.70	1.236	0.11	0.835	1.032
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	21350	2560	17.78	18.70	1.236	0.01	0.840	1.038
	LTE Band 7	20M	QPSK	100	0	Left Cheek	0mm	Ant 6	DSI5	21100	2535	17.73	18.70	1.250	0.1	0.876	1.095
	LTE Band 7	20M	QPSK	1	0	Right Cheek	0mm	Ant 6	DSI10/15	21100	2535	15.91	16.70	1.199	0.03	0.121	0.145
	LTE Band 7	20M	QPSK	1	0	Right Tilted	0mm	Ant 6	DSI10/15	21100	2535	15.91	16.70	1.199	-0.08	0.098	0.118
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	21100	2535	15.91	16.70	1.199	0.16	0.570	0.684
	LTE Band 7	20M	QPSK	1	0	Left Tilted	0mm	Ant 6	DSI10/15	21100	2535	15.91	16.70	1.199	-0.06	0.268	0.321
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	20850	2510	15.84	16.70	1.219	-0.03	0.545	0.664
	LTE Band 7	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	21350	2560	15.85	16.70	1.216	0.1	0.522	0.635
	LTE Band 7	20M	QPSK	50	0	Right Cheek	0mm	Ant 6	DSI10/15	21100	2535	15.74	16.70	1.247	-0.03	0.110	0.137
	LTE Band 7	20M	QPSK	50	0	Right Tilted	0mm	Ant 6	DSI10/15	21100	2535	15.74	16.70	1.247	-0.11	0.087	0.109
	LTE Band 7	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI10/15	21100	2535	15.74	16.70	1.247	0.07	0.542	0.676
	LTE Band 7	20M	QPSK	50	0	Left Tilted	0mm	Ant 6	DSI10/15	21100	2535	15.74	16.70	1.247	0.18	0.270	0.337

<LTE TDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	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)
14	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	40185	2549.5	17.77	18.50	1.183	62.9	1.006	0.11	1.000	**1.190**
	LTE Band 41C	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	40185 40383	2549.5 2569.3	17.59	18.50	1.233	62.9	1.006	0.02	0.948	1.176
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI5	40185	2549.5	17.77	18.50	1.183	62.9	1.006	0.02	0.228	0.271
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI5	40185	2549.5	17.77	18.50	1.183	62.9	1.006	0.03	0.169	0.201
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI5	40185	2549.5	17.77	18.50	1.183	62.9	1.006	0.1	0.085	0.101
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	39750	2506	17.69	18.50	1.205	62.9	1.006	0.03	0.608	0.737
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	40620	2593	17.61	18.50	1.227	62.9	1.006	0.03	0.649	0.801
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	41055	2636.5	17.61	18.50	1.227	62.9	1.006	0.07	0.607	0.750
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	41490	2680	17.65	18.50	1.216	62.9	1.006	0.08	0.498	0.609
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	40185	2549.5	17.70	18.50	1.202	62.9	1.006	0.1	0.679	0.821
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI5	40185	2549.5	17.70	18.50	1.202	62.9	1.006	0.04	0.235	0.284
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI5	40185	2549.5	17.70	18.50	1.202	62.9	1.006	0.06	0.172	0.208
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI5	40185	2549.5	17.70	18.50	1.202	62.9	1.006	-0.04	0.088	0.106
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	39750	2506	17.60	18.50	1.230	62.9	1.006	0.12	0.625	0.774
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	40620	2593	17.49	18.50	1.262	62.9	1.006	0.09	0.614	0.779
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	41055	2636.5	17.59	18.50	1.233	62.9	1.006	0.06	0.578	0.717
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	41490	2680	17.63	18.50	1.222	62.9	1.006	0.07	0.494	0.607
	LTE Band 41	20M	QPSK	100	0	Right Cheek	0mm	Ant 2	DSI5	40185	2549.5	17.69	18.50	1.205	62.9	1.006	0.02	0.673	0.816
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	15.87	16.50	1.156	62.9	1.006	0.05	0.474	0.551
	LTE Band 41C	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	40185 40383	2549.5 2569.3	15.55	16.50	1.245	62.9	1.006	-0.13	0.411	0.515
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	15.87	16.50	1.156	62.9	1.006	0.05	0.144	0.167
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	15.87	16.50	1.156	62.9	1.006	0.11	0.115	0.134
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	15.87	16.50	1.156	62.9	1.006	0.11	0.058	0.067
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	39750	2506	15.84	16.50	1.164	62.9	1.006	0.09	0.396	0.464
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	40620	2593	15.86	16.50	1.159	62.9	1.006	0.04	0.411	0.479
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	41055	2636.5	15.81	16.50	1.172	62.9	1.006	0.1	0.385	0.454
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	41490	2680	15.79	16.50	1.178	62.9	1.006	0.1	0.319	0.378
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	15.85	16.50	1.161	62.9	1.006	0.03	0.450	0.526
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	15.85	16.50	1.161	62.9	1.006	0.03	0.149	0.174
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	15.85	16.50	1.161	62.9	1.006	0.07	0.119	0.139
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	15.85	16.50	1.161	62.9	1.006	0.04	0.061	0.071
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	24.44	25.00	1.138	62.9	1.006	0.04	0.120	0.137
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	24.44	25.00	1.138	62.9	1.006	0.06	0.062	0.071
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	24.44	25.00	1.138	62.9	1.006	0.09	0.139	0.159
	LTE Band 41C	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40185 40383	2549.5 2569.3	23.88	25.00	1.294	62.9	1.006	-0.09	0.112	0.146
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	24.44	25.00	1.138	62.9	1.006	0.01	0.066	0.076
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	39750	2506	24.13	25.00	1.222	62.9	1.006	0.08	0.120	0.147
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40620	2593	24.23	25.00	1.194	62.9	1.006	0.12	0.123	0.148
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	41055	2636.5	24.23	25.00	1.194	62.9	1.006	0.02	0.083	0.100
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	41490	2680	23.94	25.00	1.276	62.9	1.006	0.11	0.082	0.105
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	23.26	24.00	1.186	62.9	1.006	-0.01	0.103	0.123
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	23.26	24.00	1.186	62.9	1.006	0.12	0.053	0.063
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	23.26	24.00	1.186	62.9	1.006	0.05	0.109	0.130
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	23.26	24.00	1.186	62.9	1.006	0.08	0.047	0.056
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	40185	2549.5	19.43	20.10	1.167	42.9	1.009	0.01	0.590	0.695
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI5	40185	2549.5	19.43	20.10	1.167	42.9	1.009	0.03	0.183	0.215
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI5	40185	2549.5	19.43	20.10	1.167	42.9	1.009	0.1	0.173	0.204
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI5	40185	2549.5	19.43	20.10	1.167	42.9	1.009	0.03	0.078	0.092
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	39750	2506	19.31	20.10	1.199	42.9	1.009	0.03	0.532	0.644
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	40620	2593	19.37	20.10	1.183	42.9	1.009	0.12	0.572	0.683
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	41055	2636.5	19.39	20.10	1.178	42.9	1.009	0.02	0.532	0.632

	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI5	41490	2680	19.28	20.10	1.208	42.9	1.009	0.06	0.667	0.813
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	40185	2549.5	19.37	20.10	1.183	42.9	1.009	0.06	0.898	1.072
	LTE Band 41C(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	40185 40383	2549.5 2569.3	18.59	20.10	1.416	42.9	1.009	0.11	0.714	1.020
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI5	40185	2549.5	19.37	20.10	1.183	42.9	1.009	0.12	0.196	0.234
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI5	40185	2549.5	19.37	20.10	1.183	42.9	1.009	-0.01	0.190	0.227
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI5	40185	2549.5	19.37	20.10	1.183	42.9	1.009	0.12	0.086	0.103
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	39750	2506	19.27	20.10	1.211	42.9	1.009	0.1	0.627	0.766
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	40620	2593	19.26	20.10	1.213	42.9	1.009	-0.01	0.641	0.785
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	41055	2636.5	19.32	20.10	1.197	42.9	1.009	-0.12	0.593	0.716
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI5	41490	2680	19.17	20.10	1.239	42.9	1.009	-0.01	0.596	0.745
	LTE Band 41(HPUE)	20M	QPSK	100	0	Right Cheek	0mm	Ant 2	DSI5	40185	2549.5	19.22	20.10	1.225	42.9	1.009	0.11	0.688	0.850
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	17.25	18.10	1.216	42.9	1.009	0.01	0.462	0.567
	LTE Band 41C(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	40185 40383	2549.5 2569.3	16.66	18.10	1.393	42.9	1.009	0.19	0.358	0.503
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	17.25	18.10	1.216	42.9	1.009	-0.01	0.141	0.173
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	17.25	18.10	1.216	42.9	1.009	-0.01	0.104	0.128
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	17.25	18.10	1.216	42.9	1.009	0.1	0.054	0.066
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	39750	2506	17.21	18.10	1.227	42.9	1.009	0.07	0.397	0.492
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	40620	2593	17.20	18.10	1.230	42.9	1.009	0.11	0.419	0.520
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	41055	2636.5	17.13	18.10	1.250	42.9	1.009	-0.01	0.390	0.492
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 2	DSI10/15	41490	2680	17.08	18.10	1.265	42.9	1.009	0.06	0.337	0.430
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	17.21	18.10	1.227	42.9	1.009	0.01	0.457	0.566
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	17.21	18.10	1.227	42.9	1.009	0.11	0.147	0.182
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Cheek	0mm	Ant 2	DSI10/15	40185	2549.5	17.21	18.10	1.227	42.9	1.009	0.11	0.109	0.135
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Tilted	0mm	Ant 2	DSI10/15	40185	2549.5	17.21	18.10	1.227	42.9	1.009	0.04	0.054	0.067
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	26.12	27.00	1.225	42.9	1.009	0.12	0.131	0.162
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	26.12	27.00	1.225	42.9	1.009	0.03	0.063	0.078
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	26.12	27.00	1.225	42.9	1.009	0.05	0.140	0.173
	LTE Band 41C(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40185 40383	2549.5 2569.3	25.60	27.00	1.380	42.9	1.009	0.17	0.101	0.141
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	26.12	27.00	1.225	42.9	1.009	0.09	0.048	0.059
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	39750	2506	25.93	27.00	1.279	42.9	1.009	-0.13	0.132	0.170
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40620	2593	26.09	27.00	1.233	42.9	1.009	0.04	0.125	0.156
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	41055	2636.5	26.05	27.00	1.245	42.9	1.009	0.09	0.082	0.103
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Cheek	0mm	Ant 3	DSI5/10/15	41490	2680	25.95	27.00	1.274	42.9	1.009	0.1	0.101	0.130
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	25.09	26.00	1.233	42.9	1.009	-0.01	0.109	0.136
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	25.09	26.00	1.233	42.9	1.009	0.03	0.053	0.066
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Cheek	0mm	Ant 3	DSI5/10/15	40185	2549.5	25.09	26.00	1.233	42.9	1.009	0.06	0.114	0.142
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Tilted	0mm	Ant 3	DSI5/10/15	40185	2549.5	25.09	26.00	1.233	42.9	1.009	0.02	0.043	0.054
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	40185	2549.5	19.47	20.50	1.268	62.9	1.006	0.03	0.805	1.027
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	40185	2549.5	19.47	20.50	1.268	62.9	1.006	-0.12	0.908	1.158
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5	40185	2549.5	19.47	20.50	1.268	62.9	1.006	0.11	0.527	0.672
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5	40185	2549.5	19.47	20.50	1.268	62.9	1.006	0.07	0.606	0.773
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	39750	2506	19.32	20.50	1.312	62.9	1.006	0.11	0.627	0.828
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	40620	2593	19.15	20.50	1.365	62.9	1.006	0.01	0.772	1.060
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	41055	2636.5	19.28	20.50	1.324	62.9	1.006	0.06	0.678	0.903
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	41490	2680	19.23	20.50	1.340	62.9	1.006	0.07	0.517	0.697
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	39750	2506	19.32	20.50	1.312	62.9	1.006	0.06	0.687	0.907
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	40620	2593	19.15	20.50	1.365	62.9	1.006	0.04	0.809	1.111
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	41055	2636.5	19.28	20.50	1.324	62.9	1.006	0.09	0.684	0.911
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	41490	2680	19.23	20.50	1.340	62.9	1.006	0.12	0.557	0.751
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5	39750	2506	19.32	20.50	1.312	62.9	1.006	0.01	0.477	0.630
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5	40620	2593	19.15	20.50	1.365	62.9	1.006	0.01	0.543	0.745
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5	41055	2636.5	19.28	20.50	1.324	62.9	1.006	-0.1	0.463	0.617
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5	41490	2680	19.23	20.50	1.340	62.9	1.006	-0.16	0.365	0.492
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5	39750	2506	19.32	20.50	1.312	62.9	1.006	-0.06	0.465	0.614
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5	40620	2593	19.15	20.50	1.365	62.9	1.006	0.12	0.570	0.782

	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5	41055	2636.5	19.28	20.50	1.324	62.9	1.006	0.13	0.490	0.653
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5	41490	2680	19.23	20.50	1.340	62.9	1.006	0.14	0.382	0.515
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	40185	2549.5	19.39	20.50	1.291	62.9	1.006	0.12	0.768	0.998
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	40185	2549.5	19.39	20.50	1.291	62.9	1.006	0.09	0.807	1.048
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5	40185	2549.5	19.39	20.50	1.291	62.9	1.006	0.12	0.523	0.679
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5	40185	2549.5	19.39	20.50	1.291	62.9	1.006	0.12	0.585	0.760
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	39750	2506	19.27	20.50	1.327	62.9	1.006	0.07	0.613	0.819
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	40620	2593	19.05	20.50	1.396	62.9	1.006	0.02	0.710	0.997
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	41055	2636.5	19.20	20.50	1.349	62.9	1.006	0.06	0.638	0.866
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	41490	2680	19.21	20.50	1.346	62.9	1.006	0.11	0.497	0.673
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	39750	2506	19.27	20.50	1.327	62.9	1.006	0.1	0.695	0.928
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	40620	2593	19.05	20.50	1.396	62.9	1.006	0.03	0.774	1.087
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	41055	2636.5	19.20	20.50	1.349	62.9	1.006	0.12	0.663	0.900
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	41490	2680	19.21	20.50	1.346	62.9	1.006	0.03	0.558	0.755
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5	39750	2506	19.27	20.50	1.327	62.9	1.006	0.07	0.445	0.594
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5	40620	2593	19.05	20.50	1.396	62.9	1.006	-0.11	0.492	0.691
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5	41055	2636.5	19.20	20.50	1.349	62.9	1.006	-0.02	0.413	0.560
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5	41490	2680	19.21	20.50	1.346	62.9	1.006	0.05	0.339	0.459
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5	39750	2506	19.27	20.50	1.327	62.9	1.006	-0.05	0.439	0.586
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5	40620	2593	19.05	20.50	1.396	62.9	1.006	-0.11	0.518	0.728
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5	41055	2636.5	19.20	20.50	1.349	62.9	1.006	-0.15	0.428	0.581
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5	41490	2680	19.21	20.50	1.346	62.9	1.006	0.15	0.354	0.479
	LTE Band 41	20M	QPSK	100	0	Right Cheek	0mm	Ant 5	DSI5	40185	2549.5	19.32	20.50	1.312	62.9	1.006	0.03	0.816	1.077
	LTE Band 41	20M	QPSK	100	0	Right Tilted	0mm	Ant 5	DSI5	40185	2549.5	19.32	20.50	1.312	62.9	1.006	0.01	0.843	1.113
	LTE Band 41	20M	QPSK	100	0	Left Cheek	0mm	Ant 5	DSI5	40185	2549.5	19.32	20.50	1.312	62.9	1.006	0.12	0.541	0.714
	LTE Band 41	20M	QPSK	100	0	Left Tilted	0mm	Ant 5	DSI5	40185	2549.5	19.32	20.50	1.312	62.9	1.006	0.01	0.623	0.822
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	40185	2549.5	18.50	19.50	1.259	62.9	1.006	0.09	0.594	0.752
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	40185	2549.5	18.50	19.50	1.259	62.9	1.006	0.04	0.651	0.824
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI10/15	40185	2549.5	18.50	19.50	1.259	62.9	1.006	0.05	0.417	0.528
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI10/15	40185	2549.5	18.50	19.50	1.259	62.9	1.006	0.02	0.478	0.605
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	39750	2506	18.41	19.50	1.285	62.9	1.006	0.1	0.493	0.637
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	40620	2593	18.20	19.50	1.349	62.9	1.006	0.11	0.575	0.780
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	41055	2636.5	18.32	19.50	1.312	62.9	1.006	0.09	0.509	0.672
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	41490	2680	18.20	19.50	1.349	62.9	1.006	0.06	0.406	0.551
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	39750	2506	18.41	19.50	1.285	62.9	1.006	0.05	0.550	0.711
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	40620	2593	18.20	19.50	1.349	62.9	1.006	0.12	0.625	0.848
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	41055	2636.5	18.32	19.50	1.312	62.9	1.006	0.11	0.548	0.723
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	41490	2680	18.20	19.50	1.349	62.9	1.006	0.05	0.441	0.598
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI10/15	40185	2549.5	18.45	19.50	1.274	62.9	1.006	0.08	0.563	0.721
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	40185	2549.5	18.45	19.50	1.274	62.9	1.006	0.04	0.653	0.837
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI10/15	40185	2549.5	18.45	19.50	1.274	62.9	1.006	0.05	0.396	0.507
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI10/15	40185	2549.5	18.45	19.50	1.274	62.9	1.006	-0.01	0.443	0.568
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI10/15	39750	2506	18.35	19.50	1.303	62.9	1.006	0.12	0.498	0.653
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI10/15	40620	2593	18.17	19.50	1.358	62.9	1.006	0.03	0.546	0.746
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI10/15	41055	2636.5	18.30	19.50	1.318	62.9	1.006	0.01	0.505	0.670
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI10/15	41490	2680	18.19	19.50	1.352	62.9	1.006	0.08	0.390	0.530
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	39750	2506	18.35	19.50	1.303	62.9	1.006	0.02	0.563	0.738
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	40620	2593	18.17	19.50	1.358	62.9	1.006	0.04	0.620	0.847
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	41055	2636.5	18.30	19.50	1.318	62.9	1.006	0.02	0.534	0.708
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	41490	2680	18.19	19.50	1.352	62.9	1.006	0.1	0.447	0.608
	LTE Band 41	20M	QPSK	100	0	Right Cheek	0mm	Ant 5	DSI10/15	40185	2549.5	18.30	19.50	1.318	62.9	1.006	0.05	0.587	0.778
	LTE Band 41	20M	QPSK	100	0	Right Tilted	0mm	Ant 5	DSI10/15	40185	2549.5	18.30	19.50	1.318	62.9	1.006	0.11	0.651	0.863
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 6	DSI5	40185	2549.5	18.44	19.50	1.276	62.9	1.006	0.03	0.163	0.209
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 6	DSI5	40185	2549.5	18.44	19.50	1.276	62.9	1.006	0.07	0.141	0.181
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	40185	2549.5	18.44	19.50	1.276	62.9	1.006	0.02	0.695	0.892
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 6	DSI5	40185	2549.5	18.44	19.50	1.276	62.9	1.006	0.08	0.386	0.496

	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	39750	2506	18.29	19.50	1.321	62.9	1.006	0.01	0.882	1.172
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	40620	2593	18.32	19.50	1.312	62.9	1.006	0.09	0.575	0.759
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	41055	2636.5	18.16	19.50	1.361	62.9	1.006	0.01	0.473	0.648
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI5	41490	2680	18.32	19.50	1.312	62.9	1.006	0.12	0.437	0.577
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 6	DSI5	40185	2549.5	18.38	19.50	1.294	62.9	1.006	0.03	0.146	0.190
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 6	DSI5	40185	2549.5	18.38	19.50	1.294	62.9	1.006	-0.01	0.147	0.191
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	40185	2549.5	18.38	19.50	1.294	62.9	1.006	0.11	0.670	0.872
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 6	DSI5	40185	2549.5	18.38	19.50	1.294	62.9	1.006	0.03	0.358	0.466
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	39750	2506	18.27	19.50	1.327	62.9	1.006	0.1	0.714	0.953
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	40620	2593	18.24	19.50	1.337	62.9	1.006	0.01	0.536	0.721
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	41055	2636.5	18.17	19.50	1.358	62.9	1.006	0.08	0.467	0.638
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI5	41490	2680	18.31	19.50	1.315	62.9	1.006	0.09	0.427	0.565
	LTE Band 41	20M	QPSK	100	0	Left Cheek	0mm	Ant 6	DSI5	40185	2549.5	18.34	19.50	1.306	62.9	1.006	0.06	0.654	0.859
	LTE Band 41	20M	QPSK	1	0	Right Cheek	0mm	Ant 6	DSI10/15	40185	2549.5	17.63	18.50	1.222	62.9	1.006	0.08	0.126	0.155
	LTE Band 41	20M	QPSK	1	0	Right Tilted	0mm	Ant 6	DSI10/15	40185	2549.5	17.63	18.50	1.222	62.9	1.006	0.03	0.100	0.123
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	40185	2549.5	17.63	18.50	1.222	62.9	1.006	0.12	0.555	0.682
	LTE Band 41	20M	QPSK	1	0	Left Tilted	0mm	Ant 6	DSI10/15	40185	2549.5	17.63	18.50	1.222	62.9	1.006	0.11	0.305	0.375
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	39750	2506	17.49	18.50	1.262	62.9	1.006	0.06	0.543	0.689
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	40620	2593	17.52	18.50	1.253	62.9	1.006	0.01	0.457	0.576
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	41055	2636.5	17.36	18.50	1.300	62.9	1.006	0.12	0.379	0.496
	LTE Band 41	20M	QPSK	1	0	Left Cheek	0mm	Ant 6	DSI10/15	41490	2680	17.52	18.50	1.253	62.9	1.006	0.09	0.326	0.411
	LTE Band 41	20M	QPSK	50	0	Right Cheek	0mm	Ant 6	DSI10/15	40185	2549.5	17.58	18.50	1.236	62.9	1.006	0.08	0.119	0.148
	LTE Band 41	20M	QPSK	50	0	Right Tilted	0mm	Ant 6	DSI10/15	40185	2549.5	17.58	18.50	1.236	62.9	1.006	0.11	0.089	0.111
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI10/15	40185	2549.5	17.58	18.50	1.236	62.9	1.006	0.01	0.550	0.684
	LTE Band 41	20M	QPSK	50	0	Left Tilted	0mm	Ant 6	DSI10/15	40185	2549.5	17.58	18.50	1.236	62.9	1.006	0.06	0.287	0.357
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI10/15	39750	2506	17.47	18.50	1.268	62.9	1.006	0.11	0.563	0.718
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI10/15	40620	2593	17.44	18.50	1.276	62.9	1.006	0.09	0.435	0.559
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI10/15	41055	2636.5	17.37	18.50	1.297	62.9	1.006	0.03	0.364	0.475
	LTE Band 41	20M	QPSK	50	0	Left Cheek	0mm	Ant 6	DSI10/15	41490	2680	17.51	18.50	1.256	62.9	1.006	0.07	0.313	0.395
	LTE Band 41	20M	QPSK	100	0	Left Cheek	0mm	Ant 6	DSI10/15	40185	2549.5	17.54	18.50	1.247	62.9	1.006	0.11	0.528	0.663
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	55830	3609	17.18	18.00	1.208	62.9	1.006	0.05	0.551	0.669
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	55830	3609	17.18	18.00	1.208	62.9	1.006	0.12	0.516	0.627
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI5	55830	3609	17.18	18.00	1.208	62.9	1.006	0.04	0.321	0.390
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI5	55830	3609	17.18	18.00	1.208	62.9	1.006	0.07	0.318	0.386
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	55340	3560	16.96	18.00	1.271	62.9	1.006	0.02	0.776	0.992
	LTE Band 48C	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	55830 55632	3609 3589.2	16.71	18.00	1.346	62.9	1.006	-0.15	0.612	0.829
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	56150	3641	17.00	18.00	1.259	62.9	1.006	0.08	0.625	0.792
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI5	56640	3690	17.06	18.00	1.242	62.9	1.006	0.08	0.625	0.781
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	55340	3560	16.96	18.00	1.271	62.9	1.006	0.11	0.534	0.683
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	56150	3641	17.00	18.00	1.259	62.9	1.006	0.04	0.446	0.565
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI5	56640	3690	17.06	18.00	1.242	62.9	1.006	-0.01	0.422	0.527
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	55830	3609	17.11	18.00	1.227	62.9	1.006	0.06	0.527	0.651
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	55830	3609	17.11	18.00	1.227	62.9	1.006	0.1	0.510	0.630
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI5	55830	3609	17.11	18.00	1.227	62.9	1.006	0.04	0.360	0.445
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI5	55830	3609	17.11	18.00	1.227	62.9	1.006	0.1	0.346	0.427
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	55340	3560	16.87	18.00	1.297	62.9	1.006	0.04	0.611	0.797
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	56150	3641	16.91	18.00	1.285	62.9	1.006	0.11	0.598	0.773
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI5	56640	3690	16.97	18.00	1.268	62.9	1.006	0.05	0.625	0.797
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	55340	3560	16.87	18.00	1.297	62.9	1.006	0.03	0.547	0.714
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	56150	3641	16.91	18.00	1.285	62.9	1.006	0.11	0.455	0.588
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI5	56640	3690	16.97	18.00	1.268	62.9	1.006	-0.01	0.427	0.545
	LTE Band 48	20M	QPSK	100	0	Right Cheek	0mm	Ant 5	DSI5	55830	3609	17.09	18.00	1.233	62.9	1.006	0.1	0.551	0.684
	LTE Band 48	20M	QPSK	100	0	Right Tilted	0mm	Ant 5	DSI5	55830	3609	17.09	18.00	1.233	62.9	1.006	0.09	0.516	0.640
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	55830	3609	15.23	16.00	1.194	62.9	1.006	0.06	0.432	0.519
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant 5	DSI10/15	55830	3609	15.23	16.00	1.194	62.9	1.006	0.07	0.380	0.456
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant 5	DSI10/15	55830	3609	15.23	16.00	1.194	62.9	1.006	0.01	0.253	0.304

	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant 5	DSI10/15	55830	3609	15.23	16.00	1.194	62.9	1.006	0.1	0.250	0.300
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	55340	3560	15.04	16.00	1.247	62.9	1.006	0.05	0.489	0.614
	LTE Band 48C	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	55830 55632	3609 3589.2	14.66	16.00	1.361	62.9	1.006	-0.09	0.403	0.552
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	56150	3641	15.05	16.00	1.245	62.9	1.006	0.01	0.401	0.502
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 5	DSI10/15	56640	3690	15.09	16.00	1.233	62.9	1.006	0.08	0.405	0.502
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 5	DSI10/15	55830	3609	15.16	16.00	1.213	62.9	1.006	0.12	0.420	0.513
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant 5	DSI10/15	55830	3609	15.16	16.00	1.213	62.9	1.006	0.01	0.384	0.469
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant 5	DSI10/15	55830	3609	15.16	16.00	1.213	62.9	1.006	-0.01	0.252	0.308
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant 5	DSI10/15	55830	3609	15.16	16.00	1.213	62.9	1.006	0.05	0.245	0.299
	LTE Band 48	20M	QPSK	100	0	Right Cheek	0mm	Ant 5	DSI10/15	55830	3609	15.13	16.00	1.222	62.9	1.006	-0.01	0.386	0.474
15	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI5	55830	3609	24.09	25.00	1.233	62.9	1.006	0.09	0.862	**1.069**
	LTE Band 48C	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI5	55830 55632	3609 3589.2	23.71	25.00	1.346	62.9	1.006	0.13	0.735	0.995
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant 10	DSI5	55830	3609	24.09	25.00	1.233	62.9	1.006	0.07	0.244	0.303
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant 10	DSI5	55830	3609	24.09	25.00	1.233	62.9	1.006	0.05	0.199	0.247
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant 10	DSI5	55830	3609	24.09	25.00	1.233	62.9	1.006	0.07	0.102	0.127
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI5	55340	3560	23.96	25.00	1.271	62.9	1.006	0.01	0.685	0.876
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI5	56150	3641	23.94	25.00	1.276	62.9	1.006	0.01	0.678	0.871
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI5	56640	3690	24.07	25.00	1.239	62.9	1.006	0.03	0.645	0.804
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI5	55830	3609	23.23	24.00	1.194	62.9	1.006	0.07	0.650	0.781
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant 10	DSI5	55830	3609	23.23	24.00	1.194	62.9	1.006	0.05	0.196	0.235
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant 10	DSI5	55830	3609	23.23	24.00	1.194	62.9	1.006	0.04	0.165	0.198
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant 10	DSI5	55830	3609	23.23	24.00	1.194	62.9	1.006	0.07	0.086	0.103
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI5	55340	3560	23.07	24.00	1.239	62.9	1.006	0.02	0.594	0.740
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI5	56150	3641	23.03	24.00	1.250	62.9	1.006	0.07	0.583	0.733
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI5	56640	3690	23.18	24.00	1.208	62.9	1.006	0.1	0.572	0.695
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI5	55830	3609	23.16	24.00	1.213	62.9	1.006	0.02	0.549	0.670
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI10/15	55830	3609	22.60	23.50	1.230	62.9	1.006	-0.01	0.594	0.735
	LTE Band 48	20M	QPSK	1	0	Right Tilted	0mm	Ant 10	DSI10/15	55830	3609	22.60	23.50	1.230	62.9	1.006	0.03	0.207	0.256
	LTE Band 48	20M	QPSK	1	0	Left Cheek	0mm	Ant 10	DSI10/15	55830	3609	22.60	23.50	1.230	62.9	1.006	0.04	0.170	0.210
	LTE Band 48	20M	QPSK	1	0	Left Tilted	0mm	Ant 10	DSI10/15	55830	3609	22.60	23.50	1.230	62.9	1.006	-0.05	0.079	0.098
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI10/15	55340	3560	22.43	23.50	1.279	62.9	1.006	0.17	0.527	0.678
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI10/15	56150	3641	22.36	23.50	1.300	62.9	1.006	0.18	0.601	0.786
	LTE Band 48C	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI10/15	55830 55632	3609 3589.2	22.12	23.50	1.374	62.9	1.006	0.05	0.522	0.722
	LTE Band 48	20M	QPSK	1	0	Right Cheek	0mm	Ant 10	DSI10/15	56640	3690	22.47	23.50	1.268	62.9	1.006	0.1	0.574	0.732
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI10/15	55830	3609	22.48	23.50	1.265	62.9	1.006	0.03	0.491	0.625
	LTE Band 48	20M	QPSK	50	0	Right Tilted	0mm	Ant 10	DSI10/15	55830	3609	22.48	23.50	1.265	62.9	1.006	-0.17	0.209	0.266
	LTE Band 48	20M	QPSK	50	0	Left Cheek	0mm	Ant 10	DSI10/15	55830	3609	22.48	23.50	1.265	62.9	1.006	0.05	0.170	0.216
	LTE Band 48	20M	QPSK	50	0	Left Tilted	0mm	Ant 10	DSI10/15	55830	3609	22.48	23.50	1.265	62.9	1.006	-0.12	0.074	0.094
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI10/15	55340	3560	22.31	23.50	1.315	62.9	1.006	0.12	0.494	0.654
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI10/15	56150	3641	22.35	23.50	1.303	62.9	1.006	-0.1	0.501	0.657
	LTE Band 48	20M	QPSK	50	0	Right Cheek	0mm	Ant 10	DSI10/15	56640	3690	22.45	23.50	1.274	62.9	1.006	-0.06	0.508	0.651
	LTE Band 48	20M	QPSK	100	0	Right Cheek	0mm	Ant 10	DSI10/15	55830	3609	22.40	23.50	1.288	62.9	1.006	0.04	0.501	0.649

<5GNR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	136100	680.5	24.00	25.20	1.318	-0.13	0.270	0.356
	N71	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	136100	680.5	24.00	25.20	1.318	0.05	0.054	0.071
	N71	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	136100	680.5	24.00	25.20	1.318	-0.07	0.617	0.813
	N71	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	136100	680.5	24.00	25.20	1.318	0.04	0.079	0.104
	N71	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	136100	680.5	23.58	25.20	1.452	-0.07	0.412	0.598
	N71	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	136100	680.5	23.58	25.20	1.452	-0.08	0.077	0.112
16	N71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	136100	680.5	23.58	25.20	1.452	-0.06	0.814	**1.182**
	N71	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	136100	680.5	23.58	25.20	1.452	-0.07	0.102	0.148
	N71	20M	QPSK	100	0	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	136100	680.5	23.20	24.20	1.259	0.03	0.577	0.726
	N71	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 10/15	136100	680.5	22.07	23.20	1.297	-0.1	0.214	0.278
	N71	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 10/15	136100	680.5	22.07	23.20	1.297	0	0.043	0.056
	N71	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 10/15	136100	680.5	22.07	23.20	1.297	-0.1	0.605	0.785
	N71	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 10/15	136100	680.5	22.07	23.20	1.297	-0.14	0.063	0.082
	N71	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 10/15	136100	680.5	22.05	23.20	1.303	-0.14	0.327	0.426
	N71	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 10/15	136100	680.5	22.05	23.20	1.303	-0.01	0.061	0.079
	N71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 10/15	136100	680.5	22.05	23.20	1.303	-0.14	0.601	0.783
	N71	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 10/15	136100	680.5	22.05	23.20	1.303	0.01	0.081	0.106
	N71	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI5/10/15	136100	680.5	24.13	25.20	1.279	0.03	0.088	0.113
	N71	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI5/10/15	136100	680.5	24.13	25.20	1.279	0.07	0.046	0.059
	N71	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI5/10/15	136100	680.5	24.13	25.20	1.279	-0.13	0.074	0.095
	N71	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI5/10/15	136100	680.5	24.13	25.20	1.279	0.04	0.046	0.059
	N71	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	DSI5/10/15	136100	680.5	23.99	25.20	1.321	0.05	0.119	0.157
	N71	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	DSI5/10/15	136100	680.5	23.99	25.20	1.321	-0.13	0.067	0.089
	N71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	DSI5/10/15	136100	680.5	23.99	25.20	1.321	-0.03	0.081	0.107
	N71	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	DSI5/10/15	136100	680.5	23.99	25.20	1.321	0.05	0.049	0.065
	N5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	167300	836.5	22.58	23.70	1.294	0.11	0.224	0.290
	N5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	167300	836.5	22.58	23.70	1.294	0.02	0.095	0.123
	N5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	167300	836.5	22.58	23.70	1.294	0.16	0.677	0.876
	N5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	167300	836.5	22.58	23.70	1.294	-0.03	0.058	0.075
	N5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	167300	836.5	22.55	23.70	1.303	0.15	0.226	0.295
	N5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	167300	836.5	22.55	23.70	1.303	0.05	0.094	0.122
17	N5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	167300	836.5	22.55	23.70	1.303	-0.03	0.780	**1.016**
	N5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	167300	836.5	22.55	23.70	1.303	-0.15	0.073	0.095
	N5	20M	QPSK	100	0	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	167300	836.5	22.48	23.70	1.324	0.07	0.619	0.820
	N5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 10/15	167300	836.5	21.56	22.70	1.300	0.04	0.173	0.225
	N5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 10/15	167300	836.5	21.56	22.70	1.300	0.01	0.072	0.094
	N5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 10/15	167300	836.5	21.56	22.70	1.300	-0.09	0.435	0.566
	N5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 10/15	167300	836.5	21.56	22.70	1.300	0.02	0.048	0.062
	N5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 10/15	167300	836.5	21.55	22.70	1.303	0.01	0.195	0.254
	N5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 10/15	167300	836.5	21.55	22.70	1.303	-0.07	0.073	0.095
	N5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 10/15	167300	836.5	21.55	22.70	1.303	0.03	0.497	0.648
	N5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 10/15	167300	836.5	21.55	22.70	1.303	0.04	0.057	0.074
	N5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI5/10/15	167300	836.5	23.45	24.70	1.334	0.14	0.087	0.116
	N5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI5/10/15	167300	836.5	23.45	24.70	1.334	0.02	0.045	0.060
	N5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI5/10/15	167300	836.5	23.45	24.70	1.334	0.1	0.053	0.071
	N5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI5/10/15	167300	836.5	23.45	24.70	1.334	0.14	0.031	0.041
	N5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	DSI5/10/15	167300	836.5	23.30	24.70	1.380	-0.15	0.101	0.139
	N5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	DSI5/10/15	167300	836.5	23.30	24.70	1.380	0.06	0.046	0.063
	N5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	DSI5/10/15	167300	836.5	23.30	24.70	1.380	-0.05	0.063	0.087
	N5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	DSI5/10/15	167300	836.5	23.30	24.70	1.380	0.01	0.033	0.046
18	N66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	349000	1745	17.53	18.20	1.167	-0.13	0.891	**1.040**
	N66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	349000	1745	17.53	18.20	1.167	-0.19	0.301	0.351
	N66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	349000	1745	17.53	18.20	1.167	-0.06	0.247	0.288

	N66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	349000	1745	17.53	18.20	1.167	-0.03	0.158	0.184
	N66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	349000	1745	17.49	18.20	1.178	0.05	0.802	0.944
	N66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	349000	1745	17.49	18.20	1.178	0.03	0.274	0.323
	N66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	349000	1745	17.49	18.20	1.178	-0.18	0.219	0.258
	N66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	349000	1745	17.49	18.20	1.178	0.19	0.141	0.166
	N66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	349000	1745	17.48	18.20	1.180	0.05	0.851	1.004
	N66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	349000	1745	16.47	17.20	1.183	-0.13	0.629	0.744
	N66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	349000	1745	16.47	17.20	1.183	-0.19	0.230	0.272
	N66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	349000	1745	16.47	17.20	1.183	-0.06	0.205	0.243
	N66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	349000	1745	16.47	17.20	1.183	-0.03	0.128	0.151
	N66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	349000	1745	16.40	17.20	1.202	0.05	0.652	0.784
	N66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	349000	1745	16.40	17.20	1.202	0.03	0.233	0.280
	N66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	349000	1745	16.40	17.20	1.202	-0.18	0.203	0.244
	N66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	349000	1745	16.40	17.20	1.202	0.19	0.121	0.145
	N66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	349000	1745	24.15	25.20	1.274	0.17	0.189	0.241
	N66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	349000	1745	24.15	25.20	1.274	0.15	0.133	0.169
	N66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	349000	1745	24.15	25.20	1.274	-0.14	0.150	0.191
	N66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	349000	1745	24.15	25.20	1.274	0.14	0.114	0.145
	N66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	349000	1745	23.89	25.20	1.352	-0.07	0.179	0.242
	N66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	349000	1745	23.89	25.20	1.352	-0.04	0.122	0.165
	N66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	349000	1745	23.89	25.20	1.352	0.11	0.157	0.212
	N66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	349000	1745	23.89	25.20	1.352	0.1	0.120	0.162
	N66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	DSI 5/10/15	349000	1745	23.97	25.20	1.327	0.18	0.187	0.248
	N66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	DSI 5/10/15	349000	1745	23.97	25.20	1.327	0.14	0.217	0.288
	N66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	DSI 5/10/15	349000	1745	23.97	25.20	1.327	0.01	0.107	0.142
	N66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	DSI 5/10/15	349000	1745	23.97	25.20	1.327	-0.02	0.145	0.192
	N66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	DSI 5/10/15	349000	1745	23.89	25.20	1.352	0.1	0.179	0.242
	N66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	DSI 5/10/15	349000	1745	23.89	25.20	1.352	0.04	0.255	0.345
	N66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	DSI 5/10/15	349000	1745	23.89	25.20	1.352	-0.11	0.113	0.153
	N66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	DSI 5/10/15	349000	1745	23.89	25.20	1.352	0.13	0.145	0.196
	N66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	DSI 5/10/15	349000	1745	22.22	23.20	1.253	-0.02	0.038	0.048
	N66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	DSI 5/10/15	349000	1745	22.22	23.20	1.253	-0.16	0.028	0.035
	N66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	DSI 5/10/15	349000	1745	22.22	23.20	1.253	-0.16	0.198	0.248
	N66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	DSI 5/10/15	349000	1745	22.22	23.20	1.253	0.14	0.071	0.089
	N66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 6	DSI 5/10/15	349000	1745	22.06	23.20	1.300	-0.07	0.044	0.057
	N66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 6	DSI 5/10/15	349000	1745	22.06	23.20	1.300	0.03	0.030	0.039
	N66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 6	DSI 5/10/15	349000	1745	22.06	23.20	1.300	0.13	0.247	0.321
	N66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 6	DSI 5/10/15	349000	1745	22.06	23.20	1.300	-0.14	0.072	0.094
19	N25	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	376500	1882.5	17.11	18.20	1.285	-0.17	0.866	**1.113**
	N25	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	376500	1882.5	17.11	18.20	1.285	0.15	0.232	0.298
	N25	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	376500	1882.5	17.11	18.20	1.285	-0.07	0.205	0.263
	N25	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	376500	1882.5	17.11	18.20	1.285	0.04	0.104	0.134
	N25	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	376500	1882.5	17.08	18.20	1.294	0.05	0.802	1.038
	N25	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	376500	1882.5	17.08	18.20	1.294	0.13	0.255	0.330
	N25	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	376500	1882.5	17.08	18.20	1.294	0.18	0.233	0.302
	N25	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	376500	1882.5	17.08	18.20	1.294	-0.12	0.118	0.153
	N25	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	376500	1882.5	17.05	18.20	1.303	0.01	0.800	1.043
	N25	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	376500	1882.5	16.11	17.20	1.285	-0.17	0.620	0.797
	N25	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	376500	1882.5	16.11	17.20	1.285	0.15	0.210	0.270
	N25	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	376500	1882.5	16.11	17.20	1.285	-0.07	0.185	0.238
	N25	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	376500	1882.5	16.11	17.20	1.285	0.04	0.090	0.116
	N25	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	376500	1882.5	16.03	17.20	1.309	0.05	0.581	0.761
	N25	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	376500	1882.5	16.03	17.20	1.309	0.13	0.201	0.263
	N25	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	376500	1882.5	16.03	17.20	1.309	0.18	0.182	0.238
	N25	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	376500	1882.5	16.03	17.20	1.309	-0.12	0.089	0.117
	N25	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	376500	1882.5	24.21	25.20	1.256	0.18	0.191	0.240

	N25	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	376500	1882.5	24.21	25.20	1.256	0.04	0.085	0.107
	N25	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	376500	1882.5	24.21	25.20	1.256	0.02	0.162	0.203
	N25	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	376500	1882.5	24.21	25.20	1.256	-0.17	0.114	0.143
	N25	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	376500	1882.5	23.78	25.20	1.387	-0.08	0.185	0.257
	N25	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	376500	1882.5	23.78	25.20	1.387	0.01	0.078	0.108
	N25	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	376500	1882.5	23.78	25.20	1.387	-0.17	0.156	0.216
	N25	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	376500	1882.5	23.78	25.20	1.387	0.04	0.091	0.126
20	N30	10M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	462000	2310	17.98	18.70	1.180	-0.07	0.977	**1.153**
	N30	10M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	462000	2310	17.98	18.70	1.180	-0.01	0.276	0.326
	N30	10M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	462000	2310	17.98	18.70	1.180	-0.06	0.251	0.296
	N30	10M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	462000	2310	17.98	18.70	1.180	-0.04	0.123	0.145
	N30	10M	QPSK	25	14	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	462000	2310	17.89	18.70	1.205	-0.03	0.856	1.032
	N30	10M	QPSK	25	14	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	462000	2310	17.89	18.70	1.205	0.08	0.265	0.319
	N30	10M	QPSK	25	14	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	462000	2310	17.89	18.70	1.205	-0.1	0.234	0.282
	N30	10M	QPSK	25	14	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	462000	2310	17.89	18.70	1.205	0.11	0.120	0.145
	N30	10M	QPSK	50	0	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	462000	2310	17.82	18.70	1.225	0.09	0.927	1.135
	N30	10M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	462000	2310	16.97	17.70	1.183	-0.07	0.660	0.781
	N30	10M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	462000	2310	16.97	17.70	1.183	-0.01	0.228	0.270
	N30	10M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	462000	2310	16.97	17.70	1.183	-0.06	0.209	0.247
	N30	10M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	462000	2310	16.97	17.70	1.183	-0.04	0.100	0.118
	N30	10M	QPSK	25	14	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	462000	2310	16.92	17.70	1.183	-0.07	0.671	0.781
	N30	10M	QPSK	25	14	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	462000	2310	16.92	17.70	1.197	0.08	0.219	0.262
	N30	10M	QPSK	25	14	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	462000	2310	16.92	17.70	1.197	-0.1	0.192	0.230
	N30	10M	QPSK	25	14	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	462000	2310	16.92	17.70	1.197	0.11	0.097	0.116
	N30	10M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	462000	2310	23.77	25.20	1.390	-0.07	0.173	0.240
	N30	10M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	462000	2310	23.77	25.20	1.390	0.02	0.076	0.106
	N30	10M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	462000	2310	23.77	25.20	1.390	-0.07	0.204	0.284
	N30	10M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	462000	2310	23.77	25.20	1.390	0.05	0.072	0.100
	N30	10M	QPSK	25	14	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	462000	2310	23.64	25.20	1.432	-0.08	0.169	0.242
	N30	10M	QPSK	25	14	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	462000	2310	23.64	25.20	1.432	0.19	0.077	0.110
	N30	10M	QPSK	25	14	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	462000	2310	23.64	25.20	1.432	-0.11	0.195	0.279
	N30	10M	QPSK	25	14	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	462000	2310	23.64	25.20	1.432	-0.04	0.072	0.103
21	N7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	507000	2535	15.98	16.70	1.180	-0.04	0.944	**1.114**
	N7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	507000	2535	15.98	16.70	1.180	-0.16	0.238	0.281
	N7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	507000	2535	15.98	16.70	1.180	-0.01	0.211	0.249
	N7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	507000	2535	15.98	16.70	1.180	-0.18	0.101	0.119
	N7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	507000	2535	15.89	16.70	1.205	-0.05	0.878	1.058
	N7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	507000	2535	15.89	16.70	1.205	-0.05	0.230	0.277
	N7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	507000	2535	15.89	16.70	1.205	-0.18	0.219	0.264
	N7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	507000	2535	15.89	16.70	1.205	0.15	0.101	0.122
	N7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	507000	2535	15.87	16.70	1.211	-0.04	0.827	1.001
	N7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	507000	2535	14.94	15.70	1.191	-0.04	0.601	0.716
	N7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	507000	2535	14.94	15.70	1.191	-0.16	0.188	0.224
	N7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	507000	2535	14.94	15.70	1.191	-0.01	0.174	0.207
	N7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	507000	2535	14.94	15.70	1.191	-0.18	0.082	0.098
	N7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 10/15	507000	2535	14.85	15.70	1.216	-0.05	0.562	0.683
	N7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	DSI 10/15	507000	2535	14.85	15.70	1.216	-0.05	0.185	0.225
	N7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	DSI 10/15	507000	2535	14.85	15.70	1.216	-0.18	0.178	0.216
	N7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	DSI 10/15	507000	2535	14.85	15.70	1.216	0.15	0.081	0.099
	N7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	507000	2535	23.27	24.20	1.239	-0.15	0.161	0.199
	N7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	507000	2535	23.27	24.20	1.239	-0.09	0.097	0.120
	N7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	507000	2535	23.27	24.20	1.239	-0.19	0.192	0.238
	N7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	507000	2535	23.27	24.20	1.239	0.02	0.057	0.071
	N7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	DSI5/10/15	507000	2535	23.22	24.20	1.253	-0.13	0.162	0.203
	N7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	DSI5/10/15	507000	2535	23.22	24.20	1.253	0.14	0.089	0.112
	N7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	DSI5/10/15	507000	2535	23.22	24.20	1.253	0.13	0.189	0.237

	N7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	DSI5/10/15	507000	2535	23.22	24.20	1.253	-0.17	0.065	0.081
22	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	DSI 5	518598	2592.99	15.41	16.70	1.346	-0.04	0.791	**1.065**
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 2	DSI 5	518598	2592.99	15.41	16.70	1.346	0.01	0.228	0.307
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 2	DSI 5	518598	2592.99	15.41	16.70	1.346	0.19	0.191	0.257
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 2	DSI 5	518598	2592.99	15.41	16.70	1.346	-0.05	0.095	0.128
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 5	518598	2592.99	15.39	16.70	1.352	-0.09	0.755	1.021
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 5	518598	2592.99	15.39	16.70	1.352	-0.1	0.219	0.296
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 5	518598	2592.99	15.39	16.70	1.352	-0.1	0.184	0.249
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 5	518598	2592.99	15.39	16.70	1.352	0.02	0.088	0.119
	N41(PC2/3)	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 2	DSI 5	518598	2592.99	15.38	16.70	1.355	-0.04	0.712	0.965
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	DSI 10/15	518598	2592.99	13.71	14.70	1.256	-0.04	0.427	0.536
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 2	DSI 10/15	518598	2592.99	13.71	14.70	1.256	0.01	0.146	0.183
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 2	DSI 10/15	518598	2592.99	13.71	14.70	1.256	0.19	0.122	0.153
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 2	DSI 10/15	518598	2592.99	13.71	14.70	1.256	-0.05	0.063	0.079
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 10/15	518598	2592.99	13.64	14.70	1.276	-0.09	0.413	0.527
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 10/15	518598	2592.99	13.64	14.70	1.276	-0.1	0.138	0.176
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 10/15	518598	2592.99	13.64	14.70	1.276	-0.1	0.119	0.152
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 10/15	518598	2592.99	13.64	14.70	1.276	0.02	0.059	0.075
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.95	27.20	1.334	-0.04	0.271	0.361
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.95	27.20	1.334	0.09	0.129	0.172
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.95	27.20	1.334	-0.19	0.290	0.387
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.95	27.20	1.334	0.13	0.145	0.193
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.61	27.20	1.442	0.05	0.197	0.284
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.61	27.20	1.442	-0.04	0.100	0.144
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.61	27.20	1.442	-0.18	0.199	0.287
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI5/10/15	518598	2592.99	25.61	27.20	1.442	0.14	0.093	0.134
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	518598	2592.99	16.41	17.70	1.346	-0.01	0.547	0.736
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	518598	2592.99	16.41	17.70	1.346	0.03	0.779	1.048
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	518598	2592.99	16.41	17.70	1.346	0.15	0.449	0.604
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	518598	2592.99	16.41	17.70	1.346	0.19	0.460	0.619
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	518598	2592.99	16.39	17.70	1.352	-0.03	0.498	0.673
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	518598	2592.99	16.39	17.70	1.352	-0.09	0.745	1.007
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	518598	2592.99	16.39	17.70	1.352	-0.18	0.380	0.514
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	518598	2592.99	16.39	17.70	1.352	-0.1	0.411	0.556
	N41(PC2/3)	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	518598	2592.99	16.38	17.70	1.355	0.03	0.467	0.633
	N41(PC2/3)	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	518598	2592.99	16.38	17.70	1.355	0.03	0.734	0.995
	N41(PC2/3)	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	518598	2592.99	16.38	17.70	1.355	-0.18	0.371	0.503
	N41(PC2/3)	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	518598	2592.99	16.38	17.70	1.355	-0.1	0.409	0.554
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 10/15	518598	2592.99	15.57	16.70	1.297	-0.01	0.441	0.572
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	518598	2592.99	15.57	16.70	1.297	0.03	0.504	0.654
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 10/15	518598	2592.99	15.57	16.70	1.297	0.15	0.328	0.425
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 10/15	518598	2592.99	15.57	16.70	1.297	0.19	0.367	0.476
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 10/15	518598	2592.99	15.56	16.70	1.300	-0.03	0.394	0.512
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	518598	2592.99	15.56	16.70	1.300	-0.09	0.440	0.572
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 10/15	518598	2592.99	15.56	16.70	1.300	-0.18	0.303	0.394
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 10/15	518598	2592.99	15.56	16.70	1.300	-0.1	0.318	0.413
	N41(PC2/3)	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	518598	2592.99	15.51	16.70	1.315	-0.03	0.433	0.569
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.40	18.20	1.202	-0.02	0.154	0.185
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.40	18.20	1.202	0.05	0.120	0.144
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.40	18.20	1.202	0.14	0.814	0.979
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.40	18.20	1.202	0.08	0.354	0.426
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.37	18.20	1.211	-0.13	0.120	0.145
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.37	18.20	1.211	-0.16	0.095	0.115
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.37	18.20	1.211	-0.05	0.707	0.856
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.37	18.20	1.211	-0.15	0.278	0.337
	N41(PC2/3)	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.36	18.20	1.213	0.14	0.701	0.851

	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 10/15	518598	2592.99	15.43	16.20	1.194	-0.02	0.097	0.116
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 10/15	518598	2592.99	15.43	16.20	1.194	0.05	0.071	0.085
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 10/15	518598	2592.99	15.43	16.20	1.194	0.14	0.462	0.552
	N41(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 10/15	518598	2592.99	15.43	16.20	1.000	0.08	0.235	0.235
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 10/15	518598	2592.99	15.40	16.20	1.202	-0.13	0.075	0.090
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 10/15	518598	2592.99	15.40	16.20	1.202	-0.16	0.056	0.067
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 10/15	518598	2592.99	15.40	16.20	1.202	-0.05	0.420	0.505
	N41(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 10/15	518598	2592.99	15.40	16.20	1.202	-0.15	0.160	0.192

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	656000	3840	14.30	15.70	1.380	0.15	0.414	0.571
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	656000	3840	14.30	15.70	1.380	0.17	0.375	0.518
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	656000	3840	14.30	15.70	1.380	-0.11	0.246	0.340
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	656000	3840	14.30	15.70	1.380	0.04	0.237	0.327
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	656000	3840	14.27	15.70	1.390	0.04	0.378	0.525
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	656000	3840	14.27	15.70	1.390	-0.1	0.346	0.481
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	656000	3840	14.27	15.70	1.390	-0.08	0.223	0.310
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	656000	3840	14.27	15.70	1.390	-0.19	0.221	0.307
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 10/15	656000	3840	13.34	14.70	1.368	0.15	0.321	0.439
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	656000	3840	13.34	14.70	1.368	0.17	0.299	0.409
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 10/15	656000	3840	13.34	14.70	1.368	-0.11	0.192	0.263
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 10/15	656000	3840	13.34	14.70	1.368	0.04	0.188	0.257
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 10/15	656000	3840	13.30	14.70	1.380	0.04	0.304	0.420
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	656000	3840	13.30	14.70	1.380	-0.1	0.273	0.377
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 10/15	656000	3840	13.30	14.70	1.380	-0.08	0.184	0.254
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 10/15	656000	3840	13.30	14.70	1.380	-0.19	0.175	0.242
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	633332	3499.98	14.73	15.70	1.250	-0.18	0.551	0.689
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	633332	3499.98	14.73	15.70	1.250	-0.02	0.785	0.981
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	633332	3499.98	14.73	15.70	1.250	0.17	0.348	0.435
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	633332	3499.98	14.73	15.70	1.250	0.06	0.402	0.503
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	633332	3499.98	14.71	15.70	1.256	-0.17	0.550	0.691
24	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	633332	3499.98	14.71	15.70	1.256	-0.18	0.827	**1.039**
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	633332	3499.98	14.71	15.70	1.256	-0.14	0.345	0.433
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	633332	3499.98	14.71	15.70	1.256	0.08	0.380	0.477
	N77 Part 27Q(PC2/3)	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	633332	3499.98	14.65	15.70	1.274	0.01	0.541	0.689
	N77 Part 27Q(PC2/3)	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	633332	3499.98	14.65	15.70	1.274	-0.18	0.601	0.765
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 10/15	633332	3499.98	13.83	14.70	1.222	-0.18	0.445	0.544
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	633332	3499.98	13.83	14.70	1.222	-0.02	0.592	0.723
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 10/15	633332	3499.98	13.83	14.70	1.222	0.17	0.282	0.345
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 10/15	633332	3499.98	13.83	14.70	1.222	0.06	0.303	0.370
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 10/15	633332	3499.98	13.75	14.70	1.245	-0.17	0.435	0.541
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	633332	3499.98	13.75	14.70	1.245	-0.18	0.566	0.704
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 10/15	633332	3499.98	13.75	14.70	1.245	-0.14	0.274	0.341
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 10/15	633332	3499.98	13.75	14.70	1.245	0.08	0.303	0.377
	N77 Part 27Q(PC2/3)	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 10/15	633332	3499.98	13.72	14.70	1.253	0.01	0.543	0.680
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 5	656000	3840	22.31	23.20	1.227	-0.11	0.666	0.817
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 5	656000	3840	22.31	23.20	1.227	0.13	0.312	0.383
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 5	656000	3840	22.31	23.20	1.227	-0.11	0.200	0.245
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 5	656000	3840	22.31	23.20	1.227	0.19	0.150	0.184
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 5	656000	3840	22.28	23.20	1.236	-0.01	0.595	0.735
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 5	656000	3840	22.28	23.20	1.236	-0.17	0.300	0.371
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 5	656000	3840	22.28	23.20	1.236	-0.01	0.173	0.214
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 5	656000	3840	22.28	23.20	1.236	0.19	0.158	0.195
	N77 Part 27O(PC2/3)	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 10	DSI 5	656000	3840	22.22	23.20	1.253	-0.16	0.560	0.702
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 10/15	656000	3840	21.25	22.20	1.245	-0.11	0.513	0.638

	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 10/15	656000	3840	21.25	22.20	1.245	0.13	0.248	0.309
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 10/15	656000	3840	21.25	22.20	1.245	-0.11	0.172	0.214
	N77 Part 27O(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 10/15	656000	3840	21.25	22.20	1.245	0.19	0.115	0.143
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 10/15	656000	3840	21.19	22.20	1.262	-0.01	0.477	0.602
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 10/15	656000	3840	21.19	22.20	1.262	-0.17	0.244	0.308
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 10/15	656000	3840	21.19	22.20	1.262	-0.01	0.148	0.187
	N77 Part 27O(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 10/15	656000	3840	21.19	22.20	1.262	0.19	0.128	0.162
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 5	633332	3499.98	22.32	23.20	1.225	0.03	0.573	0.702
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 5	633332	3499.98	22.32	23.20	1.225	-0.06	0.408	0.500
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 5	633332	3499.98	22.32	23.20	1.225	-0.11	0.332	0.407
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 5	633332	3499.98	22.32	23.20	1.225	0.03	0.164	0.201
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 5	633332	3499.98	22.29	23.20	1.233	-0.03	0.638	0.787
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 5	633332	3499.98	22.29	23.20	1.233	0.19	0.346	0.427
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 5	633332	3499.98	22.29	23.20	1.233	-0.14	0.257	0.317
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 5	633332	3499.98	22.29	23.20	1.233	0.07	0.153	0.189
	N77 Part 27Q(PC2/3)	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 10	DSI 5	633332	3499.98	22.26	23.20	1.242	0.01	0.611	0.759
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 10	DSI 10/15	633332	3499.98	21.34	22.20	1.219	0.03	0.451	0.550
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 10	DSI 10/15	633332	3499.98	21.34	22.20	1.219	-0.06	0.325	0.396
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 10	DSI 10/15	633332	3499.98	21.34	22.20	1.219	-0.11	0.262	0.319
	N77 Part 27Q(PC2/3)	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 10	DSI 10/15	633332	3499.98	21.34	22.20	1.219	0.03	0.124	0.151
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 10	DSI 10/15	633332	3499.98	21.33	22.20	1.222	-0.03	0.489	0.597
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 10	DSI 10/15	633332	3499.98	21.33	22.20	1.222	0.19	0.286	0.349
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 10	DSI 10/15	633332	3499.98	21.33	22.20	1.222	-0.14	0.201	0.246
	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 10	DSI 10/15	633332	3499.98	21.33	22.20	1.222	0.07	0.120	0.147

<Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	0mm	Ant 4	Full	39	2441	16.55	17.00	1.109	77.07	1.298	0.06	0.168	0.242
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 4	Full	39	2441	16.55	17.00	1.109	77.07	1.298	0.06	0.222	0.320
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 4	Full	39	2441	16.55	17.00	1.109	77.07	1.298	0.1	0.351	0.505
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 4	Full	39	2441	16.55	17.00	1.109	77.07	1.298	0.06	0.306	0.441
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 4	Full	0	2402	16.01	17.00	1.256	77.07	1.298	0.05	0.416	0.678
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 4	Full	78	2480	15.26	17.00	1.493	77.07	1.298	-0.01	0.450	0.872
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Full	39	2441	17.35	18.00	1.161	77.07	1.298	0.1	0.278	0.419
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Full	39	2441	17.35	18.00	1.161	77.07	1.298	0.09	0.023	0.035
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Full	39	2441	17.35	18.00	1.161	77.07	1.298	0.04	0.145	0.219
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Full	39	2441	17.35	18.00	1.161	77.07	1.298	0.02	0.029	0.044
25	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Full	0	2402	17.02	18.00	1.253	77.07	1.298	-0.01	0.727	**1.183**
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Full	78	2480	16.37	18.00	1.455	77.07	1.298	0.06	0.368	0.695
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 4	Power level 2/3	39	2441	8.64	9.00	1.086	77.07	1.298	-0.1	0.030	0.042
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 4	Power level 2/3	39	2441	8.64	9.00	1.086	77.07	1.298	0.13	0.040	0.056
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 4	Power level 2/3	39	2441	8.64	9.00	1.086	77.07	1.298	-0.13	0.060	0.085
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 4	Power level 2/3	39	2441	8.64	9.00	1.086	77.07	1.298	-0.09	0.055	0.078
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 4	Power level 2/3	0	2402	8.24	9.00	1.191	77.07	1.298	0.06	0.069	0.107
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 4	Power level 2/3	78	2480	7.81	9.00	1.315	77.07	1.298	-0.1	0.076	0.130
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power level 2/3	39	2441	9.66	10.00	1.081	77.07	1.298	-0.08	0.052	0.073
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Power level 2/3	39	2441	9.66	10.00	1.081	77.07	1.298	-0.13	0.003	0.004
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Power level 2/3	39	2441	9.66	10.00	1.081	77.07	1.298	-0.1	0.035	0.049
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Power level 2/3	39	2441	9.66	10.00	1.081	77.07	1.298	0.12	0.005	0.007
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power level 2/3	0	2402	9.45	10.00	1.135	77.07	1.298	0.06	0.122	0.180
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power level 2/3	78	2480	9.03	10.00	1.250	77.07	1.298	-0.13	0.070	0.114

< WLAN2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	Power level 1	1	2412	15.85	16.50	1.161	97.06	1.030	0.06	0.336	0.402
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	Power level 1	1	2412	15.85	16.50	1.161	97.06	1.030	0.07	0.426	0.510
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 1	1	2412	15.85	16.50	1.161	97.06	1.030	0.07	0.688	0.823
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Power level 1	1	2412	15.85	16.50	1.161	97.06	1.030	0.01	0.635	0.760
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 1	6	2437	15.65	16.50	1.216	97.06	1.030	0.09	0.614	0.769
26	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 1	11	2462	15.45	16.50	1.274	97.06	1.030	0.04	0.852	**1.118**
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 1	1	2412	16.43	16.50	1.016	97.06	1.030	0.04	0.468	0.490
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	Power level 1	1	2412	16.43	16.50	1.016	97.06	1.030	0.09	0.043	0.045
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Power level 1	1	2412	16.43	16.50	1.016	97.06	1.030	0.04	0.233	0.244
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	Power level 1	1	2412	16.43	16.50	1.016	97.06	1.030	0.02	0.071	0.074
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 1	6	2437	15.85	16.50	1.161	97.06	1.030	0.04	0.340	0.407
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 1	11	2462	15.08	16.50	1.387	97.06	1.030	0.12	0.312	0.446
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	Power level 2	1	2412	12.10	13.50	1.380	97.06	1.030	0.1	0.146	0.208
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	Power level 2	1	2412	12.10	13.50	1.380	97.06	1.030	0.04	0.191	0.272
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 2	1	2412	12.10	13.50	1.380	97.06	1.030	0.09	0.293	0.417
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Power level 2	1	2412	12.10	13.50	1.380	97.06	1.030	0.09	0.286	0.407
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 2	6	2437	12.05	13.50	1.396	97.06	1.030	0.09	0.282	0.406
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 2	11	2462	11.71	13.50	1.510	97.06	1.030	0.08	0.294	0.457
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 2	1	2412	12.91	13.50	1.146	97.06	1.030	0.07	0.190	0.224
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	Power level 2	1	2412	12.91	13.50	1.146	97.06	1.030	0.06	0.020	0.024
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Power level 2	1	2412	12.91	13.50	1.146	97.06	1.030	0.01	0.107	0.126
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	Power level 2	1	2412	12.91	13.50	1.146	97.06	1.030	0.07	0.033	0.039
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 2	6	2437	12.34	13.50	1.306	97.06	1.030	0.04	0.149	0.200
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 2	11	2462	11.60	13.50	1.549	97.06	1.030	0.06	0.181	0.289
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+7	Power level 2	1	2412	15.55	16.50	1.245	97.06	1.030	0.08	0.205	0.263
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4+7	Power level 2	1	2412	15.55	16.50	1.245	97.06	1.030	-0.1	0.162	0.208
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+7	Power level 2	1	2412	15.55	16.50	1.245	97.06	1.030	0.14	0.236	0.303
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4+7	Power level 2	1	2412	15.55	16.50	1.245	97.06	1.030	-0.13	0.225	0.288
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+7	Power level 2	6	2437	15.21	16.50	1.346	97.06	1.030	-0.1	0.250	0.347
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+7	Power level 2	11	2462	14.72	16.50	1.507	97.06	1.030	-0.03	0.351	0.545
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4	Power level 3	1	2412	9.44	10.50	1.276	97.06	1.030	0.09	0.077	0.101
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4	Power level 3	1	2412	9.44	10.50	1.276	97.06	1.030	0.05	0.106	0.139
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 3	1	2412	9.44	10.50	1.276	97.06	1.030	0.06	0.165	0.217
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4	Power level 3	1	2412	9.44	10.50	1.276	97.06	1.030	0.12	0.160	0.210
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 3	6	2437	9.32	10.50	1.312	97.06	1.030	-0.01	0.156	0.211
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 3	11	2462	8.95	10.50	1.429	97.06	1.030	0.04	0.158	0.233
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 3	1	2412	9.92	10.50	1.143	97.06	1.030	0.02	0.102	0.120
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	Power level 3	1	2412	9.92	10.50	1.143	97.06	1.030	0.09	0.009	0.011
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Power level 3	1	2412	9.92	10.50	1.143	97.06	1.030	0.12	0.054	0.064
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	Power level 3	1	2412	9.92	10.50	1.143	97.06	1.030	0.06	0.015	0.018
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 3	6	2437	9.80	10.50	1.175	97.06	1.030	0.04	0.130	0.157
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power level 3	11	2462	8.58	10.50	1.556	97.06	1.030	0.09	0.100	0.160
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 4+7	Power level 3	1	2412	12.80	13.50	1.175	97.06	1.030	-0.01	0.111	0.134
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 4+7	Power level 3	1	2412	12.80	13.50	1.175	97.06	1.030	-0.02	0.094	0.114
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+7	Power level 3	1	2412	12.80	13.50	1.175	97.06	1.030	0.04	0.135	0.163
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 4+7	Power level 3	1	2412	12.80	13.50	1.175	97.06	1.030	-0.07	0.129	0.156
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+7	Power level 3	6	2437	12.50	13.50	1.259	97.06	1.030	-0.07	0.142	0.184
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 4+7	Power level 3	11	2462	12.10	13.50	1.380	97.06	1.030	-0.02	0.189	0.269

< WLAN5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	0mm	Ant 8	Power level 1	58	5290	14.62	16.50	1.542	99.06	1.009	0.09	0.205	0.319
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Power level 1	58	5290	14.62	16.50	1.542	99.06	1.009	-0.01	0.251	0.390
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Power level 1	58	5290	14.62	16.50	1.542	99.06	1.009	-0.01	0.228	0.355
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Power level 1	58	5290	14.62	16.50	1.542	99.06	1.009	0.02	0.259	0.403
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9	Power level 1	58	5290	15.07	16.50	1.390	99.06	1.009	0.03	0.313	0.439
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9	Power level 1	58	5290	15.07	16.50	1.390	99.06	1.009	0.07	0.074	0.104
27	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power level 1	58	5290	15.07	16.50	1.390	99.06	1.009	0.05	0.708	**0.993**
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9	Power level 1	58	5290	15.07	16.50	1.390	99.06	1.009	-0.01	0.204	0.286
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Power level 2	50	5250	11.62	13.00	1.374	99.07	1.009	0.07	0.088	0.122
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Power level 2	50	5250	11.62	13.00	1.374	99.07	1.009	0.07	0.103	0.143
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Power level 2	50	5250	11.62	13.00	1.374	99.07	1.009	0.03	0.114	0.158
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Power level 2	50	5250	11.62	13.00	1.374	99.07	1.009	0.11	0.122	0.169
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9	Power level 2	50	5250	11.55	13.00	1.396	99.07	1.009	0.03	0.156	0.220
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9	Power level 2	50	5250	11.55	13.00	1.396	99.07	1.009	0.06	0.063	0.089
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power level 2	50	5250	11.55	13.00	1.396	99.07	1.009	0.01	0.311	0.438
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9	Power level 2	50	5250	11.55	13.00	1.396	99.07	1.009	0.02	0.084	0.118
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8+9	Power level 2	50	5250	14.64	16.00	1.368	99.07	1.009	0.1	0.177	0.244
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8+9	Power level 2	50	5250	14.64	16.00	1.368	99.07	1.009	0.07	0.117	0.161
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8+9	Power level 2	50	5250	14.64	16.00	1.368	99.07	1.009	-0.1	0.305	0.421
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8+9	Power level 2	50	5250	14.64	16.00	1.368	99.07	1.009	0.15	0.212	0.293
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Power level 3	50	5250	9.02	10.50	1.406	99.07	1.009	-0.01	0.046	0.065
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Power level 3	50	5250	9.02	10.50	1.406	99.07	1.009	-0.01	0.063	0.089
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Power level 3	50	5250	9.02	10.50	1.406	99.07	1.009	0.08	0.067	0.095
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Power level 3	50	5250	9.02	10.50	1.406	99.07	1.009	0.12	0.076	0.108
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9	Power level 3	50	5250	9.52	10.50	1.253	99.07	1.009	0.03	0.091	0.115
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9	Power level 3	50	5250	9.52	10.50	1.253	99.07	1.009	0.09	0.042	0.053
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power level 3	50	5250	9.52	10.50	1.253	99.07	1.009	0.1	0.142	0.180
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9	Power level 3	50	5250	9.52	10.50	1.253	99.07	1.009	0.05	0.052	0.066
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8+9	Power level 3	50	5250	12.60	13.50	1.230	99.07	1.009	-0.01	0.108	0.134
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8+9	Power level 3	50	5250	12.60	13.50	1.230	99.07	1.009	-0.09	0.083	0.103
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8+9	Power level 3	50	5250	12.60	13.50	1.230	99.07	1.009	-0.13	0.181	0.225
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8+9	Power level 3	50	5250	12.60	13.50	1.230	99.07	1.009	-0.09	0.120	0.149
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8	Power level 1	106	5530	17.04	18.50	1.400	99.06	1.009	0.07	0.437	0.617
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Power level 1	106	5530	17.04	18.50	1.400	99.06	1.009	0.02	0.589	0.832
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Power level 1	106	5530	17.04	18.50	1.400	99.06	1.009	0.05	0.659	0.931
28	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Power level 1	106	5530	17.04	18.50	1.400	99.06	1.009	0.01	0.754	**1.065**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Power level 1	122	5610	16.92	18.50	1.439	99.06	1.009	0.05	0.593	0.861
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Power level 1	122	5610	16.92	18.50	1.439	99.06	1.009	0.01	0.688	0.999
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Power level 1	122	5610	16.92	18.50	1.439	99.06	1.009	0.08	0.731	1.061
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9	Power level 1	122	5610	17.05	18.50	1.396	99.06	1.009	0.09	0.203	0.286
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9	Power level 1	122	5610	17.05	18.50	1.396	99.06	1.009	0.08	0.088	0.124
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power level 1	122	5610	17.05	18.50	1.396	99.06	1.009	0.03	0.742	1.045
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9	Power level 1	122	5610	17.05	18.50	1.396	99.06	1.009	0.11	0.205	0.289
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power level 1	106	5530	16.81	18.50	1.476	99.06	1.009	0.04	0.544	0.810
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Power level 2	114	5570	12.54	14.00	1.400	99.07	1.009	0.09	0.180	0.254
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Power level 2	114	5570	12.54	14.00	1.400	99.07	1.009	0.06	0.216	0.305
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Power level 2	114	5570	12.54	14.00	1.400	99.07	1.009	0.1	0.245	0.346
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Power level 2	114	5570	12.54	14.00	1.400	99.07	1.009	0.01	0.276	0.390
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9	Power level 2	114	5570	12.60	14.00	1.380	99.07	1.009	0.08	0.087	0.121
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9	Power level 2	114	5570	12.60	14.00	1.380	99.07	1.009	0.03	0.045	0.063
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power level 2	114	5570	12.60	14.00	1.380	99.07	1.009	0.05	0.249	0.347
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9	Power level 2	114	5570	12.60	14.00	1.380	99.07	1.009	0.07	0.089	0.124

	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8+9	Power level 2	114	5570	15.62	17.00	1.374	99.07	1.009	-0.03	0.217	0.301
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8+9	Power level 2	114	5570	15.62	17.00	1.374	99.07	1.009	-0.07	0.263	0.365
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8+9	Power level 2	114	5570	15.62	17.00	1.374	99.07	1.009	-0.07	0.425	0.589
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8+9	Power level 2	114	5570	15.62	17.00	1.374	99.07	1.009	0.1	0.410	0.568
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Power level 3	114	5570	10.58	12.00	1.387	99.07	1.009	0.12	0.112	0.157
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Power level 3	114	5570	10.58	12.00	1.387	99.07	1.009	0.03	0.133	0.186
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Power level 3	114	5570	10.58	12.00	1.387	99.07	1.009	0.03	0.142	0.199
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Power level 3	114	5570	10.58	12.00	1.387	99.07	1.009	0.09	0.157	0.220
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9	Power level 3	114	5570	10.69	12.00	1.352	99.07	1.009	0.07	0.060	0.082
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9	Power level 3	114	5570	10.69	12.00	1.352	99.07	1.009	0.09	0.031	0.042
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power level 3	114	5570	10.69	12.00	1.352	99.07	1.009	0.02	0.152	0.207
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9	Power level 3	114	5570	10.69	12.00	1.352	99.07	1.009	0.12	0.061	0.083
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8+9	Power level 3	114	5570	13.66	15.00	1.361	99.07	1.009	0.02	0.122	0.168
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8+9	Power level 3	114	5570	13.66	15.00	1.361	99.07	1.009	0.11	0.157	0.216
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8+9	Power level 3	114	5570	13.66	15.00	1.361	99.07	1.009	0	0.272	0.374
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8+9	Power level 3	114	5570	13.66	15.00	1.361	99.07	1.009	-0.11	0.266	0.365
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8	Power level 1	155	5775	14.90	16.50	1.445	99.06	1.009	0.05	0.413	0.602
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Power level 1	155	5775	14.90	16.50	1.445	99.06	1.009	0.01	0.549	0.801
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Power level 1	155	5775	14.90	16.50	1.445	99.06	1.009	0.09	0.591	0.862
29	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Power level 1	155	5775	14.90	16.50	1.445	99.06	1.009	0.06	0.610	**0.890**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9	Power level 1	155	5775	15.08	16.50	1.387	99.06	1.009	0.05	0.107	0.150
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9	Power level 1	155	5775	15.08	16.50	1.387	99.06	1.009	0.01	0.081	0.113
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power level 1	155	5775	15.08	16.50	1.387	99.06	1.009	0.01	0.376	0.526
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9	Power level 1	155	5775	15.08	16.50	1.387	99.06	1.009	0.12	0.110	0.154
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8	Power level 2	155	5775	11.92	13.50	1.439	99.06	1.009	0.08	0.176	0.256
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Power level 2	155	5775	11.92	13.50	1.439	99.06	1.009	0.06	0.247	0.359
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Power level 2	155	5775	11.92	13.50	1.439	99.06	1.009	0.12	0.282	0.409
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Power level 2	155	5775	11.92	13.50	1.439	99.06	1.009	0.12	0.305	0.443
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9	Power level 2	155	5775	12.05	13.50	1.396	99.06	1.009	0.12	0.067	0.094
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9	Power level 2	155	5775	12.05	13.50	1.396	99.06	1.009	0.08	0.048	0.068
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power level 2	155	5775	12.05	13.50	1.396	99.06	1.009	0.01	0.168	0.237
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9	Power level 2	155	5775	12.05	13.50	1.396	99.06	1.009	0.05	0.056	0.079
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8+9	Power level 2	155	5775	15.02	16.50	1.406	99.06	1.009	-0.06	0.219	0.311
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8+9	Power level 2	155	5775	15.02	16.50	1.406	99.06	1.009	0.18	0.239	0.339
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8+9	Power level 2	155	5775	15.02	16.50	1.406	99.06	1.009	-0.02	0.405	0.575
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8+9	Power level 2	155	5775	15.02	16.50	1.406	99.06	1.009	0.12	0.360	0.511
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8	Power level 3	155	5775	9.42	11.00	1.439	99.06	1.009	0.02	0.106	0.154
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Power level 3	155	5775	9.42	11.00	1.439	99.06	1.009	0.04	0.127	0.184
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Power level 3	155	5775	9.42	11.00	1.439	99.06	1.009	0.06	0.155	0.225
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Power level 3	155	5775	9.42	11.00	1.439	99.06	1.009	0.04	0.165	0.240
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9	Power level 3	155	5775	9.55	11.00	1.396	99.06	1.009	0.09	0.041	0.058
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9	Power level 3	155	5775	9.55	11.00	1.396	99.06	1.009	-0.06	0.032	0.045
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power level 3	155	5775	9.55	11.00	1.396	99.06	1.009	0.04	0.078	0.110
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9	Power level 3	155	5775	9.55	11.00	1.396	99.06	1.009	0.01	0.031	0.044
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8+9	Power level 3	155	5775	12.54	14.00	1.400	99.06	1.009	-0.12	0.117	0.165
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8+9	Power level 3	155	5775	12.54	14.00	1.400	99.06	1.009	-0.15	0.161	0.227
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8+9	Power level 3	155	5775	12.54	14.00	1.400	99.06	1.009	-0.17	0.232	0.328
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8+9	Power level 3	155	5775	12.54	14.00	1.400	99.06	1.009	-0.18	0.157	0.222

18.2 Hotspot SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	GPRS(4 Tx slots)	Front	10mm	Ant 0	DSI17	189	836.4	25.54	27.00	1.400	0.03	0.236	0.330
	GSM850	GPRS(4 Tx slots)	Back	10mm	Ant 0	DSI17	189	836.4	25.54	27.00	1.400	-0.14	0.201	0.281
30	GSM850	GPRS(4 Tx slots)	Left Side	10mm	Ant 0	DSI17	189	836.4	25.54	27.00	1.400	-0.12	0.521	**0.729**
	GSM850	DTM Multi-slot class 9	Left Side	10mm	Ant 0	DSI17	189	836.4	23.61	23.98	1.089	0.09	0.488	0.531
	GSM850	GPRS(4 Tx slots)	Top Side	10mm	Ant 0	DSI17	189	836.4	25.54	27.00	1.400	-0.18	0.050	0.070
	GSM850	GPRS(4 Tx slots)	Left Side	10mm	Ant 0	DSI17	128	824.2	25.06	27.00	1.563	-0.01	0.385	0.602
	GSM850	GPRS(4 Tx slots)	Left Side	10mm	Ant 0	DSI17	251	848.8	25.38	27.00	1.452	-0.14	0.411	0.597
	GSM850	GPRS(4 Tx slots)	Front	10mm	Ant 1	DSI17	189	836.4	27.07	28.00	1.239	0.07	0.157	0.194
	GSM850	GPRS(4 Tx slots)	Back	10mm	Ant 1	DSI17	189	836.4	27.07	28.00	1.239	-0.1	0.180	0.223
	GSM850	GPRS(4 Tx slots)	Right Side	10mm	Ant 1	DSI17	189	836.4	27.07	28.00	1.239	-0.09	0.145	0.180
	GSM850	GPRS(4 Tx slots)	Bottom Side	10mm	Ant 1	DSI17	189	836.4	27.07	28.00	1.239	0.01	0.140	0.173
	GSM850	GPRS(4 Tx slots)	Back	10mm	Ant 1	DSI17	128	824.2	27.04	28.00	1.247	0.01	0.328	0.409
	GSM850	DTM Multi-slot class 9	Back	10mm	Ant 1	DSI17	128	824.2	24.40	24.98	1.143	0.09	0.301	0.344
	GSM850	GPRS(4 Tx slots)	Back	10mm	Ant 1	DSI17	251	848.8	26.95	28.00	1.274	0.15	0.205	0.261
	GSM1900	GPRS(4 Tx slots)	Front	10mm	Ant 2	DSI17	661	1880	23.66	24.00	1.081	-0.15	0.234	0.253
	GSM1900	GPRS(4 Tx slots)	Back	10mm	Ant 2	DSI17	661	1880	23.66	24.00	1.081	-0.03	0.212	0.229
	GSM1900	GPRS(4 Tx slots)	Left Side	10mm	Ant 2	DSI17	661	1880	23.66	24.00	1.081	0.03	0.340	0.368
	GSM1900	GPRS(4 Tx slots)	Top Side	10mm	Ant 2	DSI17	661	1880	23.66	24.00	1.081	-0.07	0.082	0.089
	GSM1900	GPRS(4 Tx slots)	Left Side	10mm	Ant 2	DSI17	512	1850.2	23.64	24.00	1.086	0.11	0.332	0.361
	GSM1900	GPRS(4 Tx slots)	Left Side	10mm	Ant 2	DSI17	810	1909.8	23.61	24.00	1.094	0.03	0.342	0.374
	GSM1900	DTM Multi-slot class 9	Left Side	10mm	Ant 2	DSI17	810	1909.8	20.47	20.98	1.125	-0.02	0.302	0.340
	GSM1900	GPRS(4 Tx slots)	Front	10mm	Ant 3	DSI17	661	1880	22.65	24.00	1.365	0.14	0.260	0.355
	GSM1900	GPRS(4 Tx slots)	Back	10mm	Ant 3	DSI17	661	1880	22.65	24.00	1.365	-0.04	0.420	0.573
	GSM1900	GPRS(4 Tx slots)	Left Side	10mm	Ant 3	DSI17	661	1880	22.65	24.00	1.365	-0.09	0.183	0.250
	GSM1900	GPRS(4 Tx slots)	Right Side	10mm	Ant 3	DSI17	661	1880	22.65	24.00	1.365	-0.18	0.119	0.162
31	GSM1900	GPRS(4 Tx slots)	Bottom Side	10mm	Ant 3	DSI17	661	1880	22.65	24.00	1.365	-0.16	0.517	**0.705**
	GSM1900	DTM Multi-slot class 9	Bottom Side	10mm	Ant 3	DSI17	661	1880	19.60	20.98	1.374	-0.01	0.487	0.669
	GSM1900	GPRS(4 Tx slots)	Bottom Side	10mm	Ant 3	DSI17	512	1850.2	22.62	24.00	1.374	-0.05	0.369	0.507
	GSM1900	GPRS(4 Tx slots)	Bottom Side	10mm	Ant 3	DSI17	810	1909.8	22.61	24.00	1.377	0.01	0.507	0.698

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	RMC 12.2Kbps	Front	10mm	Ant 0	DSI17	4182	836.4	22.28	23.00	1.180	-0.16	0.310	0.366
	WCDMA V	RMC 12.2Kbps	Back	10mm	Ant 0	DSI17	4182	836.4	22.28	23.00	1.180	0.03	0.257	0.303
32	WCDMA V	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI17	4182	836.4	22.28	23.00	1.180	-0.04	0.666	**0.786**
	WCDMA V	RMC 12.2Kbps	Top Side	10mm	Ant 0	DSI17	4182	836.4	22.28	23.00	1.180	-0.17	0.040	0.047
	WCDMA V	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI17	4132	826.4	22.14	23.00	1.219	0.15	0.388	0.473
	WCDMA V	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI17	4233	846.6	22.13	23.00	1.222	0.08	0.401	0.490
	WCDMA V	RMC 12.2Kbps	Front	10mm	Ant 1	DSI17	4182	836.4	24.11	25.00	1.227	-0.12	0.229	0.281
	WCDMA V	RMC 12.2Kbps	Back	10mm	Ant 1	DSI17	4182	836.4	24.11	25.00	1.227	0.06	0.259	0.318
	WCDMA V	RMC 12.2Kbps	Right Side	10mm	Ant 1	DSI17	4182	836.4	24.11	25.00	1.227	-0.18	0.239	0.293
	WCDMA V	RMC 12.2Kbps	Bottom Side	10mm	Ant 1	DSI17	4182	836.4	24.11	25.00	1.227	0.1	0.229	0.281
	WCDMA V	RMC 12.2Kbps	Back	10mm	Ant 1	DSI17	4132	826.4	24.03	25.00	1.250	0.16	0.254	0.318
	WCDMA V	RMC 12.2Kbps	Back	10mm	Ant 1	DSI17	4233	846.6	24.01	25.00	1.256	-0.11	0.356	0.447
	WCDMA IV	RMC 12.2Kbps	Front	10mm	Ant 2	DSI17	1413	1732.6	21.09	21.50	1.099	-0.11	0.296	0.325
	WCDMA IV	RMC 12.2Kbps	Back	10mm	Ant 2	DSI17	1413	1732.6	21.09	21.50	1.099	0.06	0.272	0.299
	WCDMA IV	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI17	1413	1732.6	21.09	21.50	1.099	-0.07	0.430	0.473
	WCDMA IV	RMC 12.2Kbps	Top Side	10mm	Ant 2	DSI17	1413	1732.6	21.09	21.50	1.099	0.18	0.169	0.186
	WCDMA IV	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI17	1312	1712.4	21.00	21.50	1.122	-0.04	0.540	0.606
	WCDMA IV	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI17	1513	1752.6	21.07	21.50	1.104	-0.17	0.363	0.401
	WCDMA IV	RMC 12.2Kbps	Front	10mm	Ant 3	DSI17	1413	1732.6	20.17	21.00	1.211	0.03	0.330	0.399
	WCDMA IV	RMC 12.2Kbps	Back	10mm	Ant 3	DSI17	1413	1732.6	20.17	21.00	1.211	0.11	0.398	0.482
	WCDMA IV	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI17	1413	1732.6	20.17	21.00	1.211	-0.03	0.167	0.202
	WCDMA IV	RMC 12.2Kbps	Right Side	10mm	Ant 3	DSI17	1413	1732.6	20.17	21.00	1.211	-0.06	0.096	0.116
33	WCDMA IV	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI17	1413	1732.6	20.17	21.00	1.211	0.01	0.587	**0.711**
	WCDMA IV	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI17	1312	1712.4	20.14	21.00	1.219	0.1	0.445	0.542
	WCDMA IV	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI17	1513	1752.6	20.05	21.00	1.245	0.16	0.471	0.586
	WCDMA II	RMC 12.2Kbps	Front	10mm	Ant 2	DSI17	9400	1880	21.03	21.50	1.114	0.07	0.294	0.328
	WCDMA II	RMC 12.2Kbps	Back	10mm	Ant 2	DSI17	9400	1880	21.03	21.50	1.114	-0.17	0.311	0.347
34	WCDMA II	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI17	9400	1880	21.03	21.50	1.114	0.06	0.678	**0.755**
	WCDMA II	RMC 12.2Kbps	Top Side	10mm	Ant 2	DSI17	9400	1880	21.03	21.50	1.114	0.09	0.116	0.129
	WCDMA II	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI17	9262	1852.4	20.94	21.50	1.138	-0.12	0.559	0.636
	WCDMA II	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI17	9538	1907.6	20.85	21.50	1.161	-0.14	0.579	0.672
	WCDMA II	RMC 12.2Kbps	Front	10mm	Ant 3	DSI17	9400	1880	19.68	20.50	1.208	-0.03	0.280	0.338
	WCDMA II	RMC 12.2Kbps	Back	10mm	Ant 3	DSI17	9400	1880	19.68	20.50	1.208	-0.14	0.351	0.424
	WCDMA II	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI17	9400	1880	19.68	20.50	1.208	-0.13	0.174	0.210
	WCDMA II	RMC 12.2Kbps	Right Side	10mm	Ant 3	DSI17	9400	1880	19.68	20.50	1.208	0.16	0.088	0.106
	WCDMA II	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI17	9400	1880	19.68	20.50	1.208	0.04	0.473	0.571
	WCDMA II	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI17	9262	1852.4	19.64	20.50	1.219	0.09	0.474	0.578
	WCDMA II	RMC 12.2Kbps	Bottom Side	10mm	Ant 3	DSI17	9538	1907.6	19.65	20.50	1.216	-0.14	0.491	0.597

<LTE FDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 71	20M	QPSK	1	0	Front	10mm	Ant 0	DSI17	133297	680.5	23.95	25.00	1.274	-0.06	0.279	0.355
	LTE Band 71	20M	QPSK	1	0	Back	10mm	Ant 0	DSI17	133297	680.5	23.95	25.00	1.274	0.06	0.262	0.334
35	LTE Band 71	20M	QPSK	1	0	Left Side	10mm	Ant 0	DSI17	133297	680.5	23.95	25.00	1.274	0.13	0.594	**0.756**
	LTE Band 71	20M	QPSK	1	0	Top Side	10mm	Ant 0	DSI17	133297	680.5	23.95	25.00	1.274	0.07	0.090	0.115
	LTE Band 71	20M	QPSK	50	0	Front	10mm	Ant 0	DSI17	133297	680.5	22.98	24.00	1.265	0.08	0.250	0.316
	LTE Band 71	20M	QPSK	50	0	Back	10mm	Ant 0	DSI17	133297	680.5	22.98	24.00	1.265	-0.11	0.242	0.306
	LTE Band 71	20M	QPSK	50	0	Left Side	10mm	Ant 0	DSI17	133297	680.5	22.98	24.00	1.265	0.01	0.512	0.648
	LTE Band 71	20M	QPSK	50	0	Top Side	10mm	Ant 0	DSI17	133297	680.5	22.98	24.00	1.265	-0.01	0.070	0.089
	LTE Band 71	20M	QPSK	1	0	Front	10mm	Ant 1	DSI17	133297	680.5	24.08	25.00	1.236	-0.04	0.142	0.176
	LTE Band 71	20M	QPSK	1	0	Back	10mm	Ant 1	DSI17	133297	680.5	24.08	25.00	1.236	0.02	0.168	0.208
	LTE Band 71	20M	QPSK	1	0	Right Side	10mm	Ant 1	DSI17	133297	680.5	24.08	25.00	1.236	0.08	0.292	0.361
	LTE Band 71	20M	QPSK	1	0	Bottom Side	10mm	Ant 1	DSI17	133297	680.5	24.08	25.00	1.236	0.06	0.147	0.182
	LTE Band 71	20M	QPSK	50	0	Front	10mm	Ant 1	DSI17	133297	680.5	23.04	24.00	1.247	0.02	0.124	0.155
	LTE Band 71	20M	QPSK	50	0	Back	10mm	Ant 1	DSI17	133297	680.5	23.04	24.00	1.247	-0.05	0.154	0.192
	LTE Band 71	20M	QPSK	50	0	Right Side	10mm	Ant 1	DSI17	133297	680.5	23.04	24.00	1.247	-0.17	0.239	0.298
	LTE Band 71	20M	QPSK	50	0	Bottom Side	10mm	Ant 1	DSI17	133297	680.5	23.04	24.00	1.247	-0.11	0.137	0.171
	LTE Band 12	10M	QPSK	1	0	Front	10mm	Ant 0	DSI17	23095	707.5	21.91	23.00	1.285	-0.1	0.233	0.299
	LTE Band 12	10M	QPSK	1	0	Back	10mm	Ant 0	DSI17	23095	707.5	21.91	23.00	1.285	0.18	0.200	0.257
36	LTE Band 12	10M	QPSK	1	0	Left Side	10mm	Ant 0	DSI17	23095	707.5	21.91	23.00	1.285	-0.16	0.497	**0.639**
	LTE Band 12	10M	QPSK	1	0	Top Side	10mm	Ant 0	DSI17	23095	707.5	21.91	23.00	1.285	0.11	0.034	0.044
	LTE Band 12	10M	QPSK	25	0	Front	10mm	Ant 0	DSI17	23095	707.5	21.83	23.00	1.309	0.13	0.257	0.336
	LTE Band 12	10M	QPSK	25	0	Back	10mm	Ant 0	DSI17	23095	707.5	21.83	23.00	1.309	0.08	0.205	0.268
	LTE Band 12	10M	QPSK	25	0	Left Side	10mm	Ant 0	DSI17	23095	707.5	21.83	23.00	1.309	-0.1	0.472	0.618
	LTE Band 12	10M	QPSK	25	0	Top Side	10mm	Ant 0	DSI17	23095	707.5	21.83	23.00	1.309	-0.13	0.031	0.041
	LTE Band 12	10M	QPSK	1	0	Front	10mm	Ant 1	DSI17	23095	707.5	23.81	25.00	1.315	0.03	0.223	0.293
	LTE Band 12	10M	QPSK	1	0	Back	10mm	Ant 1	DSI17	23095	707.5	23.81	25.00	1.315	0.16	0.271	0.356
	LTE Band 12	10M	QPSK	1	0	Right Side	10mm	Ant 1	DSI17	23095	707.5	23.81	25.00	1.315	-0.03	0.357	0.470
	LTE Band 12	10M	QPSK	1	0	Bottom Side	10mm	Ant 1	DSI17	23095	707.5	23.81	25.00	1.315	0.17	0.247	0.325
	LTE Band 12	10M	QPSK	25	0	Front	10mm	Ant 1	DSI17	23095	707.5	22.78	24.00	1.324	0.01	0.168	0.222
	LTE Band 12	10M	QPSK	25	0	Back	10mm	Ant 1	DSI17	23095	707.5	22.78	24.00	1.324	0.05	0.211	0.279
	LTE Band 12	10M	QPSK	25	0	Right Side	10mm	Ant 1	DSI17	23095	707.5	22.78	24.00	1.324	-0.02	0.263	0.348
	LTE Band 12	10M	QPSK	25	0	Bottom Side	10mm	Ant 1	DSI17	23095	707.5	22.78	24.00	1.324	0.12	0.182	0.241
	LTE Band 13	10M	QPSK	1	0	Front	10mm	Ant 0	DSI17	23230	782	22.03	23.00	1.250	-0.09	0.293	0.366
	LTE Band 13	10M	QPSK	1	0	Back	10mm	Ant 0	DSI17	23230	782	22.03	23.00	1.250	0.06	0.229	0.286
37	LTE Band 13	10M	QPSK	1	0	Left Side	10mm	Ant 0	DSI17	23230	782	22.03	23.00	1.250	0.11	0.630	**0.788**
	LTE Band 13	10M	QPSK	1	0	Top Side	10mm	Ant 0	DSI17	23230	782	22.03	23.00	1.250	-0.03	0.043	0.054
	LTE Band 13	10M	QPSK	25	0	Front	10mm	Ant 0	DSI17	23230	782	22.02	23.00	1.253	-0.16	0.300	0.376
	LTE Band 13	10M	QPSK	25	0	Back	10mm	Ant 0	DSI17	23230	782	22.02	23.00	1.253	0.05	0.248	0.311
	LTE Band 13	10M	QPSK	25	0	Left Side	10mm	Ant 0	DSI17	23230	782	22.02	23.00	1.253	-0.07	0.621	0.778
	LTE Band 13	10M	QPSK	25	0	Top Side	10mm	Ant 0	DSI17	23230	782	22.02	23.00	1.253	0.03	0.040	0.050
	LTE Band 13	10M	QPSK	1	0	Front	10mm	Ant 1	DSI17	23230	782	23.94	25.00	1.276	0.13	0.254	0.324
	LTE Band 13	10M	QPSK	1	0	Back	10mm	Ant 1	DSI17	23230	782	23.94	25.00	1.276	-0.08	0.306	0.391
	LTE Band 13	10M	QPSK	1	0	Right Side	10mm	Ant 1	DSI17	23230	782	23.94	25.00	1.276	0.12	0.359	0.458
	LTE Band 13	10M	QPSK	1	0	Bottom Side	10mm	Ant 1	DSI17	23230	782	23.94	25.00	1.276	0	0.270	0.345
	LTE Band 13	10M	QPSK	25	0	Front	10mm	Ant 1	DSI17	23230	782	22.82	24.00	1.312	0.05	0.210	0.276
	LTE Band 13	10M	QPSK	25	0	Back	10mm	Ant 1	DSI17	23230	782	22.82	24.00	1.312	-0.06	0.251	0.329
	LTE Band 13	10M	QPSK	25	0	Right Side	10mm	Ant 1	DSI17	23230	782	22.82	24.00	1.312	-0.18	0.262	0.344
	LTE Band 13	10M	QPSK	25	0	Bottom Side	10mm	Ant 1	DSI17	23230	782	22.82	24.00	1.312	-0.04	0.218	0.286
	LTE Band 26	15M	QPSK	1	0	Front	10mm	Ant 0	DSI17	26865	831.5	22.04	23.50	1.400	0.08	0.175	0.245
	LTE Band 26	15M	QPSK	1	0	Back	10mm	Ant 0	DSI17	26865	831.5	22.04	23.50	1.400	-0.11	0.142	0.199
38	LTE Band 26	15M	QPSK	1	0	Left Side	10mm	Ant 0	DSI17	26865	831.5	22.04	23.50	1.400	-0.06	0.458	**0.641**
	LTE Band 26	15M	QPSK	1	0	Top Side	10mm	Ant 0	DSI17	26865	831.5	22.04	23.50	1.400	-0.15	0.034	0.048

	LTE Band 26	15M	QPSK	1	0	Left Side	10mm	Ant 0	DSI17	26765	821.5	21.83	23.50	1.469	0.08	0.182	0.267
	LTE Band 26	15M	QPSK	1	0	Left Side	10mm	Ant 0	DSI17	26965	841.5	22.02	23.50	1.406	-0.08	0.411	0.578
	LTE Band 26	15M	QPSK	36	0	Front	10mm	Ant 0	DSI17	26865	831.5	22.02	23.50	1.406	-0.02	0.197	0.277
	LTE Band 26	15M	QPSK	36	0	Back	10mm	Ant 0	DSI17	26865	831.5	22.02	23.50	1.406	0.1	0.169	0.238
	LTE Band 26	15M	QPSK	36	0	Left Side	10mm	Ant 0	DSI17	26865	831.5	22.02	23.50	1.406	0.02	0.441	0.620
	LTE Band 26	15M	QPSK	36	0	Top Side	10mm	Ant 0	DSI17	26865	831.5	22.02	23.50	1.406	-0.1	0.031	0.044
	LTE Band 26	15M	QPSK	1	0	Front	10mm	Ant 1	DSI17	26865	831.5	23.86	25.00	1.300	0.08	0.209	0.272
	LTE Band 26	15M	QPSK	1	0	Back	10mm	Ant 1	DSI17	26865	831.5	23.86	25.00	1.300	0.08	0.240	0.312
	LTE Band 26	15M	QPSK	1	0	Right Side	10mm	Ant 1	DSI17	26865	831.5	23.86	25.00	1.300	0.12	0.235	0.306
	LTE Band 26	15M	QPSK	1	0	Bottom Side	10mm	Ant 1	DSI17	26865	831.5	23.86	25.00	1.300	-0.07	0.224	0.291
	LTE Band 26	15M	QPSK	1	0	Back	10mm	Ant 1	DSI17	26765	821.5	23.67	25.00	1.358	-0.15	0.387	0.526
	LTE Band 26	15M	QPSK	1	0	Back	10mm	Ant 1	DSI17	26965	841.5	23.80	25.00	1.318	0.04	0.235	0.310
	LTE Band 26	15M	QPSK	36	0	Front	10mm	Ant 1	DSI17	26865	831.5	22.84	24.00	1.306	0.08	0.160	0.209
	LTE Band 26	15M	QPSK	36	0	Back	10mm	Ant 1	DSI17	26865	831.5	22.84	24.00	1.306	0.06	0.180	0.235
	LTE Band 26	15M	QPSK	36	0	Right Side	10mm	Ant 1	DSI17	26865	831.5	22.84	24.00	1.306	0.12	0.187	0.244
	LTE Band 26	15M	QPSK	36	0	Bottom Side	10mm	Ant 1	DSI17	26865	831.5	22.84	24.00	1.306	-0.15	0.177	0.231
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant 2	DSI17	132322	1745	21.49	22.50	1.262	0.14	0.234	0.295
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant 2	DSI17	132322	1745	21.49	22.50	1.262	0.11	0.254	0.321
39	LTE Band 66	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	132322	1745	21.49	22.50	1.262	-0.18	0.551	**0.695**
	LTE Band 66	20M	QPSK	1	0	Top Side	10mm	Ant 2	DSI17	132322	1745	21.49	22.50	1.262	0.1	0.126	0.159
	LTE Band 66	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	132072	1720	21.29	22.50	1.321	-0.01	0.397	0.525
	LTE Band 66	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	132572	1770	21.38	22.50	1.294	-0.01	0.510	0.660
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant 2	DSI17	132322	1745	21.41	22.50	1.285	0.03	0.258	0.332
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant 2	DSI17	132322	1745	21.41	22.50	1.285	0.1	0.258	0.332
	LTE Band 66	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	132322	1745	21.41	22.50	1.285	-0.18	0.510	0.655
	LTE Band 66	20M	QPSK	50	0	Top Side	10mm	Ant 2	DSI17	132322	1745	21.41	22.50	1.285	0.07	0.131	0.168
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant 3	DSI17	132322	1745	18.86	20.00	1.300	0.04	0.100	0.130
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant 3	DSI17	132322	1745	18.86	20.00	1.300	-0.03	0.130	0.169
	LTE Band 66	20M	QPSK	1	0	Left Side	10mm	Ant 3	DSI17	132322	1745	18.86	20.00	1.300	-0.08	0.128	0.166
	LTE Band 66	20M	QPSK	1	0	Right Side	10mm	Ant 3	DSI17	132322	1745	18.86	20.00	1.300	-0.01	0.060	0.078
	LTE Band 66	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	132322	1745	18.86	20.00	1.300	0.09	0.339	0.441
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant 3	DSI17	132322	1745	18.85	20.00	1.303	0.12	0.108	0.141
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant 3	DSI17	132322	1745	18.85	20.00	1.303	-0.14	0.138	0.180
	LTE Band 66	20M	QPSK	50	0	Left Side	10mm	Ant 3	DSI17	132322	1745	18.85	20.00	1.303	-0.08	0.138	0.180
	LTE Band 66	20M	QPSK	50	0	Right Side	10mm	Ant 3	DSI17	132322	1745	18.85	20.00	1.303	-0.05	0.064	0.083
	LTE Band 66	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	132322	1745	18.85	20.00	1.303	-0.07	0.369	0.481
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant 5	DSI17	132322	1745	24.29	25.00	1.178	-0.02	0.012	0.014
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant 5	DSI17	132322	1745	24.29	25.00	1.178	-0.13	0.052	0.061
	LTE Band 66	20M	QPSK	1	0	Left Side	10mm	Ant 5	DSI17	132322	1745	24.29	25.00	1.178	-	Na	Na
	LTE Band 66	20M	QPSK	1	0	Right Side	10mm	Ant 5	DSI17	132322	1745	24.29	25.00	1.178	0.03	0.021	0.025
	LTE Band 66	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	132322	1745	24.29	25.00	1.178	-0.12	0.076	0.089
	LTE Band 66	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	132072	1720	24.27	25.00	1.183	-0.02	0.067	0.079
	LTE Band 66	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	132572	1770	24.25	25.00	1.189	0.17	0.071	0.084
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant 5	DSI17	132322	1745	23.27	24.00	1.183	-0.01	0.009	0.011
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant 5	DSI17	132322	1745	23.27	24.00	1.183	-0.17	0.041	0.049
	LTE Band 66	20M	QPSK	50	0	Left Side	10mm	Ant 5	DSI17	132322	1745	23.27	24.00	1.183	-	Na	Na
	LTE Band 66	20M	QPSK	50	0	Right Side	10mm	Ant 5	DSI17	132322	1745	23.27	24.00	1.183	0.02	0.017	0.020
	LTE Band 66	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	132322	1745	23.27	24.00	1.183	0.18	0.060	0.071
	LTE Band 66	20M	QPSK	1	0	Front	10mm	Ant 6	DSI17	132322	1745	22.41	23.00	1.146	0.07	0.011	0.013
	LTE Band 66	20M	QPSK	1	0	Back	10mm	Ant 6	DSI17	132322	1745	22.41	23.00	1.146	0.05	0.016	0.018
	LTE Band 66	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	132322	1745	22.41	23.00	1.146	-0.04	0.045	0.052
	LTE Band 66	20M	QPSK	1	0	Top Side	10mm	Ant 6	DSI17	132322	1745	22.41	23.00	1.146	0.01	0.005	0.006
	LTE Band 66	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	132072	1720	22.38	23.00	1.153	-0.15	0.045	0.052
	LTE Band 66	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	132572	1770	22.37	23.00	1.156	-0.05	0.042	0.049
	LTE Band 66	20M	QPSK	50	0	Front	10mm	Ant 6	DSI17	132322	1745	22.39	23.00	1.151	-0.06	0.009	0.010
	LTE Band 66	20M	QPSK	50	0	Back	10mm	Ant 6	DSI17	132322	1745	22.39	23.00	1.151	0.15	0.014	0.016

	LTE Band 66	20M	QPSK	50	0	Right Side	10mm	Ant 6	DSI17	132322	1745	22.39	23.00	1.151	-0.06	0.039	0.045
	LTE Band 66	20M	QPSK	50	0	Top Side	10mm	Ant 6	DSI17	132322	1745	22.39	23.00	1.151	-0.16	0.004	0.005
	LTE Band 25	20M	QPSK	1	0	Front	10mm	Ant 2	DSI17	26340	1880	19.75	20.50	1.189	0.18	0.231	0.275
	LTE Band 25	20M	QPSK	1	0	Back	10mm	Ant 2	DSI17	26340	1880	19.75	20.50	1.189	0.06	0.222	0.264
40	LTE Band 25	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	26340	1880	19.75	20.50	1.189	-0.01	0.599	**0.712**
	LTE Band 25	20M	QPSK	1	0	Top Side	10mm	Ant 2	DSI17	26340	1880	19.75	20.50	1.189	0.06	0.081	0.096
	LTE Band 25	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	26140	1860	19.64	20.50	1.219	-0.01	0.375	0.457
	LTE Band 25	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	26590	1905	19.71	20.50	1.199	-0.09	0.081	0.097
	LTE Band 25	20M	QPSK	50	0	Front	10mm	Ant 2	DSI17	26340	1880	19.68	20.50	1.208	0.03	0.220	0.266
	LTE Band 25	20M	QPSK	50	0	Back	10mm	Ant 2	DSI17	26340	1880	19.68	20.50	1.208	-0.14	0.217	0.262
	LTE Band 25	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	26340	1880	19.68	20.50	1.208	0.1	0.387	0.467
	LTE Band 25	20M	QPSK	50	0	Top Side	10mm	Ant 2	DSI17	26340	1880	19.68	20.50	1.208	-0.09	0.085	0.103
	LTE Band 25	20M	QPSK	1	0	Front	10mm	Ant 3	DSI17	26340	1880	19.83	21.00	1.309	0.16	0.303	0.397
	LTE Band 25	20M	QPSK	1	0	Back	10mm	Ant 3	DSI17	26340	1880	19.83	21.00	1.309	-0.11	0.360	0.471
	LTE Band 25	20M	QPSK	1	0	Left Side	10mm	Ant 3	DSI17	26340	1880	19.83	21.00	1.309	0.14	0.181	0.237
	LTE Band 25	20M	QPSK	1	0	Right Side	10mm	Ant 3	DSI17	26340	1880	19.83	21.00	1.309	-0.06	0.071	0.093
	LTE Band 25	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	26340	1880	19.83	21.00	1.309	-0.03	0.494	0.647
	LTE Band 25	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	26140	1860	19.81	21.00	1.315	0.02	0.493	0.648
	LTE Band 25	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	26590	1905	19.77	21.00	1.327	-0.09	0.459	0.609
	LTE Band 25	20M	QPSK	50	0	Front	10mm	Ant 3	DSI17	26340	1880	19.73	21.00	1.340	-0.13	0.285	0.382
	LTE Band 25	20M	QPSK	50	0	Back	10mm	Ant 3	DSI17	26340	1880	19.73	21.00	1.340	-0.08	0.359	0.481
	LTE Band 25	20M	QPSK	50	0	Left Side	10mm	Ant 3	DSI17	26340	1880	19.73	21.00	1.340	-0.11	0.167	0.224
	LTE Band 25	20M	QPSK	50	0	Right Side	10mm	Ant 3	DSI17	26340	1880	19.73	21.00	1.340	0	0.078	0.104
	LTE Band 25	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	26340	1880	19.73	21.00	1.340	-0.04	0.504	0.675
	LTE Band 30	10M	QPSK	1	0	Front	10mm	Ant 2	DSI17	27710	2310	19.25	20.00	1.189	0.01	0.260	0.309
	LTE Band 30	10M	QPSK	1	0	Back	10mm	Ant 2	DSI17	27710	2310	19.25	20.00	1.189	0.01	0.238	0.283
41	LTE Band 30	10M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	27710	2310	19.25	20.00	1.189	-0.15	0.608	**0.723**
	LTE Band 30	10M	QPSK	1	0	Top Side	10mm	Ant 2	DSI17	27710	2310	19.25	20.00	1.189	-0.01	0.043	0.051
	LTE Band 30	10M	QPSK	25	0	Front	10mm	Ant 2	DSI17	27710	2310	19.17	20.00	1.211	0.09	0.255	0.309
	LTE Band 30	10M	QPSK	25	0	Back	10mm	Ant 2	DSI17	27710	2310	19.17	20.00	1.211	-0.18	0.268	0.324
	LTE Band 30	10M	QPSK	25	0	Left Side	10mm	Ant 2	DSI17	27710	2310	19.17	20.00	1.211	0.03	0.497	0.602
	LTE Band 30	10M	QPSK	25	0	Top Side	10mm	Ant 2	DSI17	27710	2310	19.17	20.00	1.211	0.09	0.042	0.051
	LTE Band 30	10M	QPSK	1	0	Front	10mm	Ant 3	DSI17	27710	2310	21.18	22.00	1.208	-0.01	0.358	0.432
	LTE Band 30	10M	QPSK	1	0	Back	10mm	Ant 3	DSI17	27710	2310	21.18	22.00	1.208	-0.15	0.471	0.569
	LTE Band 30	10M	QPSK	1	0	Left Side	10mm	Ant 3	DSI17	27710	2310	21.18	22.00	1.208	0.02	0.218	0.263
	LTE Band 30	10M	QPSK	1	0	Right Side	10mm	Ant 3	DSI17	27710	2310	21.18	22.00	1.208	0.02	0.080	0.097
	LTE Band 30	10M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	27710	2310	21.18	22.00	1.208	0.1	0.533	0.644
	LTE Band 30	10M	QPSK	25	0	Front	10mm	Ant 3	DSI17	27710	2310	21.17	22.00	1.211	-0.03	0.348	0.421
	LTE Band 30	10M	QPSK	25	0	Back	10mm	Ant 3	DSI17	27710	2310	21.17	22.00	1.211	-0.16	0.467	0.565
	LTE Band 30	10M	QPSK	25	0	Left Side	10mm	Ant 3	DSI17	27710	2310	21.17	22.00	1.211	0.18	0.195	0.236
	LTE Band 30	10M	QPSK	25	0	Right Side	10mm	Ant 3	DSI17	27710	2310	21.17	22.00	1.211	0.06	0.087	0.105
	LTE Band 30	10M	QPSK	25	0	Bottom Side	10mm	Ant 3	DSI17	27710	2310	21.17	22.00	1.211	0.17	0.516	0.625
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant 2	DSI17	21100	2535	18.50	19.50	1.259	-0.13	0.240	0.302
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant 2	DSI17	21100	2535	18.50	19.50	1.259	0.07	0.242	0.305
42	LTE Band 7	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	21100	2535	18.50	19.50	1.259	-0.17	0.584	**0.735**
	LTE Band 7C	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	21350 21152	2560 2540.2	18.46	19.50	1.271	0.09	0.503	0.639
	LTE Band 7	20M	QPSK	1	0	Top Side	10mm	Ant 2	DSI17	21100	2535	18.50	19.50	1.259	0.09	0.066	0.083
	LTE Band 7	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	20850	2510	18.46	19.50	1.271	0.13	0.431	0.548
	LTE Band 7	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	21350	2560	18.41	19.50	1.285	-0.01	0.550	0.707
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant 2	DSI17	21100	2535	18.47	19.50	1.268	0.14	0.246	0.312
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant 2	DSI17	21100	2535	18.47	19.50	1.268	0.03	0.238	0.302
	LTE Band 7	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	21100	2535	18.47	19.50	1.268	0.12	0.501	0.635
	LTE Band 7	20M	QPSK	50	0	Top Side	10mm	Ant 2	DSI17	21100	2535	18.47	19.50	1.268	0.11	0.070	0.089
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant 3	DSI17	21100	2535	20.51	21.50	1.256	-0.17	0.269	0.338
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant 3	DSI17	21100	2535	20.51	21.50	1.256	0.07	0.329	0.413
	LTE Band 7	20M	QPSK	1	0	Left Side	10mm	Ant 3	DSI17	21100	2535	20.51	21.50	1.256	-0.11	0.136	0.171

	LTE Band 7	20M	QPSK	1	0	Right Side	10mm	Ant 3	DSI17	21100	2535	20.51	21.50	1.256	-0.12	0.084	0.106
	LTE Band 7	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	21100	2535	20.51	21.50	1.256	-0.13	0.542	0.681
	LTE Band 7	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	20850	2510	20.49	21.50	1.262	0.16	0.524	0.661
	LTE Band 7	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	21350	2560	20.48	21.50	1.265	0.17	0.561	0.710
	LTE Band 7C	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	21350 21152	2560 2540.2	20.45	21.50	1.274	0.06	0.491	0.625
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant 3	DSI17	21100	2535	20.48	21.50	1.265	-0.17	0.287	0.363
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant 3	DSI17	21100	2535	20.48	21.50	1.265	0.17	0.376	0.476
	LTE Band 7	20M	QPSK	50	0	Left Side	10mm	Ant 3	DSI17	21100	2535	20.48	21.50	1.265	-0.01	0.126	0.159
	LTE Band 7	20M	QPSK	50	0	Right Side	10mm	Ant 3	DSI17	21100	2535	20.48	21.50	1.265	0.11	0.085	0.108
	LTE Band 7	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	21100	2535	20.48	21.50	1.265	0.05	0.537	0.679
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant 5	DSI17	21100	2535	20.07	21.20	1.297	0.07	0.227	0.294
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant 5	DSI17	21100	2535	20.07	21.20	1.297	0.08	0.282	0.366
	LTE Band 7	20M	QPSK	1	0	Left Side	10mm	Ant 5	DSI17	21100	2535	20.07	21.20	1.297	0.08	0.115	0.149
	LTE Band 7	20M	QPSK	1	0	Right Side	10mm	Ant 5	DSI17	21100	2535	20.07	21.20	1.297	-0.05	0.034	0.044
	LTE Band 7	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	21100	2535	20.07	21.20	1.297	-0.03	0.516	0.669
	LTE Band 7	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	20850	2510	19.97	21.20	1.327	-0.03	0.501	0.665
	LTE Band 7	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	21350	2560	20.05	21.20	1.303	0.17	0.501	0.653
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant 5	DSI17	21100	2535	20.01	21.20	1.315	-0.05	0.216	0.284
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant 5	DSI17	21100	2535	20.01	21.20	1.315	-0.1	0.270	0.355
	LTE Band 7	20M	QPSK	50	0	Left Side	10mm	Ant 5	DSI17	21100	2535	20.01	21.20	1.315	0.04	0.107	0.141
	LTE Band 7	20M	QPSK	50	0	Right Side	10mm	Ant 5	DSI17	21100	2535	20.01	21.20	1.315	-0.15	0.031	0.041
	LTE Band 7	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	21100	2535	20.01	21.20	1.315	0.16	0.510	0.671
	LTE Band 7	20M	QPSK	1	0	Front	10mm	Ant 6	DSI17	21100	2535	19.13	20.20	1.279	-0.12	0.215	0.275
	LTE Band 7	20M	QPSK	1	0	Back	10mm	Ant 6	DSI17	21100	2535	19.13	20.20	1.279	0.05	0.329	0.421
	LTE Band 7	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	21100	2535	19.13	20.20	1.279	0.07	0.510	0.652
	LTE Band 7	20M	QPSK	1	0	Top Side	10mm	Ant 6	DSI17	21100	2535	19.13	20.20	1.279	-0.03	0.139	0.178
	LTE Band 7	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	20850	2510	19.01	20.20	1.315	0.17	0.453	0.596
	LTE Band 7	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	21350	2560	19.06	20.20	1.300	0.1	0.475	0.618
	LTE Band 7	20M	QPSK	50	0	Front	10mm	Ant 6	DSI17	21100	2535	19.03	20.20	1.309	0.14	0.241	0.316
	LTE Band 7	20M	QPSK	50	0	Back	10mm	Ant 6	DSI17	21100	2535	19.03	20.20	1.309	-0.07	0.346	0.453
	LTE Band 7	20M	QPSK	50	0	Right Side	10mm	Ant 6	DSI17	21100	2535	19.03	20.20	1.309	-0.18	0.491	0.643
	LTE Band 7	20M	QPSK	50	0	Top Side	10mm	Ant 6	DSI17	21100	2535	19.03	20.20	1.309	0.12	0.136	0.178

<LTE TDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant 2	DSI17	40185	2549.5	20.57	21.50	1.239	62.9	1.006	-0.08	0.247	0.308
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant 2	DSI17	40185	2549.5	20.57	21.50	1.239	62.9	1.006	0.14	0.252	0.314
43	LTE Band 41	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	40185	2549.5	20.57	21.50	1.239	62.9	1.006	-0.03	0.604	**0.753**
	LTE Band 41C	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	40185 40383	2549.5 2569.3	20.53	21.50	1.250	62.9	1.006	0.06	0.545	0.685
	LTE Band 41	20M	QPSK	1	0	Top Side	10mm	Ant 2	DSI17	40185	2549.5	20.57	21.50	1.239	62.9	1.006	-0.1	0.051	0.064
	LTE Band 41	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	39750	2506	20.44	21.50	1.276	62.9	1.006	-0.01	0.547	0.702
	LTE Band 41	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	40620	2593	20.54	21.50	1.247	62.9	1.006	-0.14	0.588	0.738
	LTE Band 41	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	41055	2636.5	20.51	21.50	1.256	62.9	1.006	0.06	0.574	0.725
	LTE Band 41	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	41490	2680	20.53	21.50	1.250	62.9	1.006	0.15	0.508	0.639
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant 2	DSI17	40185	2549.5	20.52	21.50	1.253	62.9	1.006	-0.06	0.255	0.321
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant 2	DSI17	40185	2549.5	20.52	21.50	1.253	62.9	1.006	-0.12	0.265	0.334
	LTE Band 41	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	40185	2549.5	20.52	21.50	1.253	62.9	1.006	0	0.537	0.677
	LTE Band 41	20M	QPSK	50	0	Top Side	10mm	Ant 2	DSI17	40185	2549.5	20.52	21.50	1.253	62.9	1.006	0.15	0.052	0.066
	LTE Band 41	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	39750	2506	20.38	21.50	1.294	62.9	1.006	-0.02	0.523	0.681
	LTE Band 41	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	40620	2593	20.47	21.50	1.268	62.9	1.006	-0.11	0.564	0.719
	LTE Band 41	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	41055	2636.5	20.41	21.50	1.285	62.9	1.006	0.13	0.546	0.706
	LTE Band 41	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	41490	2680	20.49	21.50	1.262	62.9	1.006	0.04	0.458	0.581
	LTE Band 41	20M	QPSK	100	0	Left Side	10mm	Ant 2	DSI17	40185	2549.5	20.48	21.50	1.265	62.9	1.006	-0.05	0.543	0.691
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant 3	DSI17	40185	2549.5	23.10	24.00	1.230	62.9	1.006	0.02	0.349	0.432
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant 3	DSI17	40185	2549.5	23.10	24.00	1.230	62.9	1.006	-0.13	0.478	0.592
	LTE Band 41	20M	QPSK	1	0	Left Side	10mm	Ant 3	DSI17	40185	2549.5	23.10	24.00	1.230	62.9	1.006	-0.11	0.155	0.192
	LTE Band 41	20M	QPSK	1	0	Right Side	10mm	Ant 3	DSI17	40185	2549.5	23.10	24.00	1.230	62.9	1.006	0.02	0.083	0.103
	LTE Band 41	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	40185	2549.5	23.10	24.00	1.230	62.9	1.006	-0.13	0.552	0.683
	LTE Band 41C	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	40185 40383	2549.5 2569.3	22.84	24.00	1.306	62.9	1.006	0.04	0.439	0.577
	LTE Band 41	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	39750	2506	23.07	24.00	1.239	62.9	1.006	-0.09	0.419	0.522
	LTE Band 41	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	40620	2593	23.09	24.00	1.233	62.9	1.006	-0.06	0.439	0.545
	LTE Band 41	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	41055	2636.5	23.06	24.00	1.242	62.9	1.006	0.01	0.503	0.628
	LTE Band 41	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	41490	2680	23.05	24.00	1.245	62.9	1.006	-0.03	0.492	0.616
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant 3	DSI17	40185	2549.5	23.05	24.00	1.245	62.9	1.006	-0.03	0.299	0.374
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant 3	DSI17	40185	2549.5	23.05	24.00	1.245	62.9	1.006	0.09	0.472	0.591
	LTE Band 41	20M	QPSK	50	0	Left Side	10mm	Ant 3	DSI17	40185	2549.5	23.05	24.00	1.245	62.9	1.006	-0.18	0.147	0.184
	LTE Band 41	20M	QPSK	50	0	Right Side	10mm	Ant 3	DSI17	40185	2549.5	23.05	24.00	1.245	62.9	1.006	0	0.078	0.098
	LTE Band 41	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	40185	2549.5	23.05	24.00	1.245	62.9	1.006	0.1	0.541	0.677
	LTE Band 41	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	39750	2506	22.95	24.00	1.274	62.9	1.006	0.15	0.419	0.537
	LTE Band 41	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	40620	2593	22.97	24.00	1.268	62.9	1.006	0.12	0.439	0.560
	LTE Band 41	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	41055	2636.5	22.97	24.00	1.268	62.9	1.006	0.04	0.503	0.641
	LTE Band 41	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	41490	2680	22.98	24.00	1.265	62.9	1.006	-0.04	0.492	0.626
	LTE Band 41	20M	QPSK	100	0	Bottom Side	10mm	Ant 3	DSI17	40185	2549.5	22.98	24.00	1.265	62.9	1.006	0.18	0.430	0.547
	LTE Band 41(HPUE)	20M	QPSK	1	0	Front	10mm	Ant 2	DSI17	40185	2549.5	22.53	23.10	1.140	42.9	1.009	-0.1	0.246	0.283
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	10mm	Ant 2	DSI17	40185	2549.5	22.53	23.10	1.140	42.9	1.009	0.13	0.236	0.272
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	40185	2549.5	22.53	23.10	1.140	42.9	1.009	-0.07	0.588	0.677
	LTE Band 41C(HPUE)	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	40185 40383	2549.5 2569.3	21.57	23.10	1.422	42.9	1.009	0.06	0.444	0.637
	LTE Band 41(HPUE)	20M	QPSK	1	0	Top Side	10mm	Ant 2	DSI17	40185	2549.5	22.53	23.10	1.140	42.9	1.009	0.1	0.053	0.061
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	39750	2506	22.51	23.10	1.146	42.9	1.009	-0.08	0.516	0.596
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	40620	2593	22.45	23.10	1.161	42.9	1.009	-0.14	0.574	0.673
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	41055	2636.5	22.31	23.10	1.199	42.9	1.009	0.05	0.553	0.669
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	10mm	Ant 2	DSI17	41490	2680	22.47	23.10	1.156	42.9	1.009	-0.07	0.508	0.593
	LTE Band 41(HPUE)	20M	QPSK	50	0	Front	10mm	Ant 2	DSI17	40185	2549.5	22.47	23.10	1.156	42.9	1.009	0.11	0.255	0.297
	LTE Band 41(HPUE)	20M	QPSK	50	0	Back	10mm	Ant 2	DSI17	40185	2549.5	22.47	23.10	1.156	42.9	1.009	-0.09	0.268	0.313
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	40185	2549.5	22.47	23.10	1.156	42.9	1.009	0	0.577	0.673
	LTE Band 41(HPUE)	20M	QPSK	50	0	Top Side	10mm	Ant 2	DSI17	40185	2549.5	22.47	23.10	1.156	42.9	1.009	-0.14	0.053	0.062

	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	39750	2506	22.42	23.10	1.169	42.9	1.009	0.16	0.436	0.514
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	40620	2593	22.33	23.10	1.194	42.9	1.009	0.16	0.512	0.617
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	41055	2636.5	22.19	23.10	1.233	42.9	1.009	-0.03	0.483	0.601
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	10mm	Ant 2	DSI17	41490	2680	22.41	23.10	1.172	42.9	1.009	-0.01	0.488	0.577
	LTE Band 41(HPUE)	20M	QPSK	100	0	Left Side	10mm	Ant 2	DSI17	40185	2549.5	22.43	23.10	1.167	42.9	1.009	-0.07	0.574	0.676
	LTE Band 41(HPUE)	20M	QPSK	1	0	Front	10mm	Ant 3	DSI17	40185	2549.5	24.86	25.60	1.186	42.9	1.009	0.08	0.309	0.370
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	10mm	Ant 3	DSI17	40185	2549.5	24.86	25.60	1.186	42.9	1.009	0.02	0.494	0.591
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	10mm	Ant 3	DSI17	40185	2549.5	24.86	25.60	1.186	42.9	1.009	0.11	0.150	0.179
	LTE Band 41(HPUE)	20M	QPSK	1	0	Right Side	10mm	Ant 3	DSI17	40185	2549.5	24.86	25.60	1.186	42.9	1.009	-0.12	0.078	0.093
	LTE Band 41(HPUE)	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	40185	2549.5	24.86	25.60	1.186	42.9	1.009	-0.18	0.526	0.629
	LTE Band 41C(HPUE)	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	40185 40383	2549.5 2569.3	24.08	25.60	1.419	42.9	1.009	0.03	0.411	0.588
	LTE Band 41(HPUE)	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	39750	2506	24.76	25.60	1.213	42.9	1.009	0.12	0.506	0.620
	LTE Band 41(HPUE)	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	40620	2593	24.73	25.60	1.222	42.9	1.009	0.07	0.458	0.565
	LTE Band 41(HPUE)	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	41055	2636.5	24.81	25.60	1.199	42.9	1.009	0.02	0.508	0.615
	LTE Band 41(HPUE)	20M	QPSK	1	0	Bottom Side	10mm	Ant 3	DSI17	41490	2680	24.81	25.60	1.199	42.9	1.009	-0.03	0.502	0.608
	LTE Band 41(HPUE)	20M	QPSK	50	0	Front	10mm	Ant 3	DSI17	40185	2549.5	24.81	25.60	1.199	42.9	1.009	-0.04	0.302	0.366
	LTE Band 41(HPUE)	20M	QPSK	50	0	Back	10mm	Ant 3	DSI17	40185	2549.5	24.81	25.60	1.199	42.9	1.009	0.05	0.506	0.612
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	10mm	Ant 3	DSI17	40185	2549.5	24.81	25.60	1.199	42.9	1.009	-0.09	0.141	0.171
	LTE Band 41(HPUE)	20M	QPSK	50	0	Right Side	10mm	Ant 3	DSI17	40185	2549.5	24.81	25.60	1.199	42.9	1.009	-0.03	0.071	0.086
	LTE Band 41(HPUE)	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	40185	2549.5	24.81	25.60	1.199	42.9	1.009	-0.11	0.513	0.621
	LTE Band 41(HPUE)	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	39750	2506	24.64	25.60	1.247	42.9	1.009	-0.14	0.460	0.579
	LTE Band 41(HPUE)	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	40620	2593	24.68	25.60	1.236	42.9	1.009	0.17	0.493	0.615
	LTE Band 41(HPUE)	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	41055	2636.5	24.72	25.60	1.225	42.9	1.009	-0.01	0.507	0.626
	LTE Band 41(HPUE)	20M	QPSK	50	0	Bottom Side	10mm	Ant 3	DSI17	41490	2680	24.73	25.60	1.222	42.9	1.009	-0.13	0.502	0.619
	LTE Band 41(HPUE)	20M	QPSK	100	0	Bottom Side	10mm	Ant 3	DSI17	40185	2549.5	24.73	25.60	1.222	42.9	1.009	-0.13	0.507	0.625
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant 5	DSI17	40185	2549.5	21.81	23.00	1.315	62.9	1.006	-0.16	0.231	0.306
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant 5	DSI17	40185	2549.5	21.81	23.00	1.315	62.9	1.006	0.07	0.261	0.345
	LTE Band 41	20M	QPSK	1	0	Left Side	10mm	Ant 5	DSI17	40185	2549.5	21.81	23.00	1.315	62.9	1.006	-0.1	0.127	0.168
	LTE Band 41	20M	QPSK	1	0	Right Side	10mm	Ant 5	DSI17	40185	2549.5	21.81	23.00	1.315	62.9	1.006	-0.13	0.037	0.049
	LTE Band 41	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	40185	2549.5	21.81	23.00	1.315	62.9	1.006	-0.03	0.541	0.716
	LTE Band 41	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	39750	2506	21.77	23.00	1.327	62.9	1.006	-0.1	0.329	0.439
	LTE Band 41	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	40620	2593	21.80	23.00	1.318	62.9	1.006	0.17	0.546	0.724
	LTE Band 41	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	41055	2636.5	21.71	23.00	1.346	62.9	1.006	-0.06	0.465	0.630
	LTE Band 41	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	41490	2680	21.55	23.00	1.396	62.9	1.006	0.04	0.351	0.493
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant 5	DSI17	40185	2549.5	21.71	23.00	1.346	62.9	1.006	0.03	0.294	0.398
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant 5	DSI17	40185	2549.5	21.71	23.00	1.346	62.9	1.006	0.02	0.329	0.445
	LTE Band 41	20M	QPSK	50	0	Left Side	10mm	Ant 5	DSI17	40185	2549.5	21.71	23.00	1.346	62.9	1.006	-0.15	0.162	0.219
	LTE Band 41	20M	QPSK	50	0	Right Side	10mm	Ant 5	DSI17	40185	2549.5	21.71	23.00	1.346	62.9	1.006	0.1	0.049	0.066
	LTE Band 41	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	40185	2549.5	21.71	23.00	1.346	62.9	1.006	0.07	0.521	0.705
	LTE Band 41	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	39750	2506	21.69	23.00	1.352	62.9	1.006	0.15	0.407	0.554
	LTE Band 41	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	40620	2593	21.41	23.00	1.442	62.9	1.006	0.16	0.497	0.721
	LTE Band 41	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	41055	2636.5	21.59	23.00	1.384	62.9	1.006	-0.08	0.449	0.625
	LTE Band 41	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	41490	2680	21.45	23.00	1.429	62.9	1.006	-0.06	0.349	0.502
	LTE Band 41	20M	QPSK	100	0	Top Side	10mm	Ant 5	DSI17	40185	2549.5	21.67	23.00	1.358	62.9	1.006	0.16	0.521	0.712
	LTE Band 41	20M	QPSK	1	0	Front	10mm	Ant 6	DSI17	40185	2549.5	20.26	21.00	1.186	62.9	1.006	-0.08	0.216	0.258
	LTE Band 41	20M	QPSK	1	0	Back	10mm	Ant 6	DSI17	40185	2549.5	20.26	21.00	1.186	62.9	1.006	-0.08	0.313	0.373
	LTE Band 41	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	40185	2549.5	20.26	21.00	1.186	62.9	1.006	0.03	0.450	0.537
	LTE Band 41	20M	QPSK	1	0	Top Side	10mm	Ant 6	DSI17	40185	2549.5	20.26	21.00	1.186	62.9	1.006	0.1	0.121	0.144
	LTE Band 41	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	39750	2506	20.18	21.00	1.208	62.9	1.006	0.02	0.505	0.614
	LTE Band 41	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	40620	2593	20.18	21.00	1.208	62.9	1.006	0.14	0.416	0.505
	LTE Band 41	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	41055	2636.5	20.11	21.00	1.227	62.9	1.006	-0.02	0.373	0.461
	LTE Band 41	20M	QPSK	1	0	Right Side	10mm	Ant 6	DSI17	41490	2680	20.20	21.00	1.202	62.9	1.006	-0.14	0.329	0.398
	LTE Band 41	20M	QPSK	50	0	Front	10mm	Ant 6	DSI17	40185	2549.5	20.18	21.00	1.208	62.9	1.006	0.07	0.201	0.244
	LTE Band 41	20M	QPSK	50	0	Back	10mm	Ant 6	DSI17	40185	2549.5	20.18	21.00	1.208	62.9	1.006	0.01	0.286	0.348
	LTE Band 41	20M	QPSK	50	0	Right Side	10mm	Ant 6	DSI17	40185	2549.5	20.18	21.00	1.208	62.9	1.006	-0.07	0.424	0.515
	LTE Band 41	20M	QPSK	50	0	Top Side	10mm	Ant 6	DSI17	40185	2549.5	20.18	21.00	1.208	62.9	1.006	-0.15	0.119	0.145

	LTE Band 41	20M	QPSK	50	0	Right Side	10mm	Ant 6	DSI17	39750	2506	20.13	21.00	1.222	62.9	1.006	0.02	0.493	0.606
	LTE Band 41	20M	QPSK	50	0	Right Side	10mm	Ant 6	DSI17	40620	2593	20.15	21.00	1.216	62.9	1.006	0.05	0.400	0.489
	LTE Band 41	20M	QPSK	50	0	Right Side	10mm	Ant 6	DSI17	41055	2636.5	20.15	21.00	1.216	62.9	1.006	0.04	0.339	0.415
	LTE Band 41	20M	QPSK	50	0	Right Side	10mm	Ant 6	DSI17	41490	2680	20.06	21.00	1.242	62.9	1.006	0.17	0.303	0.378
	LTE Band 41	20M	QPSK	100	0	Right Side	10mm	Ant 6	DSI17	40185	2549.5	20.14	21.00	1.219	62.9	1.006	-0.06	0.408	0.500
	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant 5	DSI17	55830	3609	20.17	21.00	1.211	62.9	1.006	-0.01	0.280	0.341
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant 5	DSI17	55830	3609	20.17	21.00	1.211	62.9	1.006	-0.18	0.408	0.497
	LTE Band 48	20M	QPSK	1	0	Left Side	10mm	Ant 5	DSI17	55830	3609	20.17	21.00	1.211	62.9	1.006	-0.08	0.077	0.094
	LTE Band 48	20M	QPSK	1	0	Right Side	10mm	Ant 5	DSI17	55830	3609	20.17	21.00	1.211	62.9	1.006	0.1	0.000	0.000
	LTE Band 48	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	55830	3609	20.17	21.00	1.211	62.9	1.006	-0.13	0.471	0.574
44	LTE Band 48	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	55340	3560	19.92	21.00	1.282	62.9	1.006	-0.13	0.508	**0.655**
	LTE Band 48C	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	55830 55632	3609 3589.2	19.65	21.00	1.365	62.9	1.006	0.13	0.443	0.608
	LTE Band 48	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	56150	3641	20.04	21.00	1.247	62.9	1.006	-0.03	0.394	0.494
	LTE Band 48	20M	QPSK	1	0	Top Side	10mm	Ant 5	DSI17	56640	3690	20.06	21.00	1.242	62.9	1.006	-0.02	0.322	0.402
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant 5	DSI17	55830	3609	20.08	21.00	1.236	62.9	1.006	-0.16	0.281	0.349
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant 5	DSI17	55830	3609	20.08	21.00	1.236	62.9	1.006	0.17	0.415	0.516
	LTE Band 48	20M	QPSK	50	0	Left Side	10mm	Ant 5	DSI17	55830	3609	20.08	21.00	1.236	62.9	1.006	0.12	0.073	0.091
	LTE Band 48	20M	QPSK	50	0	Right Side	10mm	Ant 5	DSI17	55830	3609	20.08	21.00	1.236	62.9	1.006	0.14	0.000	0.000
	LTE Band 48	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	55830	3609	20.08	21.00	1.236	62.9	1.006	-0.06	0.471	0.586
	LTE Band 48	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	55340	3560	19.81	21.00	1.315	62.9	1.006	-0.01	0.471	0.623
	LTE Band 48	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	56150	3641	19.95	21.00	1.274	62.9	1.006	0.18	0.393	0.503
	LTE Band 48	20M	QPSK	50	0	Top Side	10mm	Ant 5	DSI17	56640	3690	19.91	21.00	1.285	62.9	1.006	0.03	0.315	0.407
	LTE Band 48	20M	QPSK	100	0	Top Side	10mm	Ant 5	DSI17	55830	3609	20.04	21.00	1.247	62.9	1.006	0.11	0.461	0.578
	LTE Band 48	20M	QPSK	1	0	Front	10mm	Ant 10	DSI17	55830	3609	21.53	22.50	1.250	62.9	1.006	0.08	0.082	0.103
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant 10	DSI17	55830	3609	21.53	22.50	1.250	62.9	1.006	-0.17	0.469	0.590
	LTE Band 48C	20M	QPSK	1	0	Back	10mm	Ant 10	DSI17	55830 55632	3609 3589.2	21.15	22.50	1.365	62.9	1.006	0.09	0.355	0.487
	LTE Band 48	20M	QPSK	1	0	Left Side	10mm	Ant 10	DSI17	55830	3609	21.53	22.50	1.250	62.9	1.006	-0.06	0.299	0.376
	LTE Band 48	20M	QPSK	1	0	Top Side	10mm	Ant 10	DSI17	55830	3609	21.53	22.50	1.250	62.9	1.006	0.14	0.101	0.127
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant 10	DSI17	55340	3560	21.36	22.50	1.300	62.9	1.006	-0.11	0.443	0.579
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant 10	DSI17	56150	3641	21.42	22.50	1.282	62.9	1.006	-0.14	0.439	0.566
	LTE Band 48	20M	QPSK	1	0	Back	10mm	Ant 10	DSI17	56640	3690	21.47	22.50	1.268	62.9	1.006	0.02	0.431	0.550
	LTE Band 48	20M	QPSK	50	0	Front	10mm	Ant 10	DSI17	55830	3609	21.50	22.50	1.259	62.9	1.006	0.06	0.081	0.103
	LTE Band 48	20M	QPSK	50	0	Back	10mm	Ant 10	DSI17	55830	3609	21.50	22.50	1.259	62.9	1.006	-0.17	0.450	0.570
	LTE Band 48	20M	QPSK	50	0	Left Side	10mm	Ant 10	DSI17	55830	3609	21.50	22.50	1.259	62.9	1.006	0.09	0.331	0.419
	LTE Band 48	20M	QPSK	50	0	Top Side	10mm	Ant 10	DSI17	55830	3609	21.50	22.50	1.259	62.9	1.006	-0.14	0.107	0.136

<LTE FDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI17	136100	680.5	21.97	23.20	1.327	-0.03	0.285	0.378
	N71	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI17	136100	680.5	21.97	23.20	1.327	0.18	0.256	0.340
	N71	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI17	136100	680.5	21.97	23.20	1.327	0.01	0.475	0.631
	N71	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 0	DSI17	136100	680.5	21.97	23.20	1.327	0.09	Na	Na
	N71	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	DSI17	136100	680.5	21.93	23.20	1.340	0.06	0.275	0.368
	N71	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	DSI17	136100	680.5	21.93	23.20	1.340	-0.06	0.265	0.355
45	N71	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	DSI17	136100	680.5	21.93	23.20	1.340	0.02	0.506	**0.678**
	N71	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 0	DSI17	136100	680.5	21.93	23.20	1.340	-0.02	Na	Na
	N71	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI17	136100	680.5	24.13	25.20	1.279	0.05	0.143	0.183
	N71	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI17	136100	680.5	24.13	25.20	1.279	0.07	0.166	0.212
	N71	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 1	DSI17	136100	680.5	24.13	25.20	1.279	0.13	0.275	0.352
	N71	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	DSI17	136100	680.5	24.13	25.20	1.279	-0.16	0.147	0.188
	N71	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	DSI17	136100	680.5	23.99	25.20	1.321	0.01	0.193	0.255
	N71	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	DSI17	136100	680.5	23.99	25.20	1.321	0.03	0.222	0.293
	N71	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 1	DSI17	136100	680.5	23.99	25.20	1.321	0.16	0.301	0.398
	N71	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 1	DSI17	136100	680.5	23.99	25.20	1.321	0.18	0.195	0.258
	N5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI17	167300	836.5	22.02	23.20	1.312	0.07	0.348	0.457
	N5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI17	167300	836.5	22.02	23.20	1.312	0.06	0.289	0.379
46	N5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI17	167300	836.5	22.02	23.20	1.312	0.02	0.562	**0.737**
	N5	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 0	DSI17	167300	836.5	22.02	23.20	1.312	-0.1	Na	Na
	N5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	DSI17	167300	836.5	21.93	23.20	1.340	0.1	0.424	0.568
	N5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	DSI17	167300	836.5	21.93	23.20	1.340	0.08	0.352	0.472
	N5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	DSI17	167300	836.5	21.93	23.20	1.340	0.02	0.522	0.699
	N5	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 0	DSI17	167300	836.5	21.93	23.20	1.340	0.09	Na	Na
	N5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI17	167300	836.5	23.45	24.70	1.334	0.13	0.157	0.209
	N5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI17	167300	836.5	23.45	24.70	1.334	0.06	0.173	0.231
	N5	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 1	DSI17	167300	836.5	23.45	24.70	1.334	-0.07	0.157	0.209
	N5	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	DSI17	167300	836.5	23.45	24.70	1.334	0.14	0.158	0.211
	N5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	DSI17	167300	836.5	23.30	24.70	1.380	0.05	0.180	0.248
	N5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	DSI17	167300	836.5	23.30	24.70	1.380	0.11	0.267	0.369
	N5	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 1	DSI17	167300	836.5	23.30	24.70	1.380	-0.15	0.177	0.244
	N5	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 1	DSI17	167300	836.5	23.30	24.70	1.380	-0.12	0.177	0.244
	N66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 2	DSI17	349000	1745	20.73	21.70	1.250	0.06	0.275	0.344
	N66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI17	349000	1745	20.73	21.70	1.250	-0.08	0.240	0.300
	N66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 2	DSI17	349000	1745	20.73	21.70	1.250	-0.16	0.466	0.583
	N66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 2	DSI17	349000	1745	20.73	21.70	1.250	-0.03	0.162	0.203
	N66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 2	DSI17	349000	1745	20.70	21.70	1.259	-0.13	0.313	0.394
	N66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 2	DSI17	349000	1745	20.70	21.70	1.259	-0.14	0.280	0.352
	N66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 2	DSI17	349000	1745	20.70	21.70	1.259	0.16	0.567	0.714
	N66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 2	DSI17	349000	1745	20.70	21.70	1.259	-0.04	0.165	0.208
	N66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI17	349000	1745	19.96	21.20	1.330	-0.12	0.309	0.411
	N66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI17	349000	1745	19.96	21.20	1.330	-0.15	0.372	0.495
	N66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI17	349000	1745	19.96	21.20	1.330	-0.16	0.137	0.182
	N66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 3	DSI17	349000	1745	19.96	21.20	1.330	0.01	0.072	0.096
	N66	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 3	DSI17	349000	1745	19.96	21.20	1.330	-0.18	0.532	0.708
	N66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 3	DSI17	349000	1745	19.88	21.20	1.355	-0.06	0.326	0.442
	N66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 3	DSI17	349000	1745	19.88	21.20	1.355	-0.06	0.407	0.552
	N66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 3	DSI17	349000	1745	19.88	21.20	1.355	0.09	0.146	0.198
	N66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 3	DSI17	349000	1745	19.88	21.20	1.355	0.03	0.078	0.106
47	N66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 3	DSI17	349000	1745	19.88	21.20	1.355	-0.02	0.551	**0.747**
	N66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	DSI17	349000	1745	23.97	25.20	1.327	0.1	0.016	0.021
	N66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	DSI17	349000	1745	23.97	25.20	1.327	0.03	0.050	0.066
	N66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	DSI17	349000	1745	23.97	25.20	1.327	-	Na	Na
	N66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 5	DSI17	349000	1745	23.97	25.20	1.327	-	Na	Na

	N66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 5	DSI17	349000	1745	23.97	25.20	1.327	0.08	0.080	0.106
	N66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	DSI17	349000	1745	23.89	25.20	1.352	0.05	0.011	0.015
	N66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	DSI17	349000	1745	23.89	25.20	1.352	-0.18	0.055	0.074
	N66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 5	DSI17	349000	1745	23.89	25.20	1.352	-	Na	Na
	N66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 5	DSI17	349000	1745	23.89	25.20	1.352	-	Na	Na
	N66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 5	DSI17	349000	1745	23.89	25.20	1.352	0.04	0.094	0.127
	N66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	DSI17	349000	1745	22.22	23.20	1.253	0.18	0.013	0.016
	N66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	DSI17	349000	1745	22.22	23.20	1.253	0.11	0.022	0.028
	N66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 6	DSI17	349000	1745	22.22	23.20	1.253	0.15	0.061	0.076
	N66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	DSI17	349000	1745	22.22	23.20	1.253	-	Na	Na
	N66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 6	DSI17	349000	1745	22.06	23.20	1.300	-0.03	0.010	0.013
	N66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 6	DSI17	349000	1745	22.06	23.20	1.300	-0.01	0.020	0.026
	N66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 6	DSI17	349000	1745	22.06	23.20	1.300	-0.17	0.061	0.080
	N66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 6	DSI17	349000	1745	22.06	23.20	1.300	-	Na	Na
	N25	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 2	DSI17	376500	1882.5	20.37	21.70	1.358	-0.14	0.315	0.428
	N25	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI17	376500	1882.5	20.37	21.70	1.358	-0.16	0.298	0.405
	N25	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 2	DSI17	376500	1882.5	20.37	21.70	1.358	-0.05	0.495	0.672
	N25	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 2	DSI17	376500	1882.5	20.37	21.70	1.358	0.01	0.097	0.132
	N25	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 2	DSI17	376500	1882.5	20.34	21.70	1.368	-0.15	0.335	0.458
	N25	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 2	DSI17	376500	1882.5	20.34	21.70	1.368	0.05	0.331	0.453
48	N25	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 2	DSI17	376500	1882.5	20.34	21.70	1.368	0.14	0.525	**0.718**
	N25	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 2	DSI17	376500	1882.5	20.34	21.70	1.368	0.07	0.098	0.134
	N25	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI17	376500	1882.5	19.78	20.70	1.236	0.15	0.278	0.344
	N25	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI17	376500	1882.5	19.78	20.70	1.236	-0.1	0.344	0.425
	N25	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI17	376500	1882.5	19.78	20.70	1.236	0.04	0.159	0.197
	N25	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 3	DSI17	376500	1882.5	19.78	20.70	1.236	-0.14	0.065	0.080
	N25	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 3	DSI17	376500	1882.5	19.78	20.70	1.236	0.05	0.568	0.702
	N25	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 3	DSI17	376500	1882.5	19.77	20.70	1.239	-0.07	0.292	0.362
	N25	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 3	DSI17	376500	1882.5	19.77	20.70	1.239	0	0.361	0.447
	N25	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 3	DSI17	376500	1882.5	19.77	20.70	1.239	0.02	0.181	0.224
	N25	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 3	DSI17	376500	1882.5	19.77	20.70	1.239	-0.07	0.066	0.082
	N25	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 3	DSI17	376500	1882.5	19.77	20.70	1.239	-0.15	0.525	0.650
	N30	10M	QPSK	1	1	DFT-15	Front	10mm	Ant 2	DSI17	462000	2310	20.35	21.20	1.216	-0.14	0.323	0.393
	N30	10M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI17	462000	2310	20.35	21.20	1.216	-0.06	0.368	0.448
49	N30	10M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 2	DSI17	462000	2310	20.35	21.20	1.216	0.06	0.631	**0.767**
	N30	10M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 2	DSI17	462000	2310	20.35	21.20	1.216	-0.17	0.044	0.054
	N30	10M	QPSK	25	14	DFT-15	Front	10mm	Ant 2	DSI17	462000	2310	20.31	21.20	1.227	0.11	0.319	0.392
	N30	10M	QPSK	25	14	DFT-15	Back	10mm	Ant 2	DSI17	462000	2310	20.31	21.20	1.227	-0.13	0.366	0.449
	N30	10M	QPSK	25	14	DFT-15	Left Side	10mm	Ant 2	DSI17	462000	2310	20.31	21.20	1.227	0.17	0.621	0.762
	N30	10M	QPSK	25	14	DFT-15	Top Side	10mm	Ant 2	DSI17	462000	2310	20.31	21.20	1.227	0.1	0.024	0.029
	N30	10M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI17	462000	2310	19.89	21.20	1.352	-0.12	0.305	0.412
	N30	10M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI17	462000	2310	19.89	21.20	1.352	0	0.376	0.508
	N30	10M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI17	462000	2310	19.89	21.20	1.352	0	0.149	0.201
	N30	10M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 3	DSI17	462000	2310	19.89	21.20	1.352	-0.1	0.073	0.099
	N30	10M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 3	DSI17	462000	2310	19.89	21.20	1.352	0.09	0.455	0.615
	N30	10M	QPSK	25	14	DFT-15	Front	10mm	Ant 3	DSI17	462000	2310	19.78	21.20	1.387	-0.1	0.297	0.412
	N30	10M	QPSK	25	14	DFT-15	Back	10mm	Ant 3	DSI17	462000	2310	19.78	21.20	1.387	0.14	0.410	0.569
	N30	10M	QPSK	25	14	DFT-15	Left Side	10mm	Ant 3	DSI17	462000	2310	19.78	21.20	1.387	0.16	0.149	0.207
	N30	10M	QPSK	25	14	DFT-15	Right Side	10mm	Ant 3	DSI17	462000	2310	19.78	21.20	1.387	-0.02	0.072	0.100
	N30	10M	QPSK	25	14	DFT-15	Bottom Side	10mm	Ant 3	DSI17	462000	2310	19.78	21.20	1.387	0.06	0.516	0.716
	N7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 2	DSI17	507000	2535	18.39	19.20	1.205	0.06	0.218	0.263
	N7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI17	507000	2535	18.39	19.20	1.205	0.03	0.211	0.254
	N7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 2	DSI17	507000	2535	18.39	19.20	1.205	-0.15	0.576	0.694
	N7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 2	DSI17	507000	2535	18.39	19.20	1.205	-0.12	0.066	0.080
	N7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 2	DSI17	507000	2535	18.34	19.20	1.219	-0.07	0.235	0.286
	N7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 2	DSI17	507000	2535	18.34	19.20	1.219	-0.16	0.221	0.269
	N7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 2	DSI17	507000	2535	18.34	19.20	1.219	-0.13	0.523	0.638

	N7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 2	DSI17	507000	2535	18.34	19.20	1.219	0.12	0.061	0.074
	N7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI17	507000	2535	20.25	21.20	1.245	0.15	0.284	0.353
	N7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI17	507000	2535	20.25	21.20	1.245	0.15	0.384	0.478
	N7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI17	507000	2535	20.25	21.20	1.245	-0.14	0.118	0.147
	N7	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 3	DSI17	507000	2535	20.25	21.20	1.245	-0.1	0.077	0.096
	N7	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 3	DSI17	507000	2535	20.25	21.20	1.245	0.1	0.490	0.610
	N7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 3	DSI17	507000	2535	20.24	21.20	1.247	0.14	0.281	0.351
	N7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 3	DSI17	507000	2535	20.24	21.20	1.247	-0.05	0.424	0.529
	N7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 3	DSI17	507000	2535	20.24	21.20	1.247	-0.07	0.122	0.152
	N7	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 3	DSI17	507000	2535	20.24	21.20	1.247	-0.06	0.066	0.082
50	N7	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 3	DSI17	507000	2535	20.24	21.20	1.247	0.02	0.576	**0.718**

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 2	DSI17	518598	2592.99	17.36	18.70	1.361	0.18	0.175	0.238
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 2	DSI17	518598	2592.99	17.36	18.70	1.361	0.09	0.170	0.231
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 2	DSI17	518598	2592.99	17.36	18.70	1.361	-0.05	0.500	0.681
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 2	DSI17	518598	2592.99	17.36	18.70	1.361	0.13	0.039	0.053
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI17	518598	2592.99	17.34	18.70	1.368	-0.01	0.171	0.234
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI17	518598	2592.99	17.34	18.70	1.368	-0.01	0.169	0.231
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI17	518598	2592.99	17.34	18.70	1.368	0.07	0.435	0.595
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 2	DSI17	518598	2592.99	17.34	18.70	1.368	0.04	0.024	0.033
	N41(HPUE)	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 2	DSI17	518598	2592.99	17.33	18.70	1.371	-0.16	0.339	0.465
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI17	518598	2592.99	21.51	22.70	1.315	-0.14	0.292	0.384
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI17	518598	2592.99	21.51	22.70	1.315	-0.13	0.334	0.439
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI17	518598	2592.99	21.51	22.70	1.315	0.18	0.151	0.199
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 3	DSI17	518598	2592.99	21.51	22.70	1.315	0.15	0.091	0.120
51	N41(HPUE)	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 3	DSI17	518598	2592.99	21.51	22.70	1.315	-0.17	0.570	**0.750**
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI17	518598	2592.99	21.45	22.70	1.334	-0.15	0.236	0.315
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI17	518598	2592.99	21.45	22.70	1.334	0.16	0.279	0.372
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI17	518598	2592.99	21.45	22.70	1.334	0.07	0.118	0.157
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 3	DSI17	518598	2592.99	21.45	22.70	1.334	0.15	0.062	0.083
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 3	DSI17	518598	2592.99	21.45	22.70	1.334	-0.18	0.497	0.663
	N41(HPUE)	100M	QPSK	270	0	DFT-30	Bottom Side	10mm	Ant 3	DSI17	518598	2592.99	21.38	22.70	1.355	0.06	0.478	0.648
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI17	518598	2592.99	18.95	20.20	1.334	-0.13	0.218	0.291
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI17	518598	2592.99	18.95	20.20	1.334	-0.04	0.226	0.301
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	DSI17	518598	2592.99	18.95	20.20	1.334	0.16	0.153	0.204
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI17	518598	2592.99	18.95	20.20	1.334	-0.05	0.054	0.072
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI17	518598	2592.99	18.95	20.20	1.334	-0.01	0.530	0.707
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI17	518598	2592.99	18.91	20.20	1.346	-0.15	0.203	0.273
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI17	518598	2592.99	18.91	20.20	1.346	-0.18	0.217	0.292
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI17	518598	2592.99	18.91	20.20	1.346	0.02	0.136	0.183
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI17	518598	2592.99	18.91	20.20	1.346	-0.02	0.052	0.070
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI17	518598	2592.99	18.91	20.20	1.346	-0.09	0.385	0.518
	N41(HPUE)	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 5	DSI17	518598	2592.99	18.85	20.20	1.365	0.03	0.408	0.557
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI17	518598	2592.99	18.77	19.70	1.239	0.01	0.202	0.250
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI17	518598	2592.99	18.77	19.70	1.239	0.02	0.307	0.380
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 6	DSI17	518598	2592.99	18.77	19.70	1.239	0.07	0.449	0.556
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI17	518598	2592.99	18.77	19.70	1.239	0.02	0.126	0.156
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI17	518598	2592.99	18.74	19.70	1.247	0.12	0.145	0.181
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI17	518598	2592.99	18.74	19.70	1.247	-0.12	0.210	0.262
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI17	518598	2592.99	18.74	19.70	1.247	0.17	0.367	0.458
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI17	518598	2592.99	18.74	19.70	1.247	0.13	0.093	0.116

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI17	656000	3840	17.24	18.70	1.400	0.08	0.178	0.249
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI17	656000	3840	17.24	18.70	1.400	-0.14	0.166	0.232
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	DSI17	656000	3840	17.24	18.70	1.400	-	Na	Na
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI17	656000	3840	17.24	18.70	1.400	0.11	0.009	0.013
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI17	656000	3840	17.24	18.70	1.400	-0.03	0.139	0.195
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI17	656000	3840	17.19	18.70	1.416	0.16	0.152	0.215
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI17	656000	3840	17.19	18.70	1.416	-0.18	0.150	0.212
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI17	656000	3840	17.19	18.70	1.416	-	Na	Na
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI17	656000	3840	17.19	18.70	1.416	-0.08	0.008	0.011
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI17	656000	3840	17.19	18.70	1.416	0.07	0.131	0.185
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI17	633332	3499.98	17.75	18.70	1.245	0.04	0.269	0.335
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI17	633332	3499.98	17.75	18.70	1.245	-0.07	0.375	0.467
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	DSI17	633332	3499.98	17.75	18.70	1.245	-0.15	0.158	0.197
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI17	633332	3499.98	17.75	18.70	1.245	0.01	0.075	0.093
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI17	633332	3499.98	17.75	18.70	1.245	-0.01	0.477	0.594
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI17	633332	3499.98	17.73	18.70	1.250	0.15	0.286	0.358
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI17	633332	3499.98	17.73	18.70	1.250	-0.17	0.413	0.516
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI17	633332	3499.98	17.73	18.70	1.250	-0.11	0.141	0.176
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI17	633332	3499.98	17.73	18.70	1.250	0.13	0.069	0.086
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI17	633332	3499.98	17.73	18.70	1.250	0.03	0.525	0.656
	N77 Part 27Q(HPUE)	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 5	DSI17	633332	3499.98	17.70	18.70	1.259	0.06	0.506	0.637
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 10	DSI17	656000	3840	18.16	19.20	1.271	-0.1	0.063	0.080
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 10	DSI17	656000	3840	18.16	19.20	1.271	-0.1	0.500	0.635
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 10	DSI17	656000	3840	18.16	19.20	1.271	-0.08	0.217	0.276
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 10	DSI17	656000	3840	18.16	19.20	1.271	-	Na	Na
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 10	DSI17	656000	3840	18.16	19.20	1.271	-	Na	Na
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 10	DSI17	656000	3840	18.16	19.20	1.271	0.17	0.088	0.112
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 10	DSI17	656000	3840	18.11	19.20	1.285	-0.12	0.059	0.076
53	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 10	DSI17	656000	3840	18.11	19.20	1.285	0.17	0.515	**0.662**
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 10	DSI17	656000	3840	18.11	19.20	1.285	-0.17	0.240	0.308
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 10	DSI17	656000	3840	18.11	19.20	1.285	-	Na	Na
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 10	DSI17	656000	3840	18.11	19.20	1.285	-	Na	Na
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 10	DSI17	656000	3840	18.11	19.20	1.285	0.11	0.083	0.107
	N77 Part 27O(HPUE)	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 10	DSI17	656000	3840	18.10	19.20	1.288	0.06	0.501	0.645
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 10	DSI17	633332	3499.98	18.16	19.20	1.271	0.11	0.064	0.081
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 10	DSI17	633332	3499.98	18.16	19.20	1.271	0.08	0.401	0.510
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 10	DSI17	633332	3499.98	18.16	19.20	1.271	0.13	0.297	0.377
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 10	DSI17	633332	3499.98	18.16	19.20	1.271	-	Na	Na
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 10	DSI17	633332	3499.98	18.16	19.20	1.271	-	Na	Na
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 10	DSI17	633332	3499.98	18.16	19.20	1.271	-0.15	0.075	0.095
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 10	DSI17	633332	3499.98	18.15	19.20	1.274	-0.04	0.063	0.080
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 10	DSI17	633332	3499.98	18.15	19.20	1.274	-0.02	0.386	0.492
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 10	DSI17	633332	3499.98	18.15	19.20	1.274	-0.18	0.298	0.380
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 10	DSI17	633332	3499.98	18.15	19.20	1.274	-	Na	Na
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 10	DSI17	633332	3499.98	18.15	19.20	1.274	-	Na	Na
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 10	DSI17	633332	3499.98	18.15	19.20	1.274	-0.16	0.074	0.094

< Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 4	Power level 2/3	39	2441	10.26	11.00	1.186	77.07	1.298	-0.17	0.015	0.023
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 4	Power level 2/3	39	2441	10.26	11.00	1.186	77.07	1.298	0.05	0.018	0.028
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 4	Power level 2/3	39	2441	10.26	11.00	1.186	77.07	1.298	-	Na	Na
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 4	Power level 2/3	39	2441	10.26	11.00	1.186	77.07	1.298	0.11	0.020	0.031
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 4	Power level 2/3	39	2441	10.26	11.00	1.186	77.07	1.298	-0.04	0.022	0.034
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 4	Power level 2/3	0	2402	10.12	11.00	1.225	77.07	1.298	-0.17	0.030	0.048
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 4	Power level 2/3	78	2480	9.83	11.00	1.309	77.07	1.298	0.1	0.025	0.042
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 7	Power level 2/3	39	2441	11.73	12.00	1.064	77.07	1.298	0.02	0.020	0.028
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 7	Power level 2/3	39	2441	11.73	12.00	1.064	77.07	1.298	0.1	0.015	0.021
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 7	Power level 2/3	39	2441	11.73	12.00	1.064	77.07	1.298	-	Na	Na
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power level 2/3	39	2441	11.73	12.00	1.064	77.07	1.298	0.11	0.019	0.026
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 7	Power level 2/3	39	2441	11.73	12.00	1.064	77.07	1.298	-	Na	Na
54	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power level 2/3	0	2402	11.26	12.00	1.186	77.07	1.298	0.11	0.070	**0.108**
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power level 2/3	78	2480	11.12	12.00	1.225	77.07	1.298	0.03	0.050	0.079

<WLAN2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	Full	1	2412	19.06	20.50	1.393	97.06	1.030	0.03	0.289	0.415
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Full	1	2412	19.06	20.50	1.393	97.06	1.030	0.16	0.324	0.465
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 4	Full	1	2412	19.06	20.50	1.393	97.06	1.030	-0.04	0.062	0.089
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4	Full	1	2412	19.06	20.50	1.393	97.06	1.030	0.02	0.263	0.377
55	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	Full	1	2412	19.06	20.50	1.393	97.06	1.030	0.07	0.502	**0.720**
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	Full	6	2437	19.01	20.50	1.409	97.06	1.030	0.11	0.485	0.704
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	Full	11	2462	18.68	20.50	1.521	97.06	1.030	0.03	0.454	0.711
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 4	Power level 2/3	1	2412	17.09	18.50	1.384	97.06	1.030	-0.04	0.199	0.284
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 4	Power level 2/3	1	2412	17.09	18.50	1.384	97.06	1.030	0.11	0.224	0.319
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 4	Power level 2/3	1	2412	17.09	18.50	1.384	97.06	1.030	0.16	0.045	0.064
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 4	Power level 2/3	1	2412	17.09	18.50	1.384	97.06	1.030	0.02	0.186	0.265
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	Power level 2/3	1	2412	17.09	18.50	1.384	97.06	1.030	-0.17	0.310	0.442
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	Power level 2/3	6	2437	17.06	18.50	1.393	97.06	1.030	-0.17	0.301	0.432
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 4	Power level 2/3	11	2462	16.73	18.50	1.503	97.06	1.030	-0.13	0.201	0.311
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 7	Full	1	2412	19.88	20.50	1.153	97.06	1.030	0.04	0.258	0.307
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 7	Full	1	2412	19.88	20.50	1.153	97.06	1.030	0.15	0.263	0.312
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 7	Full	1	2412	19.88	20.50	1.153	97.06	1.030	-0.05	0.031	0.037
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7	Full	1	2412	19.88	20.50	1.153	97.06	1.030	-0.04	0.475	0.564
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7	Full	1	2412	19.88	20.50	1.153	97.06	1.030	0.16	0.045	0.053
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7	Full	6	2437	19.33	20.50	1.309	97.06	1.030	-0.04	0.321	0.433
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7	Full	11	2462	18.55	20.50	1.567	97.06	1.030	0.13	0.298	0.481
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 7	Power level 2/3	1	2412	17.91	18.50	1.146	97.06	1.030	0.04	0.149	0.176
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 7	Power level 2/3	1	2412	17.91	18.50	1.146	97.06	1.030	0.16	0.155	0.183
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 7	Power level 2/3	1	2412	17.91	18.50	1.146	97.06	1.030	0.03	0.013	0.015
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7	Power level 2/3	1	2412	17.91	18.50	1.146	97.06	1.030	-0.17	0.246	0.290
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7	Power level 2/3	1	2412	17.91	18.50	1.146	97.06	1.030	0.04	0.020	0.024
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7	Power level 2/3	6	2437	17.36	18.50	1.300	97.06	1.030	0.03	0.202	0.271
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7	Power level 2/3	11	2462	16.58	18.50	1.556	97.06	1.030	0.02	0.219	0.351

<WLAN5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	802.11n-HT40 MCS0	Front	10mm	Ant 8	Full	46	5230	17.29	19.00	1.483	99.51	1.005	-0.18	0.095	0.142
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 8	Full	46	5230	17.29	19.00	1.483	99.51	1.005	-0.12	0.168	0.250
	WLAN5.2GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 8	Full	46	5230	17.29	19.00	1.483	99.51	1.005	-	Na	Na
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 8	Full	46	5230	17.29	19.00	1.483	99.51	1.005	-	Na	Na
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 8	Full	46	5230	17.29	19.00	1.483	99.51	1.005	-0.05	0.191	0.285
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 8	Full	38	5190	15.10	17.00	1.549	99.51	1.005	0.03	0.139	0.216
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 8	Power level 2/3	42	5210	13.05	15.00	1.567	99.06	1.009	-0.04	0.105	0.166
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 8	Power level 2/3	42	5210	13.05	15.00	1.567	99.06	1.009	0.15	0.095	0.150
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 8	Power level 2/3	42	5210	13.05	15.00	1.567	99.06	1.009	-	Na	Na
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 8	Power level 2/3	42	5210	13.05	15.00	1.567	99.06	1.009	-	Na	Na
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 8	Power level 2/3	42	5210	13.05	15.00	1.567	99.06	1.009	-0.04	0.141	0.223
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 9	Full	46	5230	17.38	19.00	1.452	99.51	1.005	-0.02	0.247	0.360
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 9	Full	46	5230	17.38	19.00	1.452	99.51	1.005	0.12	0.210	0.306
	WLAN5.2GHz	802.11n-HT40 MCS0	Left Side	10mm	Ant 9	Full	46	5230	17.38	19.00	1.452	99.51	1.005	-	Na	Na
56	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 9	Full	46	5230	17.38	19.00	1.452	99.51	1.005	-0.16	0.417	**0.609**
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 9	Full	46	5230	17.38	19.00	1.452	99.51	1.005	-	Na	Na
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 9	Full	38	5190	15.19	17.00	1.517	99.51	1.005	-0.16	0.297	0.453
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9	Power level 2/3	42	5210	13.33	15.00	1.469	99.06	1.009	-0.05	0.107	0.159
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9	Power level 2/3	42	5210	13.33	15.00	1.469	99.06	1.009	0.04	0.088	0.130
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 9	Power level 2/3	42	5210	13.33	15.00	1.469	99.06	1.009	-	Na	Na
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9	Power level 2/3	42	5210	13.33	15.00	1.469	99.06	1.009	-0.17	0.156	0.231
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9	Power level 2/3	42	5210	13.33	15.00	1.469	99.06	1.009	-	Na	Na
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 8	Full	155	5775	17.38	19.00	1.452	99.06	1.009	0.05	0.243	0.356
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 8	Full	155	5775	17.38	19.00	1.452	99.06	1.009	0.05	0.401	0.588
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 8	Full	155	5775	17.38	19.00	1.452	99.06	1.009	-0.04	0.141	0.207
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 8	Full	155	5775	17.38	19.00	1.452	99.06	1.009	0.14	0.158	0.231
57	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 8	Full	155	5775	17.38	19.00	1.452	99.06	1.009	0.06	0.451	**0.661**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 8	Power level 2/3	155	5775	14.40	16.00	1.445	99.06	1.009	0.05	0.127	0.185
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 8	Power level 2/3	155	5775	14.40	16.00	1.445	99.06	1.009	0.09	0.150	0.219
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 8	Power level 2/3	155	5775	14.40	16.00	1.445	99.06	1.009	0.05	0.057	0.083
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 8	Power level 2/3	155	5775	14.40	16.00	1.445	99.06	1.009	-0.05	0.061	0.089
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 8	Power level 2/3	155	5775	14.40	16.00	1.445	99.06	1.009	0.14	0.186	0.271
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9	Full	155	5775	17.52	19.00	1.406	99.06	1.009	-0.14	0.170	0.241
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9	Full	155	5775	17.52	19.00	1.406	99.06	1.009	0.12	0.110	0.156
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 9	Full	155	5775	17.52	19.00	1.406	99.06	1.009	-	Na	Na
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9	Full	155	5775	17.52	19.00	1.406	99.06	1.009	0.01	0.211	0.299
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9	Full	155	5775	17.52	19.00	1.406	99.06	1.009	0.13	0.101	0.143
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9	Power level 2/3	155	5775	14.55	16.00	1.396	99.06	1.009	0.06	0.102	0.144
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9	Power level 2/3	155	5775	14.55	16.00	1.396	99.06	1.009	0.05	0.075	0.106
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 9	Power level 2/3	155	5775	14.55	16.00	1.396	99.06	1.009	-	Na	Na
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9	Power level 2/3	155	5775	14.55	16.00	1.396	99.06	1.009	0.05	0.125	0.176
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9	Power level 2/3	155	5775	14.55	16.00	1.396	99.06	1.009	-0.04	0.041	0.058

18.3 Body Worn Accessory SAR

<GSM SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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)
58	GSM850	GPRS(4 Tx slots)	Front	15mm	Ant 0	DSI4/9/14	189	836.4	27.08	28.00	1.236	0.01	0.290	**0.358**
	GSM850	DTM Multi-slot class 9	Front	15mm	Ant 0	DSI4/9/14	189	836.4	24.55	24.98	1.104	0.09	0.211	0.233
	GSM850	GPRS(4 Tx slots)	Back	15mm	Ant 0	DSI4/9/14	189	836.4	27.08	28.00	1.236	0.14	0.201	0.248
	GSM850	GPRS(4 Tx slots)	Front	15mm	Ant 0	DSI4/9/14	128	824.2	27.03	28.00	1.250	-0.08	0.182	0.228
	GSM850	GPRS(4 Tx slots)	Front	15mm	Ant 0	DSI4/9/14	251	848.8	27.01	28.00	1.256	0.12	0.217	0.273
	GSM850	GPRS(4 Tx slots)	Front	15mm	Ant 1	DSI4/9/14	189	836.4	27.07	28.00	1.239	0.19	0.088	0.109
	GSM850	GPRS(4 Tx slots)	Back	15mm	Ant 1	DSI4/9/14	189	836.4	27.07	28.00	1.239	0.05	0.092	0.114
	GSM850	GPRS(4 Tx slots)	Back	15mm	Ant 1	DSI4/9/14	128	824.2	27.04	28.00	1.247	0.06	0.185	0.231
	GSM850	DTM Multi-slot class 9	Back	15mm	Ant 1	DSI4/9/14	128	824.2	24.40	24.98	1.143	0.01	0.136	0.155
	GSM850	GPRS(4 Tx slots)	Back	15mm	Ant 1	DSI4/9/14	251	848.8	26.95	28.00	1.274	0.13	0.106	0.135
	GSM1900	GPRS(4 Tx slots)	Front	15mm	Ant 2	DSI4/9/14	661	1880	24.83	25.00	1.040	0.03	0.163	0.170
	GSM1900	GPRS(4 Tx slots)	Back	15mm	Ant 2	DSI4/9/14	661	1880	24.83	25.00	1.040	0.05	0.169	0.176
	GSM1900	GPRS(4 Tx slots)	Back	15mm	Ant 2	DSI4/9/14	512	1850.2	24.75	25.00	1.059	-0.05	0.136	0.144
	GSM1900	GPRS(4 Tx slots)	Back	15mm	Ant 2	DSI4/9/14	810	1909.8	24.57	25.00	1.104	0.01	0.318	0.351
	GSM1900	DTM Multi-slot class 9	Back	15mm	Ant 2	DSI4/9/14	810	1909.8	21.00	21.98	1.253	-0.09	0.277	0.347
	GSM1900	GPRS(4 Tx slots)	Front	15mm	Ant 3	DSI4/9/14	512	1850.2	24.30	25.00	1.175	0.06	0.224	0.263
59	GSM1900	GPRS(4 Tx slots)	Back	15mm	Ant 3	DSI4/9/14	512	1850.2	24.30	25.00	1.175	-0.12	0.378	**0.444**
	GSM1900	DTM Multi-slot class 9	Back	15mm	Ant 3	DSI4/9/14	512	1850.2	20.74	21.98	1.330	0.04	0.301	0.400
	GSM1900	GPRS(4 Tx slots)	Back	15mm	Ant 3	DSI4/9/14	661	1880	24.15	25.00	1.216	0.05	0.244	0.297
	GSM1900	GPRS(4 Tx slots)	Back	15mm	Ant 3	DSI4/9/14	810	1909.8	24.01	25.00	1.256	-0.09	0.208	0.261

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	RMC 12.2Kbps	Front	15mm	Ant 0	DSI4/9/14	4182	836.4	24.03	25.00	1.250	0.18	0.272	0.340
	WCDMA V	RMC 12.2Kbps	Back	15mm	Ant 0	DSI4/9/14	4182	836.4	24.03	25.00	1.250	-0.01	0.246	0.308
	WCDMA V	RMC 12.2Kbps	Front	15mm	Ant 0	DSI4/9/14	4132	826.4	23.98	25.00	1.265	-0.19	0.180	0.228
60	WCDMA V	RMC 12.2Kbps	Front	15mm	Ant 0	DSI4/9/14	4233	846.6	23.97	25.00	1.268	-0.02	0.350	**0.444**
	WCDMA V	RMC 12.2Kbps	Front	15mm	Ant 1	DSI4/9/14	4182	836.4	24.11	25.00	1.227	0.09	0.127	0.156
	WCDMA V	RMC 12.2Kbps	Back	15mm	Ant 1	DSI4/9/14	4182	836.4	24.11	25.00	1.227	-0.05	0.135	0.166
	WCDMA V	RMC 12.2Kbps	Back	15mm	Ant 1	DSI4/9/14	4132	826.4	24.03	25.00	1.250	-0.18	0.141	0.176
	WCDMA V	RMC 12.2Kbps	Back	15mm	Ant 1	DSI4/9/14	4233	846.6	24.01	25.00	1.256	-0.05	0.149	0.187
	WCDMA IV	RMC 12.2Kbps	Front	15mm	Ant 2	DSI4/9/14	1413	1732.6	24.63	25.00	1.089	0.03	0.349	0.380
	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant 2	DSI4/9/14	1413	1732.6	24.63	25.00	1.089	0.01	0.598	0.651
	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant 2	DSI4/9/14	1312	1712.4	24.49	25.00	1.125	0	0.329	0.370
	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant 2	DSI4/9/14	1513	1752.6	24.53	25.00	1.114	0.01	0.334	0.372
	WCDMA IV	RMC 12.2Kbps	Front	15mm	Ant 3	DSI4/9/14	1413	1732.6	24.19	25.00	1.205	-0.14	0.499	0.601
61	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4/9/14	1413	1732.6	24.19	25.00	1.205	-0.16	0.600	**0.723**
	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4/9/14	1312	1712.4	24.08	25.00	1.236	-0.07	0.507	0.627
	WCDMA IV	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4/9/14	1513	1752.6	24.03	25.00	1.250	0.1	0.487	0.609
	WCDMA II	RMC 12.2Kbps	Front	15mm	Ant 2	DSI4/9/14	9400	1880	24.65	25.00	1.084	-0.13	0.364	0.395
	WCDMA II	RMC 12.2Kbps	Back	15mm	Ant 2	DSI4/9/14	9400	1880	24.65	25.00	1.084	0.16	0.373	0.404
	WCDMA II	RMC 12.2Kbps	Back	15mm	Ant 2	DSI4/9/14	9262	1852.4	24.59	25.00	1.099	0.15	0.387	0.425
62	WCDMA II	RMC 12.2Kbps	Back	15mm	Ant 2	DSI4/9/14	9538	1907.6	24.61	25.00	1.094	0.19	0.584	**0.639**
	WCDMA II	RMC 12.2Kbps	Front	15mm	Ant 3	DSI4/9/14	9400	1880	24.25	25.00	1.189	0.13	0.347	0.412
	WCDMA II	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4/9/14	9400	1880	24.25	25.00	1.189	0.04	0.454	0.540
	WCDMA II	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4/9/14	9262	1852.4	24.19	25.00	1.205	0.04	0.514	0.619
	WCDMA II	RMC 12.2Kbps	Back	15mm	Ant 3	DSI4/9/14	9538	1907.6	24.21	25.00	1.199	-0.07	0.415	0.498

<LTE FDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	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)
63	LTE Band 71	20M	QPSK	1	0	Front	15mm	Ant 0	DSI4/9/14	133297	680.5	23.95	25.00	1.274	0.19	0.171	**0.218**
	LTE Band 71	20M	QPSK	1	0	Back	15mm	Ant 0	DSI4/9/14	133297	680.5	23.95	25.00	1.274	-0.06	0.149	0.190
	LTE Band 71	20M	QPSK	50	0	Front	15mm	Ant 0	DSI4/9/14	133297	680.5	22.98	24.00	1.265	-0.08	0.153	0.194
	LTE Band 71	20M	QPSK	50	0	Back	15mm	Ant 0	DSI4/9/14	133297	680.5	22.98	24.00	1.265	-0.14	0.142	0.180
	LTE Band 71	20M	QPSK	1	0	Front	15mm	Ant 1	DSI4/9/14	133297	680.5	24.08	25.00	1.236	-0.17	0.095	0.117
	LTE Band 71	20M	QPSK	1	0	Back	15mm	Ant 1	DSI4/9/14	133297	680.5	24.08	25.00	1.236	0.04	0.107	0.132
	LTE Band 71	20M	QPSK	50	0	Front	15mm	Ant 1	DSI4/9/14	133297	680.5	23.04	24.00	1.247	0.17	0.111	0.138
	LTE Band 71	20M	QPSK	50	0	Back	15mm	Ant 1	DSI4/9/14	133297	680.5	23.04	24.00	1.247	-0.12	0.121	0.151
64	LTE Band 12	10M	QPSK	1	0	Front	15mm	Ant 0	DSI4/9/14	23095	707.5	23.65	25.00	1.365	-0.07	0.198	**0.270**
	LTE Band 12	10M	QPSK	1	0	Back	15mm	Ant 0	DSI4/9/14	23095	707.5	23.65	25.00	1.365	0.13	0.180	0.246
	LTE Band 12	10M	QPSK	25	0	Front	15mm	Ant 0	DSI4/9/14	23095	707.5	22.63	24.00	1.371	0.13	0.183	0.251
	LTE Band 12	10M	QPSK	25	0	Back	15mm	Ant 0	DSI4/9/14	23095	707.5	22.63	24.00	1.371	-0.05	0.160	0.219
	LTE Band 12	10M	QPSK	1	0	Front	15mm	Ant 1	DSI4/9/14	23095	707.5	23.81	25.00	1.315	-0.02	0.162	0.213
	LTE Band 12	10M	QPSK	1	0	Back	15mm	Ant 1	DSI4/9/14	23095	707.5	23.81	25.00	1.315	-0.13	0.177	0.233
	LTE Band 12	10M	QPSK	25	0	Front	15mm	Ant 1	DSI4/9/14	23095	707.5	22.78	24.00	1.324	-0.12	0.145	0.192
	LTE Band 12	10M	QPSK	25	0	Back	15mm	Ant 1	DSI4/9/14	23095	707.5	22.78	24.00	1.324	-0.13	0.153	0.203
65	LTE Band 13	10M	QPSK	1	0	Front	15mm	Ant 0	DSI4/9/14	23230	782	23.55	25.00	1.396	-0.15	0.258	**0.360**
	LTE Band 13	10M	QPSK	1	0	Back	15mm	Ant 0	DSI4/9/14	23230	782	23.55	25.00	1.396	0.17	0.229	0.320
	LTE Band 13	10M	QPSK	25	0	Front	15mm	Ant 0	DSI4/9/14	23230	782	22.49	24.00	1.416	-0.07	0.215	0.304
	LTE Band 13	10M	QPSK	25	0	Back	15mm	Ant 0	DSI4/9/14	23230	782	22.49	24.00	1.416	-0.12	0.190	0.269
	LTE Band 13	10M	QPSK	1	0	Front	15mm	Ant 1	DSI4/9/14	23230	782	23.94	25.00	1.276	0.18	0.154	0.197
	LTE Band 13	10M	QPSK	1	0	Back	15mm	Ant 1	DSI4/9/14	23230	782	23.94	25.00	1.276	0.03	0.179	0.228
	LTE Band 13	10M	QPSK	25	0	Front	15mm	Ant 1	DSI4/9/14	23230	782	22.82	24.00	1.312	0.05	0.127	0.167
	LTE Band 13	10M	QPSK	25	0	Back	15mm	Ant 1	DSI4/9/14	23230	782	22.82	24.00	1.312	0.05	0.139	0.182
	LTE Band 26	15M	QPSK	1	0	Front	15mm	Ant 0	DSI4/9/14	26865	831.5	23.54	25.00	1.400	0.18	0.154	0.216
	LTE Band 26	15M	QPSK	1	0	Back	15mm	Ant 0	DSI4/9/14	26865	831.5	23.54	25.00	1.400	-0.08	0.139	0.195
	LTE Band 26	15M	QPSK	1	0	Front	15mm	Ant 0	DSI4/9/14	26765	821.5	23.47	25.00	1.422	-0.03	0.096	0.137
66	LTE Band 26	15M	QPSK	1	0	Front	15mm	Ant 0	DSI4/9/14	26965	841.5	23.48	25.00	1.419	-0.06	0.249	**0.353**
	LTE Band 26	15M	QPSK	36	0	Front	15mm	Ant 0	DSI4/9/14	26865	831.5	22.48	24.00	1.419	-0.15	0.108	0.153
	LTE Band 26	15M	QPSK	36	0	Back	15mm	Ant 0	DSI4/9/14	26865	831.5	22.48	24.00	1.419	-0.08	0.097	0.138
	LTE Band 26	15M	QPSK	1	0	Front	15mm	Ant 1	DSI4/9/14	26865	831.5	23.86	25.00	1.300	0.07	0.116	0.151
	LTE Band 26	15M	QPSK	1	0	Back	15mm	Ant 1	DSI4/9/14	26865	831.5	23.86	25.00	1.300	-0.05	0.130	0.169
	LTE Band 26	15M	QPSK	1	0	Back	15mm	Ant 1	DSI4/9/14	26765	821.5	23.67	25.00	1.358	0.09	0.183	0.249
	LTE Band 26	15M	QPSK	1	0	Back	15mm	Ant 1	DSI4/9/14	26965	841.5	23.80	25.00	1.318	-0.05	0.189	0.249
	LTE Band 26	15M	QPSK	36	0	Front	15mm	Ant 1	DSI4/9/14	26865	831.5	22.84	24.00	1.306	0.04	0.092	0.120
	LTE Band 26	15M	QPSK	36	0	Back	15mm	Ant 1	DSI4/9/14	26865	831.5	22.84	24.00	1.306	-0.19	0.103	0.135
	LTE Band 66	20M	QPSK	1	0	Front	15mm	Ant 2	DSI4/9/14	132322	1745	24.13	25.00	1.222	-0.16	0.302	0.369
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	132322	1745	24.13	25.00	1.222	-0.12	0.504	0.616
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	132072	1720	24.08	25.00	1.236	0.17	0.284	0.351
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	132572	1770	24.08	25.00	1.236	0.16	0.303	0.374
	LTE Band 66	20M	QPSK	50	0	Front	15mm	Ant 2	DSI4/9/14	132322	1745	23.03	24.00	1.250	0.01	0.237	0.296
	LTE Band 66	20M	QPSK	50	0	Back	15mm	Ant 2	DSI4/9/14	132322	1745	23.03	24.00	1.250	-0.09	0.247	0.309
	LTE Band 66	20M	QPSK	1	0	Front	15mm	Ant 3	DSI4/9/14	132322	1745	23.93	25.00	1.279	-0.19	0.403	0.516
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	132322	1745	23.93	25.00	1.279	0.12	0.497	0.636
67	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	132072	1720	23.77	25.00	1.327	0.09	0.580	**0.770**
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	132572	1770	23.83	25.00	1.309	-0.18	0.491	0.643
	LTE Band 66	20M	QPSK	50	0	Front	15mm	Ant 3	DSI4/9/14	132322	1745	22.80	24.00	1.318	0.17	0.323	0.426
	LTE Band 66	20M	QPSK	50	0	Back	15mm	Ant 3	DSI4/9/14	132322	1745	22.80	24.00	1.318	0.14	0.396	0.522
	LTE Band 66	20M	QPSK	1	0	Front	15mm	Ant 5	DSI4/9/14	132322	1745	24.29	25.00	1.178	0.09	0.010	0.012
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	132322	1745	24.29	25.00	1.178	0.09	0.023	0.027
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	132072	1720	24.27	25.00	1.183	0.06	0.021	0.025
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	132572	1770	24.25	25.00	1.189	-0.05	0.020	0.024

	LTE Band 66	20M	QPSK	50	0	Front	15mm	Ant 5	DSI4/9/14	132322	1745	23.27	24.00	1.183	0.01	0.009	0.011
	LTE Band 66	20M	QPSK	50	0	Back	15mm	Ant 5	DSI4/9/14	132322	1745	23.27	24.00	1.183	-0.1	0.021	0.025
	LTE Band 66	20M	QPSK	1	0	Front	15mm	Ant 6	DSI4/9/14	132322	1745	22.41	23.00	1.146	0.03	0.004	0.005
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	132322	1745	22.41	23.00	1.146	0.19	0.011	0.013
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	132072	1720	22.38	23.00	1.153	0.05	0.009	0.010
	LTE Band 66	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	132572	1770	22.37	23.00	1.156	0.02	0.010	0.012
	LTE Band 66	20M	QPSK	50	0	Front	15mm	Ant 6	DSI4/9/14	132322	1745	22.39	23.00	1.151	0.01	0.003	0.003
	LTE Band 66	20M	QPSK	50	0	Back	15mm	Ant 6	DSI4/9/14	132322	1745	22.39	23.00	1.151	-0.05	0.000	0.000
	LTE Band 25	20M	QPSK	1	0	Front	15mm	Ant 2	DSI4/9/14	26340	1880	24.15	25.00	1.216	-0.17	0.326	0.396
	LTE Band 25	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	26340	1880	24.15	25.00	1.216	0.18	0.333	0.405
	LTE Band 25	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	26140	1860	24.13	25.00	1.222	0.02	0.328	0.401
68	LTE Band 25	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	26590	1905	24.09	25.00	1.233	-0.19	0.612	**0.755**
	LTE Band 25	20M	QPSK	50	0	Front	15mm	Ant 2	DSI4/9/14	26340	1880	23.04	24.00	1.247	0.04	0.267	0.333
	LTE Band 25	20M	QPSK	50	0	Back	15mm	Ant 2	DSI4/9/14	26340	1880	23.04	24.00	1.247	-0.12	0.292	0.364
	LTE Band 25	20M	QPSK	1	0	Front	15mm	Ant 3	DSI4/9/14	26340	1880	23.91	25.00	1.285	0	0.290	0.373
	LTE Band 25	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	26340	1880	23.91	25.00	1.285	0.14	0.379	0.487
	LTE Band 25	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	26140	1860	23.83	25.00	1.309	-0.02	0.471	0.617
	LTE Band 25	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	26590	1905	23.89	25.00	1.291	0.01	0.396	0.511
	LTE Band 25	20M	QPSK	50	0	Front	15mm	Ant 3	DSI4/9/14	26340	1880	22.85	24.00	1.303	0.19	0.300	0.391
	LTE Band 25	20M	QPSK	50	0	Back	15mm	Ant 3	DSI4/9/14	26340	1880	22.85	24.00	1.303	0.15	0.388	0.506
	LTE Band 30	10M	QPSK	1	0	Front	15mm	Ant 2	DSI4/9/14	27710	2310	24.32	25.00	1.169	-0.07	0.471	0.551
	LTE Band 30	10M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	27710	2310	24.32	25.00	1.169	0.18	0.489	0.572
	LTE Band 30	10M	QPSK	25	0	Front	15mm	Ant 2	DSI4/9/14	27710	2310	23.25	24.00	1.189	0.09	0.377	0.448
	LTE Band 30	10M	QPSK	25	0	Back	15mm	Ant 2	DSI4/9/14	27710	2310	23.25	24.00	1.189	0.1	0.401	0.477
	LTE Band 30	10M	QPSK	1	0	Front	15mm	Ant 3	DSI4/9/14	27710	2310	24.16	25.00	1.213	-0.16	0.395	0.479
69	LTE Band 30	10M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	27710	2310	24.16	25.00	1.213	-0.18	0.546	**0.663**
	LTE Band 30	10M	QPSK	25	0	Front	15mm	Ant 3	DSI4/9/14	27710	2310	23.08	24.00	1.236	0.1	0.310	0.383
	LTE Band 30	10M	QPSK	25	0	Back	15mm	Ant 3	DSI4/9/14	27710	2310	23.08	24.00	1.236	0.04	0.355	0.439
	LTE Band 7	20M	QPSK	1	0	Front	15mm	Ant 2	DSI4/9/14	21100	2535	23.65	24.20	1.135	0.15	0.406	0.461
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	21100	2535	23.65	24.20	1.135	-0.16	0.425	0.482
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	20850	2510	23.42	24.20	1.197	0.06	0.440	0.527
70	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	21350	2560	23.54	24.20	1.164	0.01	0.686	**0.799**
	LTE Band 7C	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	21350 21152	2560 2540.2	23.51	24.20	1.172	0.15	0.588	0.689
	LTE Band 7	20M	QPSK	50	0	Front	15mm	Ant 2	DSI4/9/14	21100	2535	22.63	23.20	1.140	0	0.321	0.366
	LTE Band 7	20M	QPSK	50	0	Back	15mm	Ant 2	DSI4/9/14	21100	2535	22.63	23.20	1.140	0.1	0.340	0.388
	LTE Band 7	20M	QPSK	1	0	Front	15mm	Ant 3	DSI4/9/14	21100	2535	23.28	24.20	1.236	0.15	0.284	0.351
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	21100	2535	23.28	24.20	1.236	0	0.333	0.412
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	20850	2510	23.25	24.20	1.245	-0.11	0.324	0.403
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	21350	2560	23.24	24.20	1.247	0.14	0.576	0.718
	LTE Band 7C	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	21350 21152	2560 2540.2	23.02	24.20	1.312	-0.05	0.499	0.655
	LTE Band 7	20M	QPSK	50	0	Front	15mm	Ant 3	DSI4/9/14	21100	2535	22.29	23.20	1.233	-0.18	0.222	0.274
	LTE Band 7	20M	QPSK	50	0	Back	15mm	Ant 3	DSI4/9/14	21100	2535	22.29	23.20	1.233	0.03	0.268	0.330
	LTE Band 7	20M	QPSK	1	0	Front	15mm	Ant 5	DSI4/9/14	21100	2535	23.17	24.20	1.268	-0.05	0.203	0.257
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	21100	2535	23.17	24.20	1.268	0.06	0.261	0.331
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	20850	2510	23.10	24.20	1.288	-0.02	0.240	0.309
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	21350	2560	23.08	24.20	1.294	0.07	0.365	0.472
	LTE Band 7	20M	QPSK	50	0	Front	15mm	Ant 5	DSI4/9/14	21100	2535	22.33	23.20	1.222	-0.19	0.167	0.204
	LTE Band 7	20M	QPSK	50	0	Back	15mm	Ant 5	DSI4/9/14	21100	2535	22.33	23.20	1.222	0.09	0.222	0.271
	LTE Band 7	20M	QPSK	1	0	Front	15mm	Ant 6	DSI4/9/14	21100	2535	20.88	22.20	1.355	0.13	0.162	0.220
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	21100	2535	20.88	22.20	1.355	-0.19	0.241	0.327
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	20850	2510	20.74	22.20	1.400	-0.18	0.217	0.304
	LTE Band 7	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	21350	2560	20.77	22.20	1.390	-0.11	0.230	0.320
	LTE Band 7	20M	QPSK	50	0	Front	15mm	Ant 6	DSI4/9/14	21100	2535	20.83	22.20	1.371	-0.08	0.153	0.210
	LTE Band 7	20M	QPSK	50	0	Back	15mm	Ant 6	DSI4/9/14	21100	2535	20.83	22.20	1.371	0.1	0.236	0.324

<LTE TDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	LTE Band 41	20M	QPSK	1	0	Front	15mm	Ant 2	DSI4/9/14	40185	2549.5	24.21	25.00	1.199	62.9	1.006	-0.02	0.280	0.338
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	40185	2549.5	24.21	25.00	1.199	62.9	1.006	-0.02	0.400	0.483
	LTE Band 41C	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	40185 40383	2549.5 2569.3	24.08	25.00	1.236	62.9	1.006	0.09	0.360	0.448
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	39750	2506	24.19	25.00	1.205	62.9	1.006	0.13	0.284	0.344
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	40620	2593	24.14	25.00	1.219	62.9	1.006	0.01	0.303	0.372
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	41055	2636.5	24.06	25.00	1.242	62.9	1.006	-0.1	0.304	0.380
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	41490	2680	24.11	25.00	1.227	62.9	1.006	0.16	0.304	0.375
	LTE Band 41	20M	QPSK	50	0	Front	15mm	Ant 2	DSI4/9/14	40185	2549.5	23.12	24.00	1.225	62.9	1.006	0.19	0.229	0.282
	LTE Band 41	20M	QPSK	50	0	Back	15mm	Ant 2	DSI4/9/14	40185	2549.5	23.12	24.00	1.225	62.9	1.006	-0.05	0.247	0.304
	LTE Band 41	20M	QPSK	1	0	Front	15mm	Ant 3	DSI4/9/14	40185	2549.5	24.44	25.00	1.138	62.9	1.006	0.13	0.212	0.243
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	40185	2549.5	24.44	25.00	1.138	62.9	1.006	0.09	0.264	0.302
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	39750	2506	24.13	25.00	1.222	62.9	1.006	0.14	0.246	0.302
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	40620	2593	24.23	25.00	1.194	62.9	1.006	-0.17	0.273	0.328
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	41055	2636.5	24.23	25.00	1.194	62.9	1.006	0.07	0.275	0.330
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	41490	2680	23.94	25.00	1.276	62.9	1.006	0.08	0.383	0.492
	LTE Band 41C	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	40185 40383	2549.5 2569.3	23.88	25.00	1.294	62.9	1.006	0.17	0.315	0.410
	LTE Band 41	20M	QPSK	50	0	Front	15mm	Ant 3	DSI4/9/14	40185	2549.5	23.26	24.00	1.186	62.9	1.006	-0.18	0.173	0.206
	LTE Band 41	20M	QPSK	50	0	Back	15mm	Ant 3	DSI4/9/14	40185	2549.5	23.26	24.00	1.186	62.9	1.006	0.11	0.215	0.256
	LTE Band 41(HPUE)	20M	QPSK	1	0	Front	15mm	Ant 2	DSI4/9/14	40185	2549.5	26.27	27.00	1.183	42.9	1.009	0.01	0.288	0.344
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	40185	2549.5	26.27	27.00	1.183	42.9	1.009	0.17	0.297	0.355
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	39750	2506	26.26	27.00	1.186	42.9	1.009	0.09	0.316	0.378
71	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	40620	2593	25.93	27.00	1.279	42.9	1.009	-0.19	0.476	**0.614**
	LTE Band 41C(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	40185 40383	2549.5 2569.3	25.57	27.00	1.390	42.9	1.009	0.15	0.402	0.564
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	41055	2636.5	26.11	27.00	1.227	42.9	1.009	-0.11	0.314	0.389
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 2	DSI4/9/14	41490	2680	26.11	27.00	1.227	42.9	1.009	-0.09	0.304	0.376
	LTE Band 41(HPUE)	20M	QPSK	50	0	Front	15mm	Ant 2	DSI4/9/14	40185	2549.5	25.25	26.00	1.189	42.9	1.009	0.14	0.239	0.287
	LTE Band 41(HPUE)	20M	QPSK	50	0	Back	15mm	Ant 2	DSI4/9/14	40185	2549.5	25.25	26.00	1.189	42.9	1.009	-0.03	0.247	0.296
	LTE Band 41(HPUE)	20M	QPSK	1	0	Front	15mm	Ant 3	DSI4/9/14	40185	2549.5	26.12	27.00	1.225	42.9	1.009	-0.08	0.221	0.273
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	40185	2549.5	26.12	27.00	1.225	42.9	1.009	-0.03	0.269	0.332
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	39750	2506	25.93	27.00	1.279	42.9	1.009	-0.04	0.245	0.316
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	40620	2593	26.09	27.00	1.233	42.9	1.009	0.16	0.266	0.331
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	41055	2636.5	26.05	27.00	1.245	42.9	1.009	-0.1	0.293	0.368
	LTE Band 41(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	41490	2680	25.95	27.00	1.274	42.9	1.009	0.1	0.401	0.515
	LTE Band 41C(HPUE)	20M	QPSK	1	0	Back	15mm	Ant 3	DSI4/9/14	41490	2680	25.60	27.00	1.380	42.9	1.009	0.03	0.345	0.481
	LTE Band 41(HPUE)	20M	QPSK	50	0	Front	15mm	Ant 3	DSI4/9/14	40185	2549.5	25.09	26.00	1.233	42.9	1.009	0.06	0.185	0.230
	LTE Band 41(HPUE)	20M	QPSK	50	0	Back	15mm	Ant 3	DSI4/9/14	40185	2549.5	25.09	26.00	1.233	42.9	1.009	0.18	0.224	0.279
	LTE Band 41	20M	QPSK	1	0	Front	15mm	Ant 5	DSI4/9/14	40185	2549.5	23.58	24.50	1.236	62.9	1.006	-0.1	0.114	0.142
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	40185	2549.5	23.58	24.50	1.236	62.9	1.006	-0.02	0.137	0.170
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	39750	2506	23.44	24.50	1.276	62.9	1.006	0.18	0.139	0.178
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	40620	2593	23.25	24.50	1.334	62.9	1.006	0.18	0.155	0.208
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	41055	2636.5	23.36	24.50	1.300	62.9	1.006	-0.09	0.144	0.188
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	41490	2680	23.27	24.50	1.327	62.9	1.006	0.15	0.134	0.179
	LTE Band 41	20M	QPSK	50	0	Front	15mm	Ant 5	DSI4/9/14	40185	2549.5	22.97	24.00	1.268	62.9	1.006	-0.16	0.105	0.134
	LTE Band 41	20M	QPSK	50	0	Back	15mm	Ant 5	DSI4/9/14	40185	2549.5	22.97	24.00	1.268	62.9	1.006	-0.15	0.145	0.185
	LTE Band 41	20M	QPSK	1	0	Front	15mm	Ant 6	DSI4/9/14	40185	2549.5	23.64	24.50	1.219	62.9	1.006	0.13	0.196	0.240
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	40185	2549.5	23.64	24.50	1.219	62.9	1.006	0.17	0.443	0.543
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	39750	2506	23.46	24.50	1.271	62.9	1.006	0.06	0.320	0.409
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	40620	2593	23.50	24.50	1.259	62.9	1.006	-0.05	0.315	0.399
	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	41055	2636.5	23.39	24.50	1.291	62.9	1.006	-0.17	0.288	0.374

	LTE Band 41	20M	QPSK	1	0	Back	15mm	Ant 6	DSI4/9/14	41490	2680	23.49	24.50	1.262	62.9	1.006	0.05	0.270	0.343
	LTE Band 41	20M	QPSK	50	0	Front	15mm	Ant 6	DSI4/9/14	40185	2549.5	23.06	24.50	1.393	62.9	1.006	0.07	0.227	0.318
	LTE Band 41	20M	QPSK	50	0	Back	15mm	Ant 6	DSI4/9/14	40185	2549.5	23.06	24.50	1.393	62.9	1.006	0.15	0.178	0.249
	LTE Band 48	20M	QPSK	1	0	Front	15mm	Ant 5	DSI4/9/14	55830	3609	24.15	25.00	1.216	62.9	1.006	0	0.223	0.273
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	55830	3609	24.15	25.00	1.216	62.9	1.006	0.02	0.280	0.343
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	55340	3560	24.04	25.00	1.247	62.9	1.006	-0.1	0.462	0.580
	LTE Band 48C	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	55830 55632	3609 3589.2	23.78	25.00	1.324	62.9	1.006	0.1	0.411	0.548
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	56150	3641	24.07	25.00	1.239	62.9	1.006	0.16	0.258	0.322
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 5	DSI4/9/14	56640	3690	23.98	25.00	1.265	62.9	1.006	-0.03	0.230	0.293
	LTE Band 48	20M	QPSK	50	0	Front	15mm	Ant 5	DSI4/9/14	55830	3609	23.26	24.00	1.186	62.9	1.006	-0.06	0.188	0.224
	LTE Band 48	20M	QPSK	50	0	Back	15mm	Ant 5	DSI4/9/14	55830	3609	23.26	24.00	1.186	62.9	1.006	-0.05	0.274	0.327
	LTE Band 48	20M	QPSK	1	0	Front	15mm	Ant 10	DSI4/9/14	55830	3609	24.09	25.00	1.233	62.9	1.006	0.16	0.083	0.103
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 10	DSI4/9/14	55830	3609	24.09	25.00	1.233	62.9	1.006	0.11	0.445	0.552
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 10	DSI4/9/14	55340	3560	23.96	25.00	1.271	62.9	1.006	0.07	0.435	0.556
72	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 10	DSI4/9/14	56150	3641	23.94	25.00	1.276	62.9	1.006	0.09	0.525	**0.674**
	LTE Band 48C	20M	QPSK	1	0	Back	15mm	Ant 10	DSI4/9/14	55830 55632	3609 3589.2	23.71	25.00	1.346	62.9	1.006	0.05	0.465	0.630
	LTE Band 48	20M	QPSK	1	0	Back	15mm	Ant 10	DSI4/9/14	56640	3690	24.07	25.00	1.239	62.9	1.006	-0.12	0.420	0.523
	LTE Band 48	20M	QPSK	50	0	Front	15mm	Ant 10	DSI4/9/14	55830	3609	23.23	24.00	1.194	62.9	1.006	0.02	0.072	0.086
	LTE Band 48	20M	QPSK	50	0	Back	15mm	Ant 10	DSI4/9/14	55830	3609	23.23	24.00	1.194	62.9	1.006	-0.16	0.353	0.424

<5GNR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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	20M	QPSK	1	1	DFT-15	Front	15mm	Ant0	DSI4/9/14	136100	680.5	24.00	25.20	1.318	0.14	0.166	0.219
	N71	20M	QPSK	1	1	DFT-15	Back	15mm	Ant0	DSI4/9/14	136100	680.5	24.00	25.20	1.318	-0.12	0.151	0.199
73	N71	20M	QPSK	50	28	DFT-15	Front	15mm	Ant0	DSI4/9/14	136100	680.5	23.58	25.20	1.452	0.02	0.230	**0.334**
	N71	20M	QPSK	50	28	DFT-15	Back	15mm	Ant0	DSI4/9/14	136100	680.5	23.58	25.20	1.452	-0.03	0.214	0.311
	N71	20M	QPSK	1	1	DFT-15	Front	15mm	Ant1	DSI4/9/14	136100	680.5	24.13	25.20	1.279	-0.08	0.114	0.146
	N71	20M	QPSK	1	1	DFT-15	Back	15mm	Ant1	DSI4/9/14	136100	680.5	24.13	25.20	1.279	0.07	0.124	0.159
	N71	20M	QPSK	50	28	DFT-15	Front	15mm	Ant1	DSI4/9/14	136100	680.5	23.99	25.20	1.321	-0.11	0.156	0.206
	N71	20M	QPSK	50	28	DFT-15	Back	15mm	Ant1	DSI4/9/14	136100	680.5	23.99	25.20	1.321	0.13	0.153	0.202
	N5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant0	DSI4/9/14	167300	836.5	23.44	24.70	1.337	0.18	0.206	0.275
	N5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant0	DSI4/9/14	167300	836.5	23.44	24.70	1.337	-0.15	0.178	0.238
74	N5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant0	DSI4/9/14	167300	836.5	23.31	24.70	1.377	-0.02	0.279	**0.384**
	N5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant0	DSI4/9/14	167300	836.5	23.31	24.70	1.377	-0.15	0.214	0.295
	N5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant1	DSI4/9/14	167300	836.5	23.45	24.70	1.334	0.09	0.086	0.115
	N5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant1	DSI4/9/14	167300	836.5	23.45	24.70	1.334	-0.12	0.094	0.125
	N5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant1	DSI4/9/14	167300	836.5	23.30	24.70	1.380	-0.14	0.096	0.133
	N5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant1	DSI4/9/14	167300	836.5	23.30	24.70	1.380	0.05	0.120	0.166
	N66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant2	DSI4/9/14	349000	1745	24.31	25.20	1.227	-0.02	0.284	0.349
	N66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant2	DSI4/9/14	349000	1745	24.31	25.20	1.227	-0.01	0.318	0.390
	N66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant2	DSI4/9/14	349000	1745	24.10	25.20	1.288	0.04	0.305	0.393
	N66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant2	DSI4/9/14	349000	1745	24.10	25.20	1.288	0.14	0.403	0.519
	N66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant3	DSI4/9/14	349000	1745	24.15	25.20	1.274	-0.12	0.437	0.557
	N66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant3	DSI4/9/14	349000	1745	24.15	25.20	1.274	-0.06	0.486	0.619
	N66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant3	DSI4/9/14	349000	1745	23.89	25.20	1.352	0.16	0.420	0.568
75	N66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant3	DSI4/9/14	349000	1745	23.89	25.20	1.352	0.02	0.577	**0.780**
	N66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant5	DSI4/9/14	349000	1745	23.97	25.20	1.327	0.05	0.009	0.012
	N66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant5	DSI4/9/14	349000	1745	23.97	25.20	1.327	0.09	0.023	0.031
	N66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant5	DSI4/9/14	349000	1745	23.89	25.20	1.352	-0.05	0.010	0.014
	N66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant5	DSI4/9/14	349000	1745	23.89	25.20	1.352	0.12	0.029	0.039
	N66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant6	DSI4/9/14	349000	1745	22.22	23.20	1.253	0.06	0.003	0.004
	N66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant6	DSI4/9/14	349000	1745	22.22	23.20	1.253	0.02	0.016	0.020
	N66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant6	DSI4/9/14	349000	1745	22.06	23.20	1.300	0.06	0.004	0.005
	N66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant6	DSI4/9/14	349000	1745	22.06	23.20	1.300	0.05	0.018	0.024
	N25	40M	QPSK	1	1	DFT-15	Front	15mm	Ant2	DSI4/9/14	376500	1882.5	23.97	25.20	1.327	-0.17	0.294	0.390
	N25	40M	QPSK	1	1	DFT-15	Back	15mm	Ant2	DSI4/9/14	376500	1882.5	23.97	25.20	1.327	-0.11	0.307	0.408
	N25	40M	QPSK	108	54	DFT-15	Front	15mm	Ant2	DSI4/9/14	376500	1882.5	23.72	25.20	1.406	-0.09	0.299	0.420
	N25	40M	QPSK	108	54	DFT-15	Back	15mm	Ant2	DSI4/9/14	376500	1882.5	23.72	25.20	1.406	0.13	0.432	0.607
	N25	40M	QPSK	1	1	DFT-15	Front	15mm	Ant3	DSI4/9/14	376500	1882.5	24.21	25.20	1.256	-0.01	0.427	0.536
	N25	40M	QPSK	1	1	DFT-15	Back	15mm	Ant3	DSI4/9/14	376500	1882.5	24.21	25.20	1.256	0.03	0.524	0.658
	N25	40M	QPSK	108	54	DFT-15	Front	15mm	Ant3	DSI4/9/14	376500	1882.5	23.78	25.20	1.387	0.04	0.390	0.541
76	N25	40M	QPSK	108	54	DFT-15	Back	15mm	Ant3	DSI4/9/14	376500	1882.5	23.78	25.20	1.387	0.1	0.506	**0.702**
	N30	10M	QPSK	1	1	DFT-15	Front	15mm	Ant2	DSI4/9/14	462000	2310	24.31	25.20	1.227	-0.14	0.416	0.511
	N30	10M	QPSK	1	1	DFT-15	Back	15mm	Ant2	DSI4/9/14	462000	2310	24.31	25.20	1.227	-0.06	0.466	0.572
	N30	10M	QPSK	25	14	DFT-15	Front	15mm	Ant2	DSI4/9/14	462000	2310	24.23	25.20	1.250	-0.1	0.402	0.503
77	N30	10M	QPSK	25	14	DFT-15	Back	15mm	Ant2	DSI4/9/14	462000	2310	24.23	25.20	1.250	-0.08	0.585	**0.731**
	N30	10M	QPSK	1	1	DFT-15	Front	15mm	Ant3	DSI4/9/14	462000	2310	23.77	25.20	1.390	-0.1	0.384	0.534
	N30	10M	QPSK	1	1	DFT-15	Back	15mm	Ant3	DSI4/9/14	462000	2310	23.77	25.20	1.390	0.02	0.525	0.730
	N30	10M	QPSK	25	14	DFT-15	Front	15mm	Ant3	DSI4/9/14	462000	2310	23.64	25.20	1.432	0.15	0.379	0.543
	N30	10M	QPSK	25	14	DFT-15	Back	15mm	Ant3	DSI4/9/14	462000	2310	23.64	25.20	1.432	-0.05	0.454	0.650
	N7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant2	DSI4/9/14	507000	2535	23.34	24.20	1.219	-0.03	0.332	0.405
	N7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant2	DSI4/9/14	507000	2535	23.34	24.20	1.219	0.18	0.357	0.435
	N7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant2	DSI4/9/14	507000	2535	23.06	24.20	1.300	-0.15	0.332	0.432
78	N7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant2	DSI4/9/14	507000	2535	23.06	24.20	1.300	-0.03	0.541	**0.703**

	N7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant3	DSI4/9/14	507000	2535	23.27	24.20	1.239	-0.1	0.306	0.379
	N7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant3	DSI4/9/14	507000	2535	23.27	24.20	1.239	0.1	0.357	0.442
	N7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant3	DSI4/9/14	507000	2535	23.22	24.20	1.253	0.06	0.303	0.380
	N7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant3	DSI4/9/14	507000	2535	23.22	24.20	1.253	0.03	0.464	0.581
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant2	DSI4/9/14	518598	2592.99	25.78	27.20	1.387	0.17	0.105	0.146
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant2	DSI4/9/14	518598	2592.99	25.78	27.20	1.387	0.04	0.123	0.171
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant2	DSI4/9/14	518598	2592.99	25.64	27.20	1.432	0.18	0.099	0.142
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant2	DSI4/9/14	518598	2592.99	25.64	27.20	1.432	-0.06	0.115	0.165
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant3	DSI4/9/14	518598	2592.99	25.95	27.20	1.334	-0.11	0.083	0.111
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant3	DSI4/9/14	518598	2592.99	25.95	27.20	1.334	0.09	0.102	0.136
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant3	DSI4/9/14	518598	2592.99	25.61	27.20	1.442	-0.19	0.070	0.101
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant3	DSI4/9/14	518598	2592.99	25.61	27.20	1.442	-0.18	0.089	0.128
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant5	DSI4/9/14	518598	2592.99	24.85	26.20	1.365	-0.17	0.141	0.192
79	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant5	DSI4/9/14	518598	2592.99	24.85	26.20	1.365	-0.02	0.193	**0.263**
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant5	DSI4/9/14	518598	2592.99	24.73	26.20	1.403	0.03	0.130	0.182
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant5	DSI4/9/14	518598	2592.99	24.73	26.20	1.403	-0.16	0.181	0.254
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant6	DSI4/9/14	518598	2592.99	24.18	25.20	1.265	-0.12	0.097	0.123
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant6	DSI4/9/14	518598	2592.99	24.18	25.20	1.265	0.09	0.136	0.172
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant6	DSI4/9/14	518598	2592.99	23.91	25.20	1.346	0.17	0.089	0.120
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant6	DSI4/9/14	518598	2592.99	23.91	25.20	1.346	-0.17	0.119	0.160

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant5	DSI4/9/14	656000	3840	25.18	26.70	1.419	-0.05	0.224	0.318
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant5	DSI4/9/14	656000	3840	25.18	26.70	1.419	-0.16	0.152	0.216
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant5	DSI4/9/14	650000	3750	24.94	26.70	1.500	0.16	0.224	0.336
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant5	DSI4/9/14	662000	3930	25.01	26.70	1.476	-0.15	0.200	0.295
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant5	DSI4/9/14	656000	3840	24.82	26.70	1.542	-0.02	0.196	0.302
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant5	DSI4/9/14	656000	3840	24.82	26.70	1.542	0.18	0.142	0.219
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant5	DSI4/9/14	650000	3750	24.81	26.70	1.545	0.01	0.199	0.308
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant5	DSI4/9/14	662000	3930	24.78	26.70	1.556	0.17	0.186	0.289
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant5	DSI4/9/14	633332	3499.98	25.70	26.70	1.259	-0.17	0.309	0.389
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant5	DSI4/9/14	633332	3499.98	25.70	26.70	1.259	0.15	0.408	0.514
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant5	DSI4/9/14	633332	3499.98	25.24	26.70	1.400	-0.19	0.319	0.446
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant5	DSI4/9/14	633332	3499.98	25.24	26.70	1.400	0.18	0.443	0.620
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant10	DSI4/9/14	656000	3840	25.14	26.20	1.276	-0.02	0.083	0.106
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant10	DSI4/9/14	656000	3840	25.14	26.20	1.276	0.19	0.454	0.580
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant10	DSI4/9/14	650000	3750	24.96	26.20	1.330	-0.02	0.425	0.565
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant10	DSI4/9/14	662000	3930	25.01	26.20	1.315	-0.07	0.387	0.509
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant10	DSI4/9/14	656000	3840	24.80	26.20	1.380	0.02	0.078	0.108
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant10	DSI4/9/14	656000	3840	24.80	26.20	1.380	-0.01	0.402	0.555
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant10	DSI4/9/14	650000	3750	24.58	26.20	1.452	0.06	0.432	0.627
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant10	DSI4/9/14	662000	3930	24.64	26.20	1.432	-0.14	0.363	0.520
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Front	15mm	Ant10	DSI4/9/14	633332	3499.98	25.13	26.20	1.279	-0.16	0.096	0.123
81	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	15mm	Ant10	DSI4/9/14	633332	3499.98	25.13	26.20	1.279	0.18	0.509	**0.651**
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant10	DSI4/9/14	633332	3499.98	25.01	26.20	1.315	-0.13	0.093	0.122
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant10	DSI4/9/14	633332	3499.98	25.01	26.20	1.315	-0.18	0.464	0.610

< Bluetooth SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 4	Full	39	2441	16.55	17.00	1.109	77.07	1.298	0.08	0.011	0.016
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 4	Full	39	2441	16.55	17.00	1.109	77.07	1.298	0.06	0.045	0.065
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 4	Full	0	2402	16.01	17.00	1.256	77.07	1.298	-0.14	0.056	0.091
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 4	Full	78	2480	15.26	17.00	1.493	77.07	1.298	-0.04	0.060	0.116
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 7	Full	39	2441	17.35	18.00	1.161	77.07	1.298	0	0.030	0.046
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Full	39	2441	17.35	18.00	1.161	77.07	1.298	0.08	0.063	0.095
82	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Full	0	2402	17.02	18.00	1.253	77.07	1.298	0.17	0.091	**0.148**
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Full	78	2480	16.37	18.00	1.455	77.07	1.298	0.07	0.078	0.147
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 4	Power level 2/3	39	2441	10.26	11.00	1.186	77.07	1.298	0.08	0.003	0.005
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 4	Power level 2/3	39	2441	10.26	11.00	1.186	77.07	1.298	0.06	0.011	0.017
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 4	Power level 2/3	0	2402	10.12	11.00	1.225	77.07	1.298	-0.14	0.015	0.024
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 4	Power level 2/3	78	2480	9.83	11.00	1.309	77.07	1.298	-0.04	0.016	0.027
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 7	Power level 2/3	39	2441	11.73	12.00	1.064	77.07	1.298	0	0.009	0.012
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power level 2/3	39	2441	11.73	12.00	1.064	77.07	1.298	0.08	0.013	0.018
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power level 2/3	0	2402	11.26	12.00	1.186	77.07	1.298	0.17	0.021	0.032
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power level 2/3	78	2480	11.12	12.00	1.225	77.07	1.298	0.07	0.016	0.025

<WLAN2.4GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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 4	Full	1	2412	19.06	20.50	1.393	97.06	1.030	0.13	0.156	0.224
83	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 4	Full	1	2412	19.06	20.50	1.393	97.06	1.030	-0.13	0.194	**0.278**
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 4	Full	6	2437	19.01	20.50	1.409	97.06	1.030	0.09	0.182	0.264
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 4	Full	11	2462	18.68	20.50	1.521	97.06	1.030	0.05	0.174	0.273
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 4	Power level 2/3	1	2412	17.09	18.50	1.384	97.06	1.030	0.09	0.095	0.135
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 4	Power level 2/3	1	2412	17.09	18.50	1.384	97.06	1.030	0.03	0.118	0.168
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 4	Power level 2/3	6	2437	17.06	18.50	1.393	97.06	1.030	-0.01	0.111	0.159
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 4	Power level 2/3	11	2462	16.73	18.50	1.503	97.06	1.030	0.08	0.096	0.149
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 7	Full	1	2412	19.88	20.50	1.153	97.06	1.030	-0.02	0.130	0.154
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 7	Full	1	2412	19.88	20.50	1.153	97.06	1.030	0.03	0.136	0.162
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 7	Full	6	2437	19.33	20.50	1.309	97.06	1.030	-0.08	0.121	0.163
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 7	Full	11	2462	18.55	20.00	1.396	97.06	1.030	-0.11	0.102	0.147
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 7	Power level 2/3	1	2412	17.91	18.50	1.146	97.06	1.030	0.06	0.068	0.080
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 7	Power level 2/3	1	2412	17.91	18.50	1.146	97.06	1.030	-0.11	0.083	0.098
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 7	Power level 2/3	6	2437	17.36	18.50	1.300	97.06	1.030	0.08	0.068	0.091
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 7	Power level 2/3	11	2462	16.58	18.50	1.556	97.06	1.030	0.05	0.073	0.117

< WLAN5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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	802.11n-HT40 MCS0	Front	15mm	Ant 8	Full	54	5270	17.20	19.00	1.514	99.51	1.005	-0.09	0.080	0.122
84	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 8	Full	54	5270	17.20	19.00	1.514	99.51	1.005	-0.13	0.105	**0.160**
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 8	Full	62	5310	16.74	18.50	1.500	99.51	1.005	-0.07	0.095	0.143
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 8	Power level 2/3	50	5250	14.59	16.00	1.384	99.07	1.009	0.08	0.041	0.057
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 8	Power level 2/3	50	5250	14.59	16.00	1.384	99.07	1.009	0.09	0.075	0.105
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	15mm	Ant 9	Full	54	5270	17.52	19.00	1.406	99.51	1.005	-0.1	0.098	0.138
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9	Full	54	5270	17.52	19.00	1.406	99.51	1.005	0.11	0.090	0.127
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	15mm	Ant 9	Full	62	5310	16.85	18.50	1.462	99.51	1.005	-0.14	0.098	0.144
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 9	Power level 2/3	58	5290	14.48	16.00	1.419	99.07	1.009	0.09	0.066	0.095
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9	Power level 2/3	58	5290	14.48	16.00	1.419	99.07	1.009	0.06	0.060	0.086
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 8	Full	106	5530	17.51	19.00	1.409	99.06	1.009	0.1	0.131	0.186
85	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 8	Full	106	5530	17.51	19.00	1.409	99.06	1.009	-0.02	0.197	**0.280**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 8	Full	122	5610	17.49	19.00	1.416	99.06	1.009	0.19	0.188	0.269
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 8	Power level 2/3	114	5570	14.58	16.00	1.387	99.07	1.009	0.04	0.070	0.098
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 8	Power level 2/3	114	5570	14.58	16.00	1.387	99.07	1.009	0.09	0.111	0.155
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 9	Full	122	5610	17.59	19.00	1.384	99.06	1.009	0.06	0.073	0.102
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9	Full	122	5610	17.59	19.00	1.384	99.06	1.009	0.09	0.078	0.108
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9	Full	106	5530	17.29	19.00	1.483	99.06	1.009	-0.11	0.070	0.105
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 9	Power level 2/3	114	5570	14.66	16.00	1.361	99.07	1.009	0.08	0.032	0.044
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9	Power level 2/3	114	5570	14.66	16.00	1.361	99.07	1.009	0.03	0.036	0.049
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 8	Full	155	5775	17.38	19.00	1.452	99.06	1.009	0.01	0.149	0.218
86	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 8	Full	155	5775	17.38	19.00	1.452	99.06	1.009	-0.03	0.278	**0.407**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 8	Power level 2/3	155	5775	15.39	17.00	1.449	99.06	1.009	0.07	0.095	0.139
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 8	Power level 2/3	155	5775	15.39	17.00	1.449	99.06	1.009	0.05	0.203	0.297
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 9	Full	155	5775	17.52	19.00	1.406	99.06	1.009	-0.19	0.061	0.087
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9	Full	155	5775	17.52	19.00	1.406	99.06	1.009	-0.12	0.058	0.082
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 9	Power level 2/3	155	5775	15.55	17.00	1.396	99.06	1.009	0.09	0.033	0.046
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9	Power level 2/3	155	5775	15.55	17.00	1.396	99.06	1.009	-0.01	0.030	0.042

18.4 Product Specific SAR

<WCDMA SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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 V	RMC 12.2Kbps	Left Side	0mm	Ant 0	DSI4	4182	836.4	24.03	25.00	1.250	-0.01	0.922	1.153
87	WCDMA V	RMC 12.2Kbps	Left Side	0mm	Ant 0	DSI4	4132	826.4	23.98	25.00	1.265	0.03	1.200	1.518
	WCDMA V	RMC 12.2Kbps	Left Side	0mm	Ant 0	DSI4	4233	846.6	23.97	25.00	1.268	-0.06	0.795	1.008
	WCDMA IV	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI1	1413	1732.6	22.63	23.00	1.089	0.15	1.770	1.927
88	WCDMA IV	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI1	1312	1712.4	22.49	23.00	1.125	0.09	1.800	**2.024**
	WCDMA IV	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI1	1513	1752.6	22.53	23.00	1.114	0.02	1.230	1.371
	WCDMA IV	RMC 12.2Kbps	Left Side	6mm	Ant 2	DSI4	1312	1712.4	24.63	25.00	1.089	0.04	1.210	1.318
	WCDMA IV	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI6/11	1413	1732.6	21.11	21.50	1.094	-0.09	1.010	1.105
	WCDMA IV	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI6/11	1312	1712.4	20.98	21.50	1.127	-0.15	1.240	1.398
	WCDMA IV	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI6/11	1513	1752.6	20.99	21.50	1.125	0	0.740	0.832
	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 3	DSI4	1413	1732.6	24.19	25.00	1.205	-0.01	1.400	1.687
	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 3	DSI4	1312	1712.4	24.08	25.00	1.236	-0.12	1.370	1.693
	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 3	DSI4	1513	1752.6	24.03	25.00	1.250	0.08	1.380	1.725
	WCDMA IV	RMC 12.2Kbps	Bottom Side	0mm	Ant 3	DSI4	1413	1732.6	24.19	25.00	1.205	0.15	1.260	1.518
89	WCDMA II	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI1	9400	1880	23.00	23.50	1.122	0.15	2.230	**2.502**
	WCDMA II	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI1	9262	1852.4	22.91	23.50	1.146	0.01	1.970	2.257
	WCDMA II	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI1	9538	1907.6	22.94	23.50	1.138	0.06	2.120	2.412
	WCDMA II	RMC 12.2Kbps	Left Side	6mm	Ant 2	DSI4	9400	1880	24.65	25.00	1.084	0.17	1.120	1.214
	WCDMA II	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI6/11	9400	1880	21.45	22.00	1.135	0.04	1.710	1.941
	WCDMA II	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI6/11	9262	1852.4	21.36	22.00	1.159	-0.17	1.400	1.622
	WCDMA II	RMC 12.2Kbps	Left Side	0mm	Ant 2	DSI6/11	9538	1907.6	21.42	22.00	1.143	0.02	1.640	1.874
	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 3	DSI4	9400	1880	24.25	25.00	1.189	-0.14	1.680	1.997
	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 3	DSI4	9262	1852.4	24.19	25.00	1.205	-0.18	1.610	1.940
	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 3	DSI4	9538	1907.6	24.21	25.00	1.199	0.03	1.800	2.159
	WCDMA II	RMC 12.2Kbps	Bottom Side	0mm	Ant 3	DSI4	9400	1880	24.25	25.00	1.189	-0.04	1.600	1.902

<LTE FDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	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)
90	LTE Band 13	10M	QPSK	1	0	Left Side	0mm	Ant 0	DSI4	23230	782	23.55	25.00	1.396	0.01	0.872	**1.218**
	LTE Band 13	10M	QPSK	25	0	Left Side	0mm	Ant 0	DSI4	23230	782	22.49	24.00	1.416	-0.02	0.533	0.755
91	LTE Band 66	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	132322	1745	23.05	24.00	1.245	0.17	2.230	**2.775**
	LTE Band 66	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	132072	1720	22.95	24.00	1.274	0.13	2.010	2.560
	LTE Band 66	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	132572	1770	23.01	24.00	1.256	-0.1	2.080	2.613
	LTE Band 66	20M	QPSK	1	0	Left Side	6mm	Ant 2	DSI4	132322	1745	24.13	25.00	1.222	-0.13	0.781	0.954
	LTE Band 66	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	132322	1745	22.95	24.00	1.274	0.14	2.100	2.674
	LTE Band 66	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	132072	1720	22.81	24.00	1.315	-0.01	1.970	2.591
	LTE Band 66	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	132572	1770	22.86	24.00	1.300	-0.08	1.990	2.587
	LTE Band 66	20M	QPSK	100	0	Left Side	0mm	Ant 2	DSI1	132322	1745	22.87	24.00	1.297	-0.15	2.110	2.737
	LTE Band 66	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	132322	1745	21.49	22.50	1.262	0.13	1.590	2.006
	LTE Band 66	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	132072	1720	21.29	22.50	1.321	-0.01	1.340	1.771
	LTE Band 66	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	132572	1770	21.38	22.50	1.294	-0.11	1.510	1.954
	LTE Band 66	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	132322	1745	21.41	22.50	1.285	-0.14	1.370	1.761
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	132322	1745	23.93	25.00	1.279	0.16	1.760	2.252
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	132072	1720	23.77	25.00	1.327	0.05	1.990	2.642
	LTE Band 66	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	132572	1770	23.83	25.00	1.309	-0.15	1.780	2.330
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	132322	1745	22.80	24.00	1.318	0.05	1.610	2.122
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	132072	1720	22.73	24.00	1.340	0.05	1.790	2.398
	LTE Band 66	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	132572	1770	22.67	24.00	1.358	0.05	1.710	2.323
	LTE Band 66	20M	QPSK	100	0	Bottom Side	0mm	Ant 3	DSI4	132072	1720	22.76	24.00	1.330	0.16	1.620	2.155
	LTE Band 25	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	26340	1880	21.55	22.50	1.245	-0.03	1.830	2.277
92	LTE Band 25	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	26140	1860	21.51	22.50	1.256	0.04	1.830	**2.299**
	LTE Band 25	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	26590	1905	21.47	22.50	1.268	0.06	1.810	2.294
	LTE Band 25	20M	QPSK	1	0	Left Side	6mm	Ant 2	DSI4	26140	1860	24.13	25.00	1.222	-0.01	0.919	1.123
	LTE Band 25	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	26340	1880	21.55	22.50	1.245	0.16	1.790	2.228
	LTE Band 25	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	26140	1860	21.51	22.50	1.256	-0.06	1.730	2.173
	LTE Band 25	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	26590	1905	21.47	22.50	1.268	-0.11	1.740	2.206
	LTE Band 25	20M	QPSK	100	0	Left Side	0mm	Ant 2	DSI1	26340	1880	21.34	22.50	1.306	-0.08	1.730	2.260
	LTE Band 25	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	26340	1880	20.40	21.50	1.288	-0.03	1.350	1.739
	LTE Band 25	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	26140	1860	20.34	21.50	1.306	-0.17	1.340	1.750
	LTE Band 25	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	26590	1905	20.37	21.50	1.297	0.05	1.310	1.699
	LTE Band 25	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	26340	1880	20.37	21.50	1.297	0.11	1.310	1.699
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	26340	1880	23.91	25.00	1.285	0.12	1.640	2.108
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	26140	1860	23.83	25.00	1.309	0.07	1.720	2.252
	LTE Band 25	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	26590	1905	23.89	25.00	1.291	0.06	1.660	2.143
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	26340	1880	22.85	24.00	1.303	0.13	1.580	2.059
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	26140	1860	22.82	24.00	1.312	0.09	1.680	2.204
	LTE Band 25	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	26590	1905	22.71	24.00	1.346	-0.05	1.680	2.261
	LTE Band 25	20M	QPSK	100	0	Bottom Side	0mm	Ant 3	DSI4	26340	1880	22.82	24.00	1.312	0.13	1.500	1.968
93	LTE Band 30	10M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	27710	2310	20.70	21.50	1.202	-0.15	2.290	**2.753**
	LTE Band 30	10M	QPSK	1	0	Left Side	6mm	Ant 2	DSI4	27710	2310	24.32	25.00	1.169	0.11	0.931	1.089
	LTE Band 30	10M	QPSK	25	0	Left Side	0mm	Ant 2	DSI1	27710	2310	20.69	21.50	1.205	-0.06	2.280	2.747
	LTE Band 30	10M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	27710	2310	20.67	21.50	1.211	-0.07	2.110	2.554
	LTE Band 30	10M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	27710	2310	19.25	20.00	1.189	0.11	1.640	1.949
	LTE Band 30	10M	QPSK	25	0	Left Side	0mm	Ant 2	DSI6/11	27710	2310	19.17	20.00	1.211	0.012	1.630	1.973
	LTE Band 30	10M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	27710	2310	24.16	25.00	1.213	0.16	1.660	2.014
	LTE Band 30	10M	QPSK	25	0	Bottom Side	0mm	Ant 3	DSI4	27710	2310	23.08	24.00	1.236	0.02	1.510	1.866
	LTE Band 30	10M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	27710	2310	23.01	24.00	1.256	0.16	1.460	1.834
	LTE Band 7	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	21100	2535	20.53	21.20	1.167	0.01	1.930	2.252
	LTE Band 7	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	20850	2510	20.47	21.20	1.183	-0.13	1.890	2.236

	LTE Band 7	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	21350	2560	20.34	21.20	1.219	0.16	1.970	2.401
	LTE Band 7C	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	21350 21152	2560 2540.2	20.31	21.20	1.227	0.16	1.810	2.222
	LTE Band 7	20M	QPSK	1	0	Left Side	6mm	Ant 2	DSI4	21350	2560	23.54	24.20	1.164	0.14	1.200	1.397
	LTE Band 7	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	21100	2535	20.46	21.20	1.186	0.15	1.960	2.324
	LTE Band 7	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	20850	2510	20.34	21.20	1.219	0.12	1.870	2.280
	LTE Band 7	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	21350	2560	20.27	21.20	1.239	-0.11	1.910	2.366
	LTE Band 7	20M	QPSK	100	0	Left Side	0mm	Ant 2	DSI1	21100	2535	20.41	21.20	1.199	0.18	1.910	2.291
	LTE Band 7	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	21100	2535	18.86	19.70	1.213	-0.01	1.550	1.881
	LTE Band 7C	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	21350 21152	2560 2540.2	18.84	19.70	1.219	0.15	1.440	1.755
	LTE Band 7	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	20850	2510	18.74	19.70	1.247	-0.01	1.270	1.584
	LTE Band 7	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	21350	2560	18.81	19.70	1.227	0.15	1.470	1.804
	LTE Band 7	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	21100	2535	18.76	19.70	1.242	-0.04	1.440	1.788
	LTE Band 7	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	21100	2535	23.28	24.20	1.236	-0.1	2.100	2.595
	LTE Band 7	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	20850	2510	23.25	24.20	1.245	0.05	2.120	2.638
	LTE Band 7C	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	21350 21152	2560 2540.2	23.02	24.20	1.312	0.12	1.890	2.480
	LTE Band 7	20M	QPSK	1	0	Bottom Side	0mm	Ant 3	DSI4	21350	2560	23.24	24.20	1.247	0.16	2.110	2.632
	LTE Band 7	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	21100	2535	22.29	23.20	1.233	-0.1	2.100	2.590
94	LTE Band 7	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	20850	2510	22.18	23.20	1.265	0.16	2.110	**2.669**
	LTE Band 7	20M	QPSK	50	0	Bottom Side	0mm	Ant 3	DSI4	21350	2560	22.24	23.20	1.247	0.15	2.070	2.582
	LTE Band 7	20M	QPSK	100	0	Bottom Side	0mm	Ant 3	DSI4	21100	2535	22.16	23.20	1.271	-0.11	2.030	2.579
	LTE Band 7	20M	QPSK	1	0	Top Side	0mm	Ant 5	DSI4	21100	2535	23.17	24.20	1.268	0.08	1.430	1.813
	LTE Band 7	20M	QPSK	1	0	Top Side	0mm	Ant 5	DSI4	20850	2510	23.10	24.20	1.288	0.12	1.480	1.907
	LTE Band 7	20M	QPSK	1	0	Top Side	0mm	Ant 5	DSI4	21350	2560	23.08	24.20	1.294	-0.06	1.407	1.821
	LTE Band 7	20M	QPSK	50	0	Top Side	0mm	Ant 5	DSI4	21100	2535	22.33	23.20	1.222	0.06	1.362	1.664

<LTE FDD SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Test Position	Gap (mm)	Antenna	Power State	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	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	40185	2549.5	21.71	22.50	1.199	62.9	1.006	-0.18	1.730	2.088
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	39750	2506	21.61	22.50	1.227	62.9	1.006	-0.07	1.420	1.753
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	40620	2593	21.68	22.50	1.208	62.9	1.006	-0.1	1.830	2.224
	LTE Band 41C	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	40185 40383	2549.5 2569.3	21.54	22.50	1.247	62.9	1.006	0.09	1.740	2.183
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	41055	2636.5	21.63	22.50	1.222	62.9	1.006	0.18	1.720	2.114
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	41490	2680	21.69	22.50	1.205	62.9	1.006	0.06	1.730	2.097
	LTE Band 41	20M	QPSK	1	0	Left Side	6mm	Ant 2	DSI4	40620	2593	24.21	25.00	1.199	62.9	1.006	0.17	1.080	1.303
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	40185	2549.5	21.67	22.50	1.211	62.9	1.006	0.12	1.810	2.204
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	39750	2506	21.52	22.50	1.253	62.9	1.006	-0.13	1.470	1.853
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	40620	2593	21.58	22.50	1.236	62.9	1.006	0.15	1.750	2.176
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	41055	2636.5	21.61	22.50	1.227	62.9	1.006	0.04	1.690	2.087
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	41490	2680	21.60	22.50	1.230	62.9	1.006	0.02	1.680	2.079
	LTE Band 41	20M	QPSK	100	0	Left Side	0mm	Ant 2	DSI1	40185	2549.5	21.63	22.50	1.222	62.9	1.006	-0.14	1.710	2.102
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	40185	2549.5	20.26	21.00	1.186	62.9	1.006	0.1	1.290	1.539
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	39750	2506	20.03	21.00	1.250	62.9	1.006	0.11	1.080	1.358
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	40620	2593	20.25	21.00	1.189	62.9	1.006	0.03	1.310	1.566
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	41055	2636.5	20.14	21.00	1.219	62.9	1.006	0.03	1.370	1.680
	LTE Band 41C	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	40185 40383	2549.5 2569.3	20.03	21.00	1.250	62.9	1.006	0.11	1.210	1.522
	LTE Band 41	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	41490	2680	20.17	21.00	1.211	62.9	1.006	-0.07	1.350	1.644
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	40185	2549.5	20.21	21.00	1.199	62.9	1.006	0.05	1.350	1.629
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	39750	2506	20.00	21.00	1.259	62.9	1.006	0.02	1.120	1.418
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	40620	2593	20.16	21.00	1.213	62.9	1.006	-0.14	1.320	1.611
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	41055	2636.5	20.06	21.00	1.242	62.9	1.006	0.01	1.270	1.586
	LTE Band 41	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	41490	2680	20.08	21.00	1.236	62.9	1.006	-0.18	1.320	1.641
	LTE Band 41	20M	QPSK	100	0	Left Side	0mm	Ant 2	DSI6/11	40185	2549.5	20.15	21.00	1.216	62.9	1.006	-0.1	1.350	1.652
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	40185	2549.5	23.40	24.10	1.175	42.9	1.009	0.04	1.830	2.169
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	39750	2506	23.13	24.10	1.250	42.9	1.009	-0.02	1.510	1.905
95	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	40620	2593	23.33	24.10	1.194	42.9	1.009	0.07	2.200	**2.650**
	LTE Band 41C(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	40185 40383	2549.5 2569.3	22.56	24.10	1.426	42.9	1.009	0.03	1.710	2.460
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	41055	2636.5	23.30	24.10	1.202	42.9	1.009	-0.1	1.800	2.184
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI1	41490	2680	23.36	24.10	1.186	42.9	1.009	0.08	1.210	1.448
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	6mm	Ant 2	DSI4	40620	2593	26.27	27.00	1.183	42.9	1.009	0.07	1.060	1.265
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	40185	2549.5	23.40	24.10	1.175	42.9	1.009	-0.13	1.730	2.051
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	39750	2506	23.13	24.10	1.250	42.9	1.009	-0.11	1.700	2.145
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	40620	2593	23.33	24.10	1.194	42.9	1.009	-0.14	1.940	2.337
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	41055	2636.5	23.30	24.10	1.202	42.9	1.009	0.11	1.890	2.293
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI1	41490	2680	23.36	24.10	1.186	42.9	1.009	-0.09	1.300	1.555
	LTE Band 41(HPUE)	20M	QPSK	100	0	Left Side	0mm	Ant 2	DSI1	40185	2549.5	23.30	24.10	1.202	42.9	1.009	0.08	1.860	2.256
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	40185	2549.5	21.83	22.60	1.194	42.9	1.009	-0.08	1.360	1.638
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	40185	2549.5	21.07	22.60	1.422	42.9	1.009	-0.08	1.110	1.593
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	39750	2506	21.74	22.60	1.219	42.9	1.009	-0.09	1.040	1.279
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	40620	2593	21.78	22.60	1.208	42.9	1.009	0.17	1.310	1.596
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	41055	2636.5	21.81	22.60	1.199	42.9	1.009	0.16	1.310	1.585
	LTE Band 41(HPUE)	20M	QPSK	1	0	Left Side	0mm	Ant 2	DSI6/11	41490	2680	21.77	22.60	1.211	42.9	1.009	0.05	1.200	1.466
	LTE Band 41(HPUE)	20M	QPSK	50	0	Left Side	0mm	Ant 2	DSI6/11	40185	2549.5	21.78	22.60	1.208	42.9	1.009	0.05	1.200	1.462
	LTE Band 41(HPUE)	20M	QPSK	100	0	Left Side	0mm	Ant 2	DSI6/11	40185	2549.5	21.78	22.60	1.208	42.9	1.009	-0.02	1.190	1.450
	LTE Band 41	20M	QPSK	1	0	Right Side	0mm	ANT 6	DSI4/9/14	40185	2549.5	23.64	24.50	1.219	62.9	1.006	0.02	1.690	2.072
	LTE Band 41	20M	QPSK	1	0	Right Side	0mm	ANT 6	DSI4/9/14	39750	2506	23.46	24.50	1.271	62.9	1.006	-0.08	1.700	2.173
	LTE Band 41	20M	QPSK	1	0	Right Side	0mm	ANT 6	DSI4/9/14	40620	2593	23.50	24.50	1.259	62.9	1.006	0.07	1.710	2.166
	LTE Band 41	20M	QPSK	1	0	Right Side	0mm	ANT 6	DSI4/9/14	41055	2636.5	23.39	24.50	1.291	62.9	1.006	0.02	1.740	2.260

	LTE Band 41	20M	QPSK	1	0	Right Side	0mm	ANT 6	DSI4/9/14	41490	2680	23.49	24.50	1.262	62.9	1.006	0.09	1.670	2.120
	LTE Band 41	20M	QPSK	50	0	Right Side	0mm	ANT 6	DSI4/9/14	40185	2549.5	23.06	24.00	1.242	62.9	1.006	0.01	1.650	2.061
	LTE Band 41	20M	QPSK	50	0	Right Side	0mm	ANT 6	DSI4/9/14	39750	2506	22.93	24.00	1.279	62.9	1.006	0.04	1.680	2.162
	LTE Band 41	20M	QPSK	50	0	Right Side	0mm	ANT 6	DSI4/9/14	40620	2593	23.00	24.00	1.259	62.9	1.006	0.09	1.710	2.166
	LTE Band 41	20M	QPSK	50	0	Right Side	0mm	ANT 6	DSI4/9/14	41055	2636.5	23.02	24.00	1.253	62.9	1.006	-0.05	1.710	2.156
	LTE Band 41	20M	QPSK	50	0	Right Side	0mm	ANT 6	DSI4/9/14	41490	2680	22.90	24.00	1.288	62.9	1.006	0.02	1.650	2.138
	LTE Band 41	20M	QPSK	100	0	Right Side	0mm	ANT 6	DSI4/9/14	40185	2549.5	23.02	24.00	1.253	62.9	1.006	0.01	1.610	2.030
	LTE Band 48	20M	QPSK	1	0	Back	0mm	Ant 5	DSI 1/6/11	55830	3609	22.40	23.00	1.148	62.9	1.006	0.1	1.420	1.640
96	LTE Band 48	20M	QPSK	1	0	Back	0mm	Ant 5	DSI 1/6/11	55340	3560	22.13	23.00	1.222	62.9	1.006	0.06	1.570	**1.930**
	LTE Band 48C	20M	QPSK	1	0	Back	0mm	Ant 5	DSI1/6/11	55830 55632	3609 3589.2	22.11	23.00	1.227	62.9	1.006	-0.05	1.420	1.753
	LTE Band 48	20M	QPSK	1	0	Back	0mm	Ant 5	DSI 1/6/11	56150	3641	22.09	23.00	1.233	62.9	1.006	0.12	1.370	1.699
	LTE Band 48	20M	QPSK	1	0	Back	0mm	Ant 5	DSI 1/6/11	56640	3690	22.38	23.00	1.153	62.9	1.006	0.12	1.190	1.381
	LTE Band 48	20M	QPSK	50	0	Back	0mm	Ant 5	DSI 1/6/11	55830	3609	22.34	23.00	1.164	62.9	1.006	-0.02	1.330	1.558
	LTE Band 48	20M	QPSK	50	0	Back	0mm	Ant 5	DSI 1/6/11	55340	3560	22.04	23.00	1.247	62.9	1.006	0.15	1.410	1.769
	LTE Band 48	20M	QPSK	50	0	Back	0mm	Ant 5	DSI 1/6/11	56150	3641	22.08	23.00	1.236	62.9	1.006	-0.06	1.290	1.604
	LTE Band 48	20M	QPSK	50	0	Back	0mm	Ant 5	DSI 1/6/11	56640	3690	22.31	23.00	1.172	62.9	1.006	0.12	1.120	1.321
	LTE Band 48	20M	QPSK	100	0	Back	0mm	Ant 5	DSI 1/6/11	55830	3609	22.36	23.00	1.159	62.9	1.006	0.15	1.240	1.446

<5GNR SAR>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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	40M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI1	349000	1745	24.31	25.20	1.227	0.07	1.650	2.025
97	N66	40M	QPSK	108	54	DFT-15	Left Side	0mm	Ant 2	DSI1	349000	1745	24.10	25.20	1.288	0.09	1.630	**2.100**
	N66	40M	QPSK	216	0	DFT-15	Left Side	0mm	Ant 2	DSI1	349000	1745	23.11	24.20	1.285	-0.16	1.440	1.851
	N66	40M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI6/11	349000	1745	23.30	24.20	1.230	0.12	1.480	1.821
	N66	40M	QPSK	108	54	DFT-15	Left Side	0mm	Ant 2	DSI6/11	349000	1745	23.29	24.20	1.233	0.11	1.450	1.788
	N66	40M	QPSK	1	1	DFT-15	Back	0mm	Ant 3	DSI4	349000	1745	24.15	25.20	1.274	0.05	1.450	1.847
	N66	40M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 3	DSI4	349000	1745	24.15	25.20	1.274	-0.08	1.110	1.414
	N66	40M	QPSK	108	54	DFT-15	Back	0mm	Ant 3	DSI4	349000	1745	23.89	25.20	1.352	-0.03	1.350	1.825
	N66	40M	QPSK	108	54	DFT-15	Bottom Side	0mm	Ant 3	DSI4	349000	1745	23.89	25.20	1.352	-0.17	0.941	1.272
98	N25	40M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI1	376500	1882.5	21.47	22.20	1.183	0.06	1.930	**2.283**
	N25	40M	QPSK	1	1	DFT-15	Left Side	6mm	Ant 2	DSI4/9/14	376500	1882.5	23.97	25.20	1.327	0.18	0.918	1.219
	N25	40M	QPSK	108	54	DFT-15	Left Side	0mm	Ant 2	DSI1	376500	1882.5	21.45	22.20	1.189	0.02	1.860	2.211
	N25	40M	QPSK	216	0	DFT-15	Left Side	0mm	Ant 2	DSI1	376500	1882.5	21.40	22.20	1.202	-0.04	1.880	2.260
	N25	40M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI6/11	376500	1882.5	20.27	21.20	1.239	0.02	1.290	1.598
	N25	40M	QPSK	108	54	DFT-15	Left Side	0mm	Ant 2	DSI6/11	376500	1882.5	20.20	21.20	1.259	-0.04	1.210	1.523
	N25	40M	QPSK	1	1	DFT-15	Back	0mm	Ant 3	DSI4	376500	1882.5	24.21	25.20	1.256	-0.06	1.450	1.821
	N25	40M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 3	DSI4	376500	1882.5	24.21	25.20	1.256	-0.15	0.857	1.076
	N25	40M	QPSK	108	54	DFT-15	Back	0mm	Ant 3	DSI4	376500	1882.5	23.78	25.20	1.387	0.12	1.240	1.720
	N25	40M	QPSK	108	54	DFT-15	Bottom Side	0mm	Ant 3	DSI4	376500	1882.5	23.78	25.20	1.387	-0.03	0.871	1.208
99	N30	10M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI1	462000	2310	21.45	22.20	1.189	0.07	1.980	**2.353**
	N30	10M	QPSK	1	1	DFT-15	Left Side	6mm	Ant 2	DSI4	462000	2310	24.31	25.20	1.227	0.12	1.240	1.522
	N30	10M	QPSK	25	14	DFT-15	Left Side	0mm	Ant 2	DSI1	462000	2310	21.37	22.20	1.211	-0.15	1.910	2.312
	N30	10M	QPSK	50	0	DFT-15	Left Side	0mm	Ant 2	DSI1	462000	2310	21.28	22.20	1.236	0.15	1.880	2.324
	N30	10M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI6/11	462000	2310	19.96	20.70	1.186	-0.09	1.290	1.530
	N30	10M	QPSK	25	14	DFT-15	Left Side	0mm	Ant 2	DSI6/11	462000	2310	19.91	20.70	1.199	0.17	1.260	1.511
	N30	10M	QPSK	1	1	DFT-15	Back	0mm	Ant 3	DSI4	462000	2310	23.77	25.20	1.390	-0.12	1.430	1.988
	N30	10M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 3	DSI4	462000	2310	23.77	25.20	1.390	-0.18	0.607	0.844
	N30	10M	QPSK	25	14	DFT-15	Back	0mm	Ant 3	DSI4	462000	2310	23.64	25.20	1.432	0.07	1.280	1.833
	N30	10M	QPSK	25	14	DFT-15	Bottom Side	0mm	Ant 3	DSI4	462000	2310	23.64	25.20	1.432	0.11	0.613	0.878
	N7	40M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI1	507000	2535	20.45	21.20	1.189	-0.02	2.020	2.401
	N7	40M	QPSK	1	1	DFT-15	Left Side	6mm	Ant 2	DSI4	507000	2535	23.34	24.20	1.219	-0.02	0.419	0.511
	N7	40M	QPSK	108	54	DFT-15	Left Side	0mm	Ant 2	DSI1	507000	2535	20.38	21.20	1.208	-0.18	1.970	2.379
	N7	40M	QPSK	216	0	DFT-15	Left Side	0mm	Ant 2	DSI1	507000	2535	20.37	21.20	1.211	-0.09	1.790	2.167
	N7	40M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 2	DSI6/11	507000	2535	19.44	20.20	1.191	0.16	1.580	1.882
	N7	40M	QPSK	108	54	DFT-15	Left Side	0mm	Ant 2	DSI6/11	507000	2535	19.39	20.20	1.205	0.17	1.550	1.868
100	N7	40M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 3	DSI4	507000	2535	23.27	24.20	1.239	0.13	2.210	**2.738**
	N7	40M	QPSK	108	54	DFT-15	Bottom Side	0mm	Ant 3	DSI4	507000	2535	23.22	24.20	1.253	-0.14	2.010	2.519
	N7	40M	QPSK	216	0	DFT-15	Bottom Side	0mm	Ant 3	DSI4	507000	2535	22.59	23.20	1.151	0.06	1.950	2.244
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 2	DSI4	518598	2592.99	25.78	27.20	1.387	0.1	0.964	1.337
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 2	DSI1	518598	2592.99	20.08	21.20	1.294	-0.07	1.380	1.786
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 2	DSI1	518598	2592.99	20.08	21.20	1.294	0.16	1.870	2.420
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	12mm	Ant 2	DSI4	518598	2592.99	25.78	27.20	1.387	0.15	0.240	0.333
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	6mm	Ant 2	DSI4	518598	2592.99	25.78	27.20	1.387	-0.09	0.380	0.527
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 2	DSI4	518598	2592.99	25.64	27.20	1.432	-0.17	0.925	1.325
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 2	DSI1	518598	2592.99	20.02	21.20	1.312	0.12	1.290	1.693
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 2	DSI1	518598	2592.99	20.02	21.20	1.312	-0.11	1.650	2.165
	N41(HPUE)	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 2	DSI1	518598	2592.99	20.00	21.20	1.318	0.11	1.280	1.687
	N41(HPUE)	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 2	DSI1	518598	2592.99	20.00	21.20	1.318	-0.02	1.640	2.162
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 2	DSI6/11	518598	2592.99	18.53	19.70	1.309	-0.07	1.040	1.362
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 2	DSI6/11	518598	2592.99	18.53	19.70	1.309	-0.02	1.210	1.584
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 2	DSI6/11	518598	2592.99	18.52	19.70	1.312	0.11	0.975	1.279
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 2	DSI6/11	518598	2592.99	18.52	19.70	1.312	-0.04	1.110	1.457

	N41(HPUE)	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 2	DSI6/11	518598	2592.99	18.44	19.70	1.337	-0.03	1.140	1.524
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 3	DSI4	518598	2592.99	25.95	27.20	1.334	-0.18	0.988	1.318
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Bottom Side	0mm	Ant 3	DSI4	518598	2592.99	25.95	27.20	1.334	-0.01	0.958	1.278
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 3	DSI4	518598	2592.99	25.61	27.20	1.442	-0.02	0.885	1.276
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Bottom Side	0mm	Ant 3	DSI4	518598	2592.99	25.61	27.20	1.442	0.17	0.868	1.252
101	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	DSI1	518598	2592.99	23.76	25.20	1.393	-0.09	1.890	**2.633**
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 5	DSI4	518598	2592.99	24.85	26.20	1.365	0.01	1.020	1.392
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	6mm	Ant 5	DSI4	518598	2592.99	24.85	26.20	1.365	0.1	0.868	1.184
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	DSI1	518598	2592.99	23.63	25.20	1.435	0.12	1.440	2.067
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI4	518598	2592.99	24.73	26.20	1.403	0.08	0.907	1.272
	N41(HPUE)	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 5	DSI1	518598	2592.99	23.30	24.20	1.230	-0.03	1.420	1.747
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	DSI6/11	518598	2592.99	22.83	24.20	1.371	-0.18	1.020	1.398
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	DSI6/11	518598	2592.99	22.75	24.20	1.396	0.03	0.910	1.271
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 6	DSI4	518598	2592.99	24.18	25.20	1.265	0.02	0.690	0.873
	N41(HPUE)	100M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 6	DSI4	518598	2592.99	24.18	25.20	1.265	0.03	1.210	1.530
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 6	DSI4	518598	2592.99	23.91	25.20	1.346	-0.1	0.490	0.659
	N41(HPUE)	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	DSI4	518598	2592.99	23.91	25.20	1.346	-0.17	1.050	1.413
	N41(HPUE)	100M	QPSK	270	0	DFT-30	Right Side	0mm	Ant 6	DSI4	518598	2592.99	23.35	24.20	1.216	0.17	1.070	1.301

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 5	DSI4	656000	3840	25.18	26.70	1.419	0.1	0.641	0.910
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	DSI1	656000	3840	20.76	22.20	1.393	-0.07	1.530	2.132
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 5	DSI4	656000	3840	25.18	26.70	1.419	0.04	0.565	0.802
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	6mm	Ant 5	DSI4	656000	3840	25.18	26.70	1.419	0.05	0.158	0.224
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 5	DSI4	656000	3840	24.82	26.70	1.542	0.08	0.605	0.933
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	DSI1	656000	3840	20.74	22.20	1.400	0.02	1.490	2.085
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI4	656000	3840	24.82	26.70	1.542	-0.14	0.547	0.843
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	DSI6/11	656000	3840	19.72	20.70	1.253	0.05	1.150	1.441
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	DSI6/11	656000	3840	19.69	20.70	1.262	-0.06	1.030	1.300
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 5	DSI4	633332	3499.98	25.70	26.70	1.259	-0.17	0.886	1.115
103	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	DSI1	633332	3499.98	21.31	22.20	1.227	0.17	1.750	**2.148**
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 5	DSI4	633332	3499.98	25.70	26.70	1.259	-0.09	1.540	1.939
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	6mm	Ant 5	DSI4	633332	3499.98	25.70	26.70	1.259	0.16	0.301	0.379
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 5	DSI4	633332	3499.98	25.24	26.70	1.400	-0.01	0.949	1.328
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	DSI1	633332	3499.98	21.30	22.20	1.230	-0.01	1.610	1.981
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI4	633332	3499.98	25.24	26.70	1.400	0.03	1.360	1.903
	N77 Part 27Q(HPUE)	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 5	DSI4	633332	3499.98	24.21	25.70	1.409	0.06	1.320	1.860
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	DSI6/11	633332	3499.98	19.76	20.70	1.242	0.05	1.130	1.403
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	DSI6/11	633332	3499.98	19.70	20.70	1.259	-0.02	1.080	1.360
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 10	DSI1	656000	3840	20.19	21.20	1.262	-0.15	1.690	2.132
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 10	DSI1	656000	3840	20.19	21.20	1.262	0.02	0.856	1.080
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	6mm	Ant 10	DSI4	656000	3840	25.14	26.20	1.276	-0.16	0.480	0.613
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	12mm	Ant 10	DSI4	656000	3840	25.14	26.20	1.276	0.07	0.353	0.451
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 10	DSI1	656000	3840	20.15	21.20	1.274	-0.02	1.660	2.114
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 10	DSI1	656000	3840	20.15	21.20	1.274	-0.16	0.873	1.112
	N77 Part 27O(HPUE)	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 10	DSI1	656000	3840	20.10	21.20	1.288	0.18	1.530	1.971
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 10	DSI6/11	656000	3840	18.72	19.70	1.253	0.06	1.170	1.466
	N77 Part 27O(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 10	DSI6/11	656000	3840	18.72	19.70	1.253	0.02	0.601	0.753
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 10	DSI6/11	656000	3840	18.67	19.70	1.268	-0.05	1.180	1.496
	N77 Part 27O(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 10	DSI6/11	656000	3840	18.67	19.70	1.268	0.07	0.612	0.776
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 10	DSI1	633332	3499.98	20.18	21.20	1.265	-0.15	1.620	2.049
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 10	DSI1	633332	3499.98	20.18	21.20	1.265	-0.15	0.937	1.185
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	6mm	Ant 10	DSI4	633332	3499.98	25.13	26.20	1.279	-0.17	0.603	0.771
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	12mm	Ant 10	DSI4	633332	3499.98	25.13	26.20	1.279	-0.05	0.376	0.481
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 10	DSI1	633332	3499.98	20.13	21.20	1.279	-0.04	1.580	2.021
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 10	DSI1	633332	3499.98	20.13	21.20	1.279	0.13	0.923	1.181
	N77 Part 27Q(HPUE)	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 10	DSI1	633332	3499.98	20.07	21.20	1.297	-0.12	1.550	2.011
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 10	DSI6/11	633332	3499.98	18.68	19.70	1.265	0.05	1.140	1.442
	N77 Part 27Q(HPUE)	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 10	DSI6/11	633332	3499.98	18.68	19.70	1.265	-0.09	0.661	0.836
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 10	DSI6/11	633332	3499.98	18.66	19.70	1.271	0.03	1.160	1.474
	N77 Part 27Q(HPUE)	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 10	DSI6/11	633332	3499.98	18.66	19.70	1.271	0.01	0.655	0.832

<WLAN5GHz SAR>

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	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)
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 8	Full	54	5270	17.20	19.00	1.514	-0.16	0.317	0.482
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 8	Full	54	5270	17.20	19.00	1.514	-0.07	0.374	0.569
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 8	Full	54	5270	17.20	19.00	1.514	-0.02	0.086	0.131
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 8	Full	54	5270	17.20	19.00	1.514	0.07	0.102	0.155
104	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 8	Full	54	5270	17.20	19.00	1.514	-0.03	1.120	**1.704**
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 8	Full	62	5310	16.74	18.50	1.500	-0.12	1.060	1.598
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 9	Full	54	5270	17.52	19.00	1.406	0.11	0.740	1.046
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 9	Full	54	5270	17.52	19.00	1.406	-0.15	0.400	0.565
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Side	0mm	Ant 9	Full	54	5270	17.52	19.00	1.406	0.01	0.110	0.155
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 9	Full	54	5270	17.52	19.00	1.406	0.02	0.870	1.229
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 9	Full	54	5270	17.52	19.00	1.406	-0.17	0.119	0.168
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 9	Full	62	5310	16.85	18.50	1.462	-0.18	0.840	1.234
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 8	Power level 2/3	50	5250	14.59	16.00	1.384	0.09	0.203	0.283
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 8	Power level 2/3	50	5250	14.59	16.00	1.384	0.16	0.220	0.307
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 8	Power level 2/3	50	5250	14.59	16.00	1.384	-0.05	0.055	0.077
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 8	Power level 2/3	50	5250	14.59	16.00	1.384	-0.17	0.058	0.081
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 8	Power level 2/3	50	5250	14.59	16.00	1.384	-0.03	0.750	1.047
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 9	Power level 2/3	50	5250	14.48	16.00	1.419	0.1	0.365	0.523
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9	Power level 2/3	50	5250	14.48	16.00	1.419	-0.17	0.208	0.298
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 9	Power level 2/3	50	5250	14.48	16.00	1.419	-0.03	0.018	0.026
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 9	Power level 2/3	50	5250	14.48	16.00	1.419	0.07	0.476	0.682
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 9	Power level 2/3	50	5250	14.48	16.00	1.419	-0.17	0.087	0.125
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 8	Full	106	5530	17.51	19.00	1.409	-0.03	0.557	0.792
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 8	Full	106	5530	17.51	19.00	1.409	0.09	0.645	0.917
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 8	Full	106	5530	17.51	19.00	1.409	0.11	0.162	0.230
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 8	Full	106	5530	17.51	19.00	1.409	-0.05	0.191	0.272
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 8	Full	106	5530	17.51	19.00	1.409	-0.17	1.160	1.649
105	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 8	Full	122	5610	17.49	19.00	1.416	0.01	1.570	**2.243**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 9	Full	122	5610	17.59	19.00	1.384	0.16	0.593	0.828
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9	Full	122	5610	17.59	19.00	1.384	0.16	0.287	0.401
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 9	Full	122	5610	17.59	19.00	1.384	-	Na	Na
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 9	Full	122	5610	17.59	19.00	1.384	-0.13	0.725	1.012
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 9	Full	122	5610	17.59	19.00	1.384	0.08	0.079	0.110
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 9	Full	106	5530	17.29	19.00	1.483	0.1	0.815	1.219
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 8	Power level 2/3	114	5570	14.58	16.00	1.387	0.11	0.383	0.536
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 8	Power level 2/3	114	5570	14.58	16.00	1.387	-0.03	0.324	0.453
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 8	Power level 2/3	114	5570	14.58	16.00	1.387	-0.05	0.104	0.146
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 8	Power level 2/3	114	5570	14.58	16.00	1.387	0.01	0.095	0.133
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 8	Power level 2/3	114	5570	14.58	16.00	1.387	0.16	0.839	1.174
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 9	Power level 2/3	114	5570	14.66	16.00	1.361	-0.03	0.308	0.423
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9	Power level 2/3	114	5570	14.66	16.00	1.361	-0.17	0.169	0.232
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 9	Power level 2/3	114	5570	14.66	16.00	1.361	-	Na	Na
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 9	Power level 2/3	114	5570	14.66	16.00	1.361	0.09	0.507	0.696
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 9	Power level 2/3	114	5570	14.66	16.00	1.361	0.11	0.047	0.065

18.5 Repeated SAR Measurement

<1g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	GSM850	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	ANT 0	DSI5	189	836.4	27.08	28.00	1.236	-	1.000	0.06	0.853	1	1.054
2nd	GSM850	-	-	-	-	GPRS(4 Tx slots)	Left Cheek	0mm	ANT 0	DSI5	189	836.4	27.08	28.00	1.236	-	1.000	-0.03	0.834	1.023	1.031
1st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	ANT 2	DSI5	1413	1732.6	17.52	18.00	1.117	-	1.000	0.01	1.060	1	1.184
2nd	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	ANT 2	DSI5	1413	1732.6	17.52	18.00	1.117	-	1.000	0.13	0.997	1.063	1.114
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	ANT 2	DSI5	9538	1907.6	17.03	17.50	1.114	-	1.000	0.03	1.070	1	1.192
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	ANT 2	DSI5	9538	1907.6	17.03	17.50	1.114	-	1.000	-0.03	0.997	1.073	1.111
1st	LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	ANT 2	DSI5	27710	2310	17.74	18.50	1.191	-	1.000	0.07	1.000	1	1.191
2nd	LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	ANT 2	DSI5	27710	2310	17.74	18.50	1.191	-	1.000	0.15	0.994	1.006	1.184
1st	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	ANT 2	DSI5	40185	2549.5	17.77	18.50	1.183	62.9	1.006	0.11	1.000	1	1.190
2nd	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	ANT 2	DSI5	40185	2549.5	17.77	18.50	1.183	62.9	1.006	-0.03	0.967	1.034	1.151
1st	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	ANT 10	DSI5	55830	3609	24.09	25.00	1.233	62.9	1.006	0.09	0.862	1	1.069
2nd	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	ANT 10	DSI5	55830	3609	24.09	25.00	1.233	62.9	1.006	0.03	0.851	1.013	1.056
1st	N71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	ANT 0	DSI 5	136100	680.5	23.58	25.20	1.452	-	1.000	-0.06	0.814	1	1.182
2nd	N71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	ANT 0	DSI 5	136100	680.5	23.58	25.20	1.452	-	1.000	0.03	0.809	1.006	1.175
1st	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	ANT 5	DSI 5	633332	3499.98	14.71	15.70	1.256		1.000	-0.18	0.827	1	1.039
2nd	N77 Part 27Q(PC2/3)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	ANT 5	DSI 5	633332	3499.98	14.71	15.70	1.256		1.000	0.05	0.815	1.015	1.024
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 1	11	2462	15.45	16.50	1.274	97.06	1.030	0.04	0.852	1	1.118
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0mm	Ant 4	Power level 1	11	2462	15.45	16.50	1.274	97.06	1.030	0.13	0.824	1.034	1.081

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	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)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA II					RMC 12.2Kbps	Left Side	0mm	ANT 2	DSI1	9400	1880	23.00	23.50	1.122	-	1.000	0.15	2.230	1	2.502
2nd	WCDMA II					RMC 12.2Kbps	Left Side	0mm	ANT 2	DSI1	9400	1880	23.00	23.50	1.122	-	1.000	-0.05	2.120	1.052	2.379
1st	LTE Band 66	20M	QPSK	1	0	-	Left Side	0mm	ANT 2	DSI1	132322	1745	23.05	24.00	1.245	-	1.000	0.17	2.230	1	2.775
2nd	LTE Band 66	20M	QPSK	1	0	-	Left Side	0mm	ANT 2	DSI1	132322	1745	23.05	24.00	1.245	-	1.000	-0.06	2.120	1.052	2.638
1st	LTE Band 30	10M	QPSK	1	0	-	Left Side	0mm	ANT 2	DSI1	27710	2310	20.70	21.50	1.202	-	1.000	-0.15	2.290	1	2.753
2nd	LTE Band 30	10M	QPSK	1	0	-	Left Side	0mm	ANT 2	DSI1	27710	2310	20.70	21.50	1.202	-	1.000	0.19	2.170	1.055	2.609
1st	N7	40M	QPSK	1	1	DFT-15	Bottom Side	0mm	ANT 3	DSI4	507000	2535	23.27	24.20	1.239	-	1.000	0.13	2.210	1	2.738
2nd	N7	40M	QPSK	1	1	DFT-15	Bottom Side	0mm	ANT 3	DSI4	507000	2535	23.27	24.20	1.239	-	1.000	0.05	2.130	1.038	2.639

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥0.8W/kg.
2. Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 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.

19. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN5GHz	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	WWAN + NFC				Yes
5.	WLAN 5GHz + Bluetooth	Yes	Yes	Yes	Yes
6.	NFC + Bluetooth				Yes
7.	NFC + WLAN2.4GHz				Yes
8.	NFC + WLAN5GHz				Yes
9.	WWAN + WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
10.	WWAN + WLAN5GHz+ Bluetooth + NFC				Yes
11.	WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
12.	WWAN + WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
13.	WWAN + WLAN2.4GHz + NFC				Yes
14.	WAN + WLAN2.4GHz + WLAN5GHz + NFC				Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
3. WWAN above includes 5G NR bands.
4. For WLAN2.4GHz and WLAN5GHz support SISO and MIMO mode.
5. For EN-DC mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
6. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
7. 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).
8. WLAN2.4GHz and Bluetooth share the same antenna, and cannot transmit simultaneously.
9. According to the EUT characteristic, WLAN 5GHz and Bluetooth can transmit simultaneously.
10. According to the EUT characteristic, WLAN 5GHz and WLAN 2.4GHz can transmit simultaneously.
11. According to the EUT characteristic, NFC and WLAN 2.4GHz/5GHz/Bluetooth can transmit simultaneously.
12. 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.
13. Chose the worst zoom scan SAR of WLAN correspondingly for co-located with WWAN analysis.
14. All licensed modes share the same antenna part and cannot transmit simultaneously.
15. The Scaled SAR summation is calculated based on the same configuration and test position.
16. WWAN antenna always chose the worst position SAR among all WWAN bands base on head, hotspot, body and extremity to do co-located with WLAN/Bluetooth. It is the most conservatively evaluation.
17. Per KDB 447498 D04, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. 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 ≤ 0.04 for 1g SAR and SPLSR≤ 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.

19.1 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 ≤ 1.0,*

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

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

*x% * A + (100-x)% * B + C ≤ 1.0* (1)

x% * A + (100-x)% * B ≤ x% * max(A, B) + (100-x)% * max(A, B) ≤ max(A, B)

*x% * A + (100-x)% * B + C ≤ max(A, B) + C ≤ 1.0* (2)

if A + C ≤ 1.0 and B + C ≤ 1.0 can be proven, then “x% * A + (100-x)% * B + C ≤ 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, LTE1 + LTE2 + 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.

Above analysis is also apply to NR band UL MIMO, NR1 + NR2 + WLAN + BT simultaneous transmission, So UL MIMO no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of NR + WLAN + BT < 1.

19.2 Head Exposure Conditions

WWAN Band	Exposure Position	1	3	4	5	8	9	10	1+9	1+10	1+3	1+4	1+5	1+8	1+8+9	1+8+10
		WWAN	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 7	WLAN2.4GHz Ant 4+7	WLAN5GHz Ant 8+9	Bluetooth Ant 4	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed	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)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands	Right Cheek	0.909	0.208	0.289	0.263	0.311	0.042	0.180	0.95	1.09	1.12	1.20	1.17	1.22	1.26	1.40
	Right Tilted	0.876	0.272	0.024	0.208	0.365	0.056	0.004	0.93	0.88	1.15	0.90	1.08	1.24	1.30	1.25
	Left Cheek	0.785	0.457	0.126	0.545	0.589	0.130	0.049	0.92	0.83	1.24	0.91	1.33	1.37	1.50	1.42
	Left Tilted	0.605	0.407	0.039	0.288	0.568	0.078	0.007	0.68	0.61	1.01	0.64	0.89	1.17	1.25	1.18

WWAN Band	Exposure Position	1	5	8	9	10	1+5+8	1+8+9	1+8+10
		WWAN	WLAN2.4GHz Ant 4+7	WLAN5GHz Ant 8+9	Bluetooth Ant 4	Bluetooth Ant 7	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)
All Bands	Right Cheek	0.909	0.134	0.168	0.042	0.180	1.21	1.12	1.26
	Right Tilted	0.876	0.114	0.227	0.056	0.004	1.22	1.16	1.11
	Left Cheek	0.785	0.269	0.374	0.130	0.049	1.43	1.29	1.21
	Left Tilted	0.605	0.156	0.365	0.078	0.007	1.13	1.05	0.98

<MIMO Mode>

WWAN Band		Exposure Position	1	2	3	4	5	8	9	10	1+2+9	1+2+10	1+2+3	1+2+4	1+2+5	1+2+8	1+2+8+9	1+2+8+10
			FR1	FR1	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 7	WLAN2.4GHz Ant 4+7	WLAN5GHz Ant 8+9	Bluetooth Ant 4	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed	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)	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)
N41 ANT 3	N41 ANT 5	Right Cheek	0.361	0.572	0.208	0.289	0.263	0.311	0.042	0.180	0.98	1.11	1.14	1.22	1.20	1.24	1.29	1.42
		Right Tilted	0.172	0.654	0.272	0.024	0.208	0.365	0.056	0.004	0.88	0.83	1.10	0.85	1.03	1.19	1.25	1.20
		Left Cheek	0.387	0.425	0.457	0.126	0.545	0.589	0.130	0.049	0.94	0.86	1.27	0.94	1.36	1.40	**1.53**	1.45
		Left Tilted	0.193	0.476	0.407	0.039	0.288	0.568	0.078	0.007	0.75	0.68	1.08	0.71	0.96	1.24	1.32	1.24
N41 ANT 2	N41 ANT 6	Right Cheek	0.536	0.116	0.208	0.289	0.263	0.311	0.042	0.180	0.69	0.83	0.86	0.94	0.92	0.96	1.01	1.14
		Right Tilted	0.183	0.085	0.272	0.024	0.208	0.365	0.056	0.004	0.32	0.27	0.54	0.29	0.48	0.63	0.69	0.64
		Left Cheek	0.153	0.552	0.457	0.126	0.545	0.589	0.130	0.049	0.84	0.75	1.16	0.83	1.25	1.29	1.42	1.34
		Left Tilted	0.079	0.235	0.407	0.039	0.288	0.568	0.078	0.007	0.39	0.32	0.72	0.35	0.60	0.88	0.96	0.89

WWAN Band		Exposure Position	1	2	5	8	9	10	1+2+5+8	1+2+8+9	1+2+8+10
			FR1	FR1	WLAN2.4GHz Ant 4+7	WLAN5GHz Ant 8+9	Bluetooth Ant 4	Bluetooth Ant 7	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)
N41 ANT 3	N41 ANT 5	Right Cheek	0.361	0.572	0.134	0.168	0.042	0.180	1.24	1.14	1.28
		Right Tilted	0.172	0.654	0.114	0.227	0.056	0.004	1.17	1.11	1.06
		Left Cheek	0.387	0.425	0.269	0.374	0.130	0.049	1.46	1.32	1.24
		Left Tilted	0.193	0.476	0.156	0.365	0.078	0.007	1.19	1.11	1.04
N41 ANT 2	N41 ANT 6	Right Cheek	0.536	0.116	0.134	0.168	0.042	0.180	0.95	0.86	1.00
		Right Tilted	0.183	0.085	0.114	0.227	0.056	0.004	0.61	0.55	0.50
		Left Cheek	0.153	0.552	0.269	0.374	0.130	0.049	1.35	1.21	1.13
		Left Tilted	0.079	0.235	0.156	0.365	0.078	0.007	0.84	0.76	0.69

19.3 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	3	4	6	7	9	10	1+3+4+6+7	1+6+7+9	1+6+7+10
		WWAN	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 7	WLAN5GHz Ant 8	WLAN5GHz Ant 9	Bluetooth Ant 4	Bluetooth Ant 7	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)	1g SAR (W/kg)
All Bands	Front	0.568	0.284	0.176	0.185	0.159	0.023	0.028	1.37	0.94	0.94
	Back	0.720	0.319	0.183	0.219	0.130	0.028	0.021	1.57	1.10	1.09
	Left side	0.788	0.064	0.015	0.083				0.95	0.87	0.87
	Right side	0.652	0.265	0.351	0.089	0.231	0.031	0.108	**1.59**	1.00	1.08
	Top side	0.740	0.442	0.024	0.271	0.058	0.048		1.54	1.12	1.07
	Bottom side	0.750							0.75	0.75	0.75

<MIMO Mode>

WWAN Band		Exposure Position	1	2	3	4	6	7	9	10	1+2+3+4+6+7	1+2+6+7+9	1+2+6+7+10
			WWAN	FR1	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 7	WLAN5GHz Ant 8	WLAN5GHz Ant 9	Bluetooth Ant 4	Bluetooth Ant 7	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)	1g SAR (W/kg)	1g SAR (W/kg)
N41 ANT 3	N41 ANT 5	Front	0.384	0.291	0.284	0.176	0.185	0.159	0.023	0.028	1.48	1.04	1.05
		Back	0.439	0.301	0.319	0.183	0.219	0.130	0.028	0.021	1.59	1.12	1.11
		Left side	0.199	0.204	0.064	0.015	0.083				0.57	0.49	0.49
		Right side	0.120	0.072	0.265	0.351	0.089	0.231	0.031	0.108	1.13	0.54	0.62
		Top side		0.707	0.442	0.024	0.271	0.058	0.048		1.50	1.08	1.04
		Bottom side	0.750								0.75	0.75	0.75
N41 ANT 2	N41 ANT 6	Front	0.238	0.250	0.284	0.176	0.185	0.159	0.023	0.028	1.29	0.86	0.86
		Back	0.231	0.380	0.319	0.183	0.219	0.130	0.028	0.021	1.46	0.99	0.98
		Left side	0.681		0.064	0.015	0.083				0.84	0.76	0.76
		Right side		0.556	0.265	0.351	0.089	0.231	0.031	0.108	1.49	0.91	0.98
		Top side	0.053	0.156	0.442	0.024	0.271	0.058	0.048		1.00	0.59	0.54
		Bottom side									0.00	0.00	0.00

19.4 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	3	4	6	7	9	10	1+3+4+6+7	1+6+7+9	1+6+7+10
		WWAN	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 7	WLAN5GHz Ant 8	WLAN5GHz Ant 9	Bluetooth Ant 4	Bluetooth Ant 7	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)	1g SAR (W/kg)
All Bands	Front	0.601	0.135	0.080	0.139	0.095	0.005	0.012	1.05	0.84	0.85
	Back	0.799	0.168	0.117	0.297	0.086	0.027	0.032	1.47	1.21	1.21

<MIMO Mode>

WWAN Band		Exposure Position	1	2	3	4	6	7	9	10	1+2+3+4+6+7	1+2+6+7+9	1+2+6+7+10
			WWAN	FR1	WLAN2.4GHz Ant 4	WLAN2.4GHz Ant 7	WLAN5GHz Ant 8	WLAN5GHz Ant 9	Bluetooth Ant 4	Bluetooth Ant 7	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)	1g SAR (W/kg)	1g SAR (W/kg)
N41 ANT 3	N41 ANT 5	Front	0.111	0.192	0.135	0.080	0.139	0.095	0.005	0.012	0.75	0.54	0.55
		Back	0.136	0.263	0.168	0.117	0.297	0.086	0.027	0.032	1.07	0.81	0.81
N41 ANT 2	N41 ANT 6	Front	0.146	0.123	0.135	0.080	0.139	0.095	0.005	0.012	0.72	0.51	0.52
		Back	0.171	0.172	0.168	0.117	0.297	0.086	0.027	0.032	1.01	0.75	0.76

19.5 Product Specific Exposure Conditions

WWAN Band	Exposure Position	1	6	7	11	1+6+7+11
		WWAN	WLAN5GHz Ant 8	WLAN5GHz Ant 9	NFC	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	1g SAR (W/kg)
All Band	Front	2.124	0.536	0.523	0.001	3.18
	Back	2.159	0.453	0.298	0.023	2.93
	Left side	2.006	0.146	0.026	0.001	2.18
	Right side	2.260	0.133	0.696	0.001	3.09
	Top side	2.123	1.174	0.125	0.001	3.42
	Bottom side	2.738				2.74

<MIMO Mode>

WWAN Band		Exposure Position	1	2	6	7	11	1+2+6+7+11
			WWAN	FR1	WLAN5GHz Ant 8	WLAN5GHz Ant 9	NFC	Summed
			10g SAR (W/kg)	1g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	1g SAR (W/kg)
N41 ANT 3	N41 ANT 5	Front			0.536	0.523	0.001	1.06
		Back	1.318	1.398	0.453	0.298	0.023	**3.49**
		Left side			0.146	0.026	0.001	0.17
		Right side			0.133	0.696	0.001	0.83
		Top side		1.392	1.174	0.125	0.001	2.69
		Bottom side	1.278					1.28
N41 ANT 2	N41 ANT 6	Front	1.337		0.536	0.523	0.001	2.40
		Back	1.362	0.873	0.453	0.298	0.023	3.01
		Left side	1.584		0.146	0.026	0.001	1.76
		Right side		1.530	0.133	0.696	0.001	2.36
		Top side			1.174	0.125	0.001	1.30
		Bottom side						0.00

Note: 1. For WLAN2.4GHz/Bluetooth Product specific 10g stand-alone SAR is not required for a transmitter or antenna, due to 1g hotspot SAR is <1.2W/kg.

Test Engineer : Hank Huang, Kevin Xu, David Dai, Bin He

20. 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 ≤ 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.

21. 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 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

[7] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[8] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[9] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015

[10] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

[11] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[12] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.

[13] FCC KDB 616217 D04 v01r02, “SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers”, Oct 2015

[14] FCC KDB 447498 D04 v01, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Nov 2021

------THE END------

Appendix A. Plots of System Performance Check

The plots are shown as follows.