

FCC SAR Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2321-3, XT2321-5
FCC ID : IHDT56AJ3
STANDARD : FCC 47 CFR Part 2 (2.1093)

We, Sporton International Inc. (Kunshan), 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. (Kunshan), the test report shall not be reproduced except in full.



Approved by: Si Zhang



Sporton International Inc. (Kunshan)

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Table of Contents

1. Statement of Compliance 4
2. Administration Data 6
3. Guidance Applied 6
4. Equipment Under Test (EUT) Information 7
4.1 General Information 7
4.2 General LTE SAR Test and Reporting Considerations 10
4.3 General 5G NR SAR Test and Reporting Considerations 14
5. Smart Transmit feature for RF Exposure compliance 19
6. Proximity Sensor Triggering Test 23
7. RF Exposure Limits 26
7.1 Uncontrolled Environment 26
7.2 Controlled Environment 26
8. Specific Absorption Rate (SAR) 27
8.1 Introduction 27
8.2 SAR Definition 27
9. System Description and Setup 28
9.1 E-Field Probe 29
9.2 Data Acquisition Electronics (DAE) 29
9.3 Phantom 30
9.4 Device Holder 31
10. Measurement Procedures 32
10.1 Spatial Peak SAR Evaluation 32
10.2 Power Reference Measurement 33
10.3 Area Scan 33
10.4 Zoom Scan 34
10.5 Volume Scan Procedures 34
10.6 Power Drift Monitoring 34
11. Test Equipment List 35
12. System Verification 36
12.1 Tissue Simulating Liquids 36
12.2 Tissue Verification 36
12.3 System Performance Check Results 38
13. RF Exposure Positions 41
13.1 Ear and handset reference point 41
13.2 Definition of the cheek position 42
13.3 Definition of the tilt position 43
13.4 Body Worn Accessory 44
13.5 Product Specific 10g SAR Exposure 45
13.6 Wireless Router 45
14. Conducted RF Output Power (Unit: dBm) 46
15. Antenna Location 66
16. SAR Test Results 67
16.1 Head SAR 71
16.2 Hotspot SAR 95
16.3 Body Worn Accessory SAR 143
16.4 Product specific 10g SAR 178
16.5 Repeated SAR Measurement 190
16.6 TDD LTE and NR Linearity Data Analysis 192
17. Simultaneous Transmission Analysis 200
17.1 5G NR + LTE + WLAN + BT Sim-Tx analysis 201
17.2 Head Exposure Conditions 202
17.3 Hotspot Exposure Conditions 211
17.4 Body-Worn Accessory Exposure Conditions 238
17.5 Product specific 10g SAR Exposure Conditions 249
18. Supplemental tuner tests results 257
18.1 Supplemental Tuner Head & Body SAR Results 257
19. Uncertainty Assessment 258
20. References 259
Appendix A. Plots of System Performance Check
Appendix B. Plots of High SAR Measurement
Appendix C. DASy Calibration Certificate
Appendix D. Test Setup Photos
Appendix E. Conducted RF Output Power Table



1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2321-3, XT2321-5**, are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 5mm)	Body-worn (Separation 5mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	<0.10	0.83	0.78	1.59
		GSM1900	1.18	1.00	1.06	
	WCDMA	WCDMA II	1.25	1.21	1.26	
		WCDMA IV	1.24	1.12	1.25	
		WCDMA V	<0.10	0.92	0.92	
	LTE	LTE Band 7	1.25	1.23	1.26	
		LTE Band 12/17	0.30	0.54	0.54	
		LTE Band 13	1.22	0.79	0.79	
		LTE Band 14	1.15	0.78	0.78	
		LTE Band 25/2	1.24	1.15	1.26	
		LTE Band 26/5	0.91	0.98	1.05	
		LTE Band 30	1.26	1.25	1.25	
		LTE Band 66/4	1.25	1.24	1.26	
		LTE Band 71	<0.10	0.59	0.59	
		LTE Band 41/38	1.26	1.25	1.26	
		LTE Band 48	1.26	1.01	1.25	
	5G NR	FR1 n7	1.24	1.24	1.25	
		FR1 n12	0.15	0.48	0.48	
		FR1 n13	<0.10	0.49	0.49	
		FR1 n14	0.12	0.55	0.55	
		FR1 n25/n2	1.25	1.24	1.26	
		FR1 n26/n5	0.91	0.90	0.90	
		FR1 n30	1.26	1.25	1.25	
FR1 n66		1.24	1.25	1.25		
FR1 n70		1.26	0.99	0.97		
FR1 n71		0.13	0.37	0.37		
FR1 n41/n38		1.23	1.23	1.25		
FR1 n48	1.26	1.00	1.26			
FR1 n77/78	1.24	1.14	1.34			
DTS	WLAN	2.4GHz WLAN	1.20	0.35	1.37	1.59
NII		5GHz WLAN	1.19	0.34	0.77	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.18	0.18	<0.10	1.59



Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	WCDMA	WCDMA II	3.02	3.68
		WCDMA IV	2.66	
	LTE	LTE Band 7	3.10	
		LTE Band 25/2	2.87	
		LTE Band 30	3.10	
		LTE Band 66/4	2.97	
		LTE Band 41/38	3.13	
		LTE Band 48	3.08	
	5G NR	FR1 n7	3.11	
		FR1 n25/2	2.34	
		FR1 n30	3.08	
		FR1 n66	2.76	
		FR1 n70	1.82	
		FR1 n41/n38	3.14	
		FR1 n48	3.14	
	FR1 n77/n78	3.11		
DTS	WLAN	2.4GHz WLAN	3.48	3.68
NII		5GHz WLAN	1.44	3.52
Date of Testing:			2022/12/23 ~ 2023/2/22	

Remark:

- 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.
- This device supports 5GNR n78/n38/n5/n2 and n77/n41/n26/n25. Since the supported frequency span for 5GNR n78/n38/n5/n2 falls completely within the supports frequency span for n77/n41/n26/n25, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n77/n41/n26/n25.

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 (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) 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. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158 FAX : +86-512-57900958		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR02-KS	CN1257	314309

Applicant	
Company Name	Motorola Mobility LLC
Address	222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

Manufacturer	
Company Name	Motorola Mobility LLC
Address	222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

3. Guidance Applied

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

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- 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



4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2321-3, XT2321-5
FCC ID	IHDT56AJ3
IMEI Code	358041760025611
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 14: 788 MHz ~ 798 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 n12 : 699 MHz ~ 716 MHz 5G NR n13 : 777 MHz ~ 787 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 6GHz U-NII-5: 5925 MHz ~ 6425 MHz WLAN 6GHz U-NII-6: 6425 MHz ~ 6525 MHz WLAN 6GHz U-NII-7: 6525 MHz ~ 6875 MHz WLAN 6GHz U-NII-8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps



	HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is not 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 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	DVT2
SW Version	TTZ 33.50
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN 6GHz has no hotspot function.
4. The 2.4GHz/5GHz/6GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.
5. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
6. For dual SIM card mobile has single SIM slots + eSIM (electronic SIM) and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
7. The device implements the power management, Hall sensor and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
8. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld.
9. For some WWAN bands, sensor on power level is higher than hotspot power level, so front/back sensor on SAR can represent hotspot conservatively.
10. This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the WCDMA, LTE and 5G NR modes. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner and supplemental data for additional information can be referred to section 18 and appendix F.
11. This device supports HPUE for LTE Band 41 and 5G NR n41/n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
12. 5G NR n41/n77/n78/n48 supports UL MIMO, and 5G NR n78/n48 UL MIMO mode only supports CP-OFDM Modulation.
13. The device supports HPUE (power class 2) under SISO mode and HPUE (power class 1.5) under UL MIMO mode for 5G NR n41/n77.
14. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
15. 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.
16. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
17. 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.

18. 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.
19. The two model names XT2321-3, XT2321-5 are the same product except model name different for market segment.
20. SAR and Power density test report for WLAN 6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth always chose higher SAR of WLAN5G U-NII-1/2A/2C/3 and U-NII-5/6/7/8.
21. The device support DBS (Dual Band Simultaneous) function, when the device 2.4GHz and 5GHz or 6GHz transmit at the same time the module will limit different output power for simultaneous transmission compliance.
22. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.
23. This device has NFC function and the NFC SAR report will be separately submitted.

<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
	n12	FDD	15	5, 10, 15
	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, 80, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n78	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n12	FDD	15	5, 10, 15
	n13	FDD	15	5, 10
	n14	FDD	15	5, 10
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n26	FDD	15	5, 10, 15, 20
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n70	FDD	15	5, 10, 15
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 25, 30
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n48	TDD	30	10, 20, 30, 40
	n77	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100



4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	IHDT56AJ3																																																														
Equipment Name	Mobile Cellular Phone																																																														
Operating Frequency Range of each LTE transmission band	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 14: 788 MHz ~ 798 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																																																														
Channel Bandwidth	LTE Band 2: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12: 1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 14: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 25: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 30: 5MHz, 10MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66: 1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz																																																														
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM																																																														
LTE Voice / Data requirements	Voice and Data																																																														
LTE Release Version	R16, Cat18																																																														
CA Support	Supported, Uplink and Downlink																																																														
LTE MPR permanently built-in by design	<p align="center">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</p> <table border="1"> <thead> <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> </thead> <tbody> <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" style="text-align: center;">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>	Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
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256 QAM	≥ 1						≤ 5																																																								
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)																																																														
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																														
Power reduction applied to satisfy SAR compliance	Yes, when operating in Proximity sensors/receiver/hotspot detect mechanism, head/body-worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 14.																																																														
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.																																																														
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-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.																																																														



Transmission (H, M, L) channel numbers and frequencies in each LTE band													
LTE Band 2													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860	
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900	
LTE Band 4													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720	
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745	
LTE Band 5													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	20407	824.7	20415	825.5	20425	826.5	20450	829	20450	829	20450	829	
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	
H	20643	848.3	20635	847.5	20625	846.5	20600	844	20600	844	20600	844	
LTE Band 7													
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510	
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560	
LTE Band 12													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704	
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711	
LTE Band 13													
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #
L	23205		779.5		23230		782		23230		782		23230
M	23230		782		23230		782		23230		782		23230
H	23255		784.5		23230		782		23230		782		23230
LTE Band 14													
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz
	Channel #		Channel #		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #
L	23305		790.5		23330		793		23330		793		23330
M	23330		793		23330		793		23330		793		23330
H	23355		795.5		23330		793		23330		793		23330
LTE Band 17													
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)		Channel #		Freq. (MHz)		Channel #
L	23755		706.5		23780		709		23780		709		23780
M	23790		710		23790		710		23790		710		23790
H	23825		713.5		23800		711		23800		711		23800
LTE Band 25													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860	
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905	
LTE Band 26													
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5	26790	824.5	
M	26865	831.5	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	26940	838.5	



LTE Band 30																
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz				Bandwidth 20 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	27685		2307.5		27710		2310		27710		2310					
M	27710		2310													
H	27735		2312.5													
LTE Band 38																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580	37825	2577.5	37850	2580				
M	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595				
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610	38175	2612.5	38150	2610				
LTE Band 41																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593				
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680	41515	2682.5	41490	2680				
LTE Band 66																
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720				
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745				
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770				
LTE Band 71																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	133147	665.5	133172	668	133197	670.5	133222	673	133197	670.5	133222	673				
M	133247	675.5	133272	678	133297	680.5	133322	683	133297	680.5	133322	683				
H	133447	695.5	133422	693	133397	690.5	133372	688	133397	690.5	133372	688				
LTE Band 48																
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560	55315	3557.5	55340	3560				
LM	55810	3607	55815	3607.5	55820	3608	55830	3609	55820	3608	55830	3609				
MH	56170	3643	56165	3642.5	56160	3642	56150	3641	56160	3642	56150	3641				
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690	56665	3692.5	56640	3690				

<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 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 17			Yes	Yes		
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	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	Head	Body Worn	Body Worn&Hotspot	Body Worn	Body Worn&Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	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 2	Ant 0	24	24	24	24	24	24	24	24	24	24
LTE Band 25	Ant 0	24	24	24	24	24	24	24	24	24	24
LTE Band 5	Ant 0	24	24	24	24	24	23.7	24	24	24	24
LTE Band 26	Ant 0	24	24	24	24	24	23.7	24	24	24	24
LTE Band 17	Ant 0	24	24	24	24	24	24	24	24	24	24
LTE Band 12	Ant 0	24	24	24	24	24	24	24	24	24	24
LTE Band 4	Ant 0	24	24	23.5	22.5	23	21.9	24	24	24	24
LTE Band 66	Ant 0	24	24	23.5	22.5	23	21.9	24	24	24	24
LTE Band 38	Ant 0	22	22	22	20.6	22	22	22	22	22	22
LTE Band 41	Ant 0	24	24	23	20.6	23.5	22.2	24	24	24	24

Band	Antenna	Head	Head	Body Worn	Body Worn&Hotspot	Body Worn	Body Worn&Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	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 2	Ant 1	22	22	22	22	22	22	22	22	22	22
LTE Band 25	Ant 1	22	22	22	22	22	22	22	22	22	22
LTE Band 5	Ant 1	22	22	22	22	22	22	22	22	22	22
LTE Band 26	Ant 1	22	22	22	22	22	22	22	22	22	22
LTE Band 17	Ant 1	23	23	23	23	23	23	23	23	23	23
LTE Band 12	Ant 1	23	23	23	23	23	23	23	23	23	23
LTE Band 4	Ant 1	22	22	22	22	22	22	22	22	22	22
LTE Band 66	Ant 1	22	22	22	22	22	22	22	22	22	22
LTE Band 38	Ant 1	23	23	22	21.2	23	21.9	23	23	23	23
LTE Band 41	Ant 1	24	24	22	21.2	23.5	21.9	24	24	24	24

Band	Antenna	Head	Head	Body Worn	Body Worn&Hotspot	Body Worn	Body Worn&Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	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 2	Ant 2	21	20	22	21.1	22	22	22	22	22	22
LTE Band 25	Ant 2	21	20	24	21.1	24	22.7	24	24	24	24
LTE Band 5	Ant 2	23	23	23	23	23	23	23	23	23	23
LTE Band 26	Ant 2	23	23	23	23	23	23	23	23	23	23
LTE Band 17	Ant 2	24	24	24	24	24	24	24	24	24	24
LTE Band 12	Ant 2	24	24	24	24	24	24	24	24	24	24
LTE Band 4	Ant 2	22	22	22	21.2	22	22	22	22	22	22
LTE Band 66	Ant 2	22	22	22	21.2	22	22	22	22	22	22
LTE Band 38	Ant 2	19.2	18.1	18.2	17.6	23	19.9	22.4	22	23	23
LTE Band 41	Ant 2	19.2	18.1	18.2	17.6	23.4	19.9	22.4	22	23.6	23.4

Band	Antenna	Head	Head	Body Worn	Body Worn&Hotspot	Body Worn	Body Worn&Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	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 2	Ant 3	19.6	18.8	24	21.3	24	22.8	24	24	24	24
LTE Band 25	Ant 3	19.6	18.8	24	21.3	24	22.8	24	24	24	24
LTE Band 4	Ant 3	21.4	20.2	24	21.8	24	21.1	24	24	24	24
LTE Band 66	Ant 3	21.4	20.2	24	21.8	24	21.1	24	24	24	24
LTE Band 38	Ant 3	21.1	20	22	20.6	24	23	23.7	23.1	24	24
LTE Band 41	Ant 3	21.1	20	22	20.6	24	23	23.7	23.1	24	24

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR 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 n12 : 699 MHz ~ 716 MHz 5G NR n13 : 777 MHz ~ 787 MHz 5G NR n14 : 788 MHz ~ 798 MHz 5G NR n25 : 1850 MHz ~ 1915 MHz 5G NR n26 : 814 MHz ~ 849 MHz 5G NR n30 : 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n70 : 1695 MHz ~ 1710 MHz 5G NR n71 : 663 MHz ~ 698 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n48 : 3550 MHz ~ 3700 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 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 B5/7/12/13/14/30/66/71
LTE Anchor Bands for n5	LTE B2/7/30/48/66
LTE Anchor Bands for n7	LTE B2/5/12/66
LTE Anchor Bands for n12	LTE B2/66
LTE Anchor Bands for n25	LTE B7/12/26/66
LTE Anchor Bands for n30	LTE B2/5/12/14/66
LTE Anchor Bands for n41	LTE B2/4/12/25/26/66/71
LTE Anchor Bands for n66	LTE B2/5/7/12/13/14/30/48/71
LTE Anchor Bands for n71	LTE B2/7/48/66
LTE Anchor Bands for n77	LTE B2/5/7/12/13/14/25/30/66
LTE Anchor Bands for n78	LTE B2/4/5/7/12/13/25/66/71

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 12						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5
M	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5

NR Band 13				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	155900	779.5	156400	782
M	156400	782		
H	156900	784.5		

NR Band 14				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	158100	790.5	158600	793
M	158600	793		
H	159100	795.5		

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	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379000	1895

NR Band 26								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	163300	816.5	163800	819	164300	821.5	164800	824
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5
H	169300	846.5	168800	844	168300	841.5	167800	839

NR Band 30				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	461500	2307.5	462000	2310
M	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 70						
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	339500	1697.5	340000	1700	340500	1702.5
M	340500	1702.5	340500	1702.5		
H	341500	1707.5	341000	1705		

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 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515004	2575.02	515502	2577.51	516000	2580	516504	2582.52	517002	2585.01
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	521496	2607.48	520998	2604.99

NR Band 41																
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	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
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	529998	2649.99	528996	2644.98	528000	2640

NR Band 48								
	Bandwidth 10MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637000	3555	637334	3560.01	637668	3565.02	638000	3570
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646332	3694.98	646000	3690	645666	3684.99	645332	3679.98

NR Band 77																								
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	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	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664666	3970.02	664500	3967.5	664332	3965.01	664000	3960	663668	3955.02	663332	3950.01	663000	3945	662666	3940.02	662332	3935.01	662000	3930

NR Band 78																								
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652834	3792.51	652668	3790.02	652500	3787.5	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

For <3450 MHz ~ 3550 MHz >

NR Band 77																								
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	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	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3505.02		

NR Band 78																								
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	630334	3455.01	630500	3457.5	630668	3460.02	630834	3462.51	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	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635832	3537.48	635666	3534.99	635332	3529.98	635000	3525	634666	3520.02	634334	3515.01	634000	3510	633666	3505.02		



<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

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n5	FDD	15	5,10,15,20
	n26	FDD	15	5,10,15,20
SA	n5	FDD	15	5,10,15,20
	n26	FDD	15	5,10,15,20

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

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n77	TDD	30	10,15,20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10,15,20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n77	TDD	30	10,15,20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10,15,20, 30, 40, 50, 60, 70, 80, 90, 100

2) NR Bands Tune up:

Band	Antenna	Head	Head	Body Worn	Body Worn&Hotspot	Body Worn	Body Worn&Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	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	
5G NR n2	Ant 0	24	24	24	24	24	24	24	24	24	24
5G NR n25	Ant 0	24	24	24	24	24	24	24	24	24	24
5G NR n5	Ant 0	24	24	24	24	24	24	24	24	24	24
5G NR n26	Ant 0	24	24	24	24	24	24	24	24	24	24
5G NR n38	Ant 0	23	23	21.1	19.9	21.3	19.2	22.3	22.3	23	23
5G NR n41	Ant 0	23	23	21.1	19.9	21.3	19.2	22.3	22.3	23	23
5G NR n77	Ant 0	24	24	24	24	24	24	24	24	24	24
5G NR n78	Ant 0	24	24	24	24	24	24	24	24	24	24
5G NR n77 PC2	Ant 0	27	27	27	27	27	27	27	27	27	27
5G NR n78 PC2	Ant 0	27	27	27	27	27	27	27	27	27	27



Band	Antenna	Head	Head	Body Worn	Body Worn & Hotspot	Body Worn	Body Worn & Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	
		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
5G NR n2	Ant 1	23	23	23	23	23	21.6	23	23	23	23
5G NR n25	Ant 1	23	23	23	23	23	21.6	23	23	23	23
5G NR n5	Ant 1	23	23	23	23	23	23	23	23	23	23
5G NR n26	Ant 1	23	23	23	23	23	23	23	23	23	23
5G NR n38	Ant 1	23	23	21	20.2	22.7	20.6	23	23	23	23
5G NR n41	Ant 1	23	23	21	20.2	22.7	20.6	23	23	23	23
5G NR n77	Ant 1	24	24	24	24	24	23.2	24	24	24	24
5G NR n78	Ant 1	24	24	24	24	24	23.2	24	24	24	24
5G NR n77 PC2	Ant 1	27	27	27	27	27	26.2	27	27	27	27
5G NR n78 PC2	Ant 1	27	27	27	27	27	26.2	27	27	27	27

Band	Antenna	Head	Head	Body Worn	Body Worn & Hotspot	Body Worn	Body Worn & Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	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
5G NR n2	Ant 2	19.7	18.5	23	21.9	23	22.1	23	23	23	23
5G NR n25	Ant 2	19.7	18.5	23	21.9	23	22.1	23	23	23	23
5G NR n38	Ant 2	14.9	14.5	16.9	14.7	18.3	15.5	20	19.5	23	23
5G NR n41	Ant 2	14.9	14.5	16.9	14.7	18.3	15.5	20	19.5	23	23
5G NR n77	Ant 2	17.2	16.2	20.6	16.6	21.4	18.2	20.6	20	24	24
5G NR n78	Ant 2	17.2	16.2	20.6	16.6	21.4	18.2	20.6	20	24	24
5G NR n77 PC2	Ant 2	20.2	19.2	23.6	19.6	24.4	21.2	23.6	23	27	27
5G NR n78 PC2	Ant 2	20.2	19.2	23.6	19.6	24.4	21.2	23.6	23	27	27

Band	Antenna	Head	Head	Body Worn	Body Worn & Hotspot	Body Worn	Body Worn & Hotspot	Extremity	Extremity	Sensor Off	Default
		DSI 2 Standalone	DSI 2 Simultaneous	DSI 3 Standalone	DSI 3 Simultaneous	DSI 5 Standalone	DSI 5 Simultaneous	DSI 6 Standalone	DSI 6 Simultaneous	DSI4	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
5G NR n2	Ant 3	19.8	18.2	22.8	21.7	24	22.2	24	24	24	24
5G NR n25	Ant 3	19.8	18.2	22.8	21.7	24	22.2	24	24	24	24
5G NR n38	Ant 3	18.4	17.5	22.7	22.2	24	23	23.1	22.6	24	24
5G NR n41	Ant 3	18.4	17.5	22.7	22.2	24	23	23.1	22.6	24	24
5G NR n77	Ant 3	16.8	16.1	20.9	17.1	20	16.7	20.9	20.5	24	24
5G NR n78	Ant 3	16.8	16.1	20.9	17.1	20	16.7	20.9	20.5	24	24
5G NR n77 PC2	Ant 3	19.8	19.1	23.9	20.1	23	19.7	23.9	23.5	27	27
5G NR n78 PC2	Ant 3	19.8	19.1	23.9	20.1	23	19.7	23.9	23.5	27	27

5. Smart Transmit feature for RF Exposure compliance

The 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 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.

Note that WLAN/BT operations are not enabled with Smart Transmit.

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>

Item	Uncertainty dB (k=2)
Total uncertainty	1.5

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

$$SAR_{design_target} < SAR_{regulatory_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$



The Smart Transmit algorithm maintains the time-averaged transmit power, in turn, time-averaged RF exposure of SAR_design_target, below the predefined time-averaged power limit, for each characterized technology and band.

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)>

Band	Antenna	Head DSI 2	Head DSI 2	Body Worn DSI 3	Body Worn & Hotspot DSI 3	Body Worn DSI 5	Body Worn & Hotspot DSI 5	Extremity DSI 6	Extremity DSI 6	Sensor Off DSI 4	Pmax
		Standalone	Simultaneous	Standalone	Simultaneous	Standalone	Simultaneous	Standalone	Simultaneous		
GSM850	Ant 0	38.9	38.9	24.7	24.7	27.4	25.5	24.7	24.7	24.7	24.7
GSM850	Ant 1	42.2	42.2	22.7	22.7	25.6	25.6	22.7	22.7	22.7	22.7
GSM1900	Ant 0	35.5	35.5	19.2	19.2	23.2	22.2	19.2	19.2	19.2	19.2
GSM1900	Ant 1	49.1	49.1	19.2	19.2	22.7	21.0	19.2	19.2	19.2	19.2
GSM1900	Ant 2	22.6	21.6	19.7	19.7	24.0	22.1	19.7	19.7	19.7	19.7
GSM1900	Ant 3	19.1	17.8	21.2	20.6	23.5	21.0	21.2	21.2	21.2	21.2
WCDMA II	Ant 0	31.8	31.8	21.1	21.1	20.7	20.7	23.0	23.0	21.0	21.0
WCDMA II	Ant 1	35.2	35.2	21.5	21.5	22.4	21.3	22.6	22.6	22.0	22.0
WCDMA II	Ant 2	19.1	18.2	21.6	20.7	21.8	21.6	21.9	21.9	22.0	22.0
WCDMA II	Ant 3	18.9	17.8	23.3	20.5	23.5	22.0	23.3	23.3	23.0	23.0
WCDMA IV	Ant 0	31.1	31.1	21.0	21.0	20.5	20.5	21.0	21.0	21.0	21.0
WCDMA IV	Ant 1	34.7	34.7	21.4	21.4	21.5	21.4	22.0	22.0	22.0	22.0
WCDMA IV	Ant 2	21.5	20.7	22.0	21.8	23.8	22.8	22.0	22.0	22.0	22.0
WCDMA IV	Ant 3	19.7	18.9	23.0	20.4	23.5	20.7	23.0	23.0	23.0	23.0
WCDMA V	Ant 0	35.6	35.6	23.0	23.0	27.7	26.6	23.0	23.0	23.0	23.0
WCDMA V	Ant 1	35.1	35.1	22.0	22.0	29.7	28.7	22.0	22.0	22.0	22.0
LTE Band 25(2)	Ant 0	32.1	32.1	23.0	23.0	24.1	23.1	23.0	23.0	23.0	23.0
LTE Band 25(2)	Ant 1	36.4	36.4	21.5	21.5	21.3	21.3	24.6	24.6	21.0	21.0
LTE Band 2	Ant 2	20.0	19.0	23.2	20.1	23.7	21.7	24.8	24.8	23.0	21.0
LTE Band 25	Ant 2	20.0	19.0	23.2	20.1	23.7	21.7	24.8	24.8	23.0	23.0
LTE Band 25(2)	Ant 3	18.6	17.8	23.1	20.3	23.0	21.8	23.2	23.0	23.0	23.0
LTE Band 66(4)	Ant 0	33.1	33.1	22.5	21.5	22.0	20.9	24.4	24.4	23.0	23.0
LTE Band 66(4)	Ant 1	34.2	34.2	21.3	21.3	21.4	21.2	24.2	24.2	21.0	21.0
LTE Band 66(4)	Ant 2	21.3	21.3	22.8	20.2	24.1	23.0	25.7	25.7	21.0	21.0
LTE Band 66(4)	Ant 3	20.4	19.2	23.0	20.8	23.2	20.1	23.2	23.2	23.0	23.0
LTE Band 26(5)	Ant 0	32.7	32.7	23.0	23.0	23.7	22.7	23.0	23.0	23.0	23.0
LTE Band 26(5)	Ant 1	34.1	34.1	21.0	21.0	23.9	22.9	21.0	21.0	21.0	21.0
LTE Band 26(5)	Ant 2	23.3	22.3	22.0	22.0	29.1	25.9	22.0	22.0	22.0	22.0
LTE Band 7	Ant 0	34.3	34.3	22.6	20.9	21.0	20.7	23.1	23.1	21.0	21.0
LTE Band 7	Ant 1	35.6	35.6	20.5	19.7	20.8	19.1	22.0	22.0	22.0	22.0
LTE Band 7	Ant 2	13.4	12.2	16.1	14.1	18.7	16.1	19.1	18.7	21.0	21.0
LTE Band 7	Ant 3	18.6	17.4	22.9	21.9	24.0	22.9	23.6	23.6	23.0	23.0
LTE Band 12(17)	Ant 0	31.5	31.5	23.0	23.0	27.6	26.5	23.0	23.0	23.0	23.0
LTE Band 12(17)	Ant 1	32.9	32.9	22.0	22.0	27.9	26.8	22.0	22.0	22.0	22.0
LTE Band 12(17)	Ant 2	29.1	28.1	23.0	23.0	31.8	26.8	23.0	23.0	23.0	23.0
LTE Band 13	Ant 0	32.3	32.3	23.0	23.0	27.0	26.0	23.0	23.0	23.0	23.0
LTE Band 13	Ant 1	34.9	34.9	22.0	22.0	28.4	27.4	22.0	22.0	22.0	22.0
LTE Band 13	Ant 2	23.1	22.6	23.0	23.0	28.3	28.3	23.0	23.0	23.0	23.0
LTE Band 14	Ant 0	31.3	31.3	23.0	23.0	25.0	24.0	23.0	23.0	23.0	23.0
LTE Band 14	Ant 1	33.0	33.0	22.0	22.0	26.0	24.9	22.0	22.0	22.0	22.0
LTE Band 14	Ant 2	23.6	22.6	23.0	23.0	28.5	25.3	23.0	23.0	23.0	23.0
LTE Band 30	Ant 0	37.4	37.4	21.0	19.2	23.2	20.8	22.6	22.6	23.0	23.0
LTE Band 30	Ant 1	35.3	35.3	20.4	20.3	21.4	19.9	24.4	24.4	22.0	22.0
LTE Band 30	Ant 2	14.1	13.1	16.8	14.5	20.3	17.1	20.5	19.7	21.0	21.0
LTE Band 30	Ant 3	19.1	18.3	23.0	22.0	24.2	23.2	25.8	25.8	23.0	23.0
LTE Band 71	Ant 0	34.2	34.2	23.0	23.0	26.3	25.2	23.0	23.0	23.0	23.0



LTE Band 71	Ant 1	34.9	34.9	22.0	22.0	28.8	27.7	22.0	22.0	22.0	22.0
LTE Band 38 PC3	Ant 0	33.8	33.8	20.0	17.6	20.5	19.2	21.4	21.4	21.4	19.0
LTE Band 41 PC3	Ant 0	33.8	33.8	20.0	17.6	20.5	19.2	21.4	21.4	21.4	21.0
LTE Band 41 PC2	Ant 0	33.8	33.8	20.0	17.6	20.5	19.2	21.4	21.4	21.4	21.4
LTE Band 38 PC3	Ant 1	35.1	35.1	19.0	18.2	20.5	18.9	23.5	23.5	22.4	20.0
LTE Band 41 PC3	Ant 1	35.1	35.1	19.0	18.2	20.5	18.9	23.5	23.5	22.4	21.0
LTE Band 41 PC2	Ant 1	35.1	35.1	19.0	18.2	20.5	18.9	23.5	23.5	22.4	22.4
LTE Band 38 PC3	Ant 2	16.2	15.1	15.2	14.6	20.4	16.9	19.4	19.0	21.9	20.0
LTE Band 41 PC3	Ant 2	16.2	15.1	15.2	14.6	20.4	16.9	19.4	19.0	21.9	21.0
LTE Band 41 PC2	Ant 2	16.2	15.1	15.2	14.6	20.4	16.9	19.4	19.0	21.9	21.9
LTE Band 41 PC3(38 PC3)	Ant 3	18.1	17.0	19.2	17.6	22.6	20.0	20.7	20.1	21.9	21.0
LTE Band 41 PC2	Ant 3	18.1	17.0	19.2	17.6	22.6	20.0	20.7	20.1	21.9	21.9
LTE Band 48	Ant 0	42.1	42.1	20.0	20.0	26.7	25.7	20.0	20.0	20.0	20.0
LTE Band 48	Ant 1	48.2	48.2	21.0	21.0	25.3	22.0	21.0	21.0	21.0	21.0
LTE Band 48	Ant 2	16.8	15.7	20.4	16.6	19.7	16.9	20.4	20.4	18.0	18.0
LTE Band 48	Ant 3	16.1	15.0	20.4	15.3	18.1	13.4	20.4	19.7	21.0	21.0
5G NR n5	Ant 2	24.4	24.4	23.0	23.0	30.4	28.5	23.0	23.0	23.0	23.0
5G NR n7	Ant 0	37.2	37.2	22.0	21.5	22.9	21.1	22.0	22.0	22.0	22.0
5G NR n7	Ant 1	40.3	40.3	19.7	19.4	20.1	19.6	22.5	22.5	22.0	22.0
5G NR n7	Ant 2	12.7	12.2	16.6	14.6	17.5	14.3	20.6	19.9	22.0	22.0
5G NR n7	Ant 3	17.9	16.1	22.5	21.4	23.6	22.1	22.5	22.1	23.0	23.0
5G NR n12	Ant 0	32.1	32.1	23.0	23.0	33.7	32.7	23.0	23.0	23.0	23.0
5G NR n12	Ant 1	35.0	35.0	22.0	22.0	28.8	27.8	22.0	22.0	22.0	22.0
5G NR n13	Ant 0	34.4	34.4	23.0	23.0	29.6	28.6	23.0	23.0	23.0	23.0
5G NR n13	Ant 1	35.1	35.1	22.0	22.0	30.9	29.8	22.0	22.0	22.0	22.0
5G NR n14	Ant 0	33.3	33.3	23.0	23.0	26.7	25.7	23.0	23.0	23.0	23.0
5G NR n14	Ant 1	35.3	35.3	22.0	22.0	30.6	29.6	22.0	22.0	22.0	22.0
5G NR n25 (2)	Ant 0	33.2	33.2	23.0	23.0	27.7	23.6	23.0	23.0	23.0	23.0
5G NR n25 (2)	Ant 1	39.2	39.2	22.1	22.1	23.6	20.6	24.9	24.9	22.0	22.0
5G NR n25 (2)	Ant 2	18.7	17.5	23.6	20.9	23.0	21.1	24.1	24.1	22.0	22.0
5G NR n25 (2)	Ant 3	18.8	17.2	21.8	20.7	23.3	21.2	24.2	24.2	23.0	23.0
5G NR n26 (5)	Ant 0	33.5	33.5	23.0	23.0	26.2	25.2	23.0	23.0	23.0	23.0
5G NR n26 (5)	Ant 1	33.7	33.7	22.0	22.0	27.1	26.1	22.0	22.0	22.0	22.0
5G NR n30	Ant 0	42.2	42.2	24.2	22.9	21.1	19.5	26.4	23.0	23.0	23.0
5G NR n30	Ant 1	36.5	36.5	19.9	19.9	21.0	20.2	22.9	22.0	22.0	22.0
5G NR n30	Ant 2	14.6	13.5	16.4	14.5	18.1	14.6	19.9	19.6	22.0	22.0
5G NR n30	Ant 3	19.0	17.3	22.9	21.2	23.4	22.7	25.0	24.9	23.0	23.0
5G NR n66	Ant 0	32.4	32.4	23.0	23.0	21.9	21.4	23.0	23.0	23.0	23.0
5G NR n66	Ant 1	37.7	37.7	21.8	21.8	22.8	21.8	22.0	22.0	22.0	22.0
5G NR n66	Ant 2	20.0	19.0	22.0	22.0	24.6	20.5	22.0	22.0	22.0	22.0
5G NR n66	Ant 3	19.6	18.8	23.8	20.5	25.9	22.4	24.9	24.4	23.0	23.0
5G NR n70	Ant 0	32.4	32.4	21.0	21.0	25.0	24.0	21.0	21.0	21.0	21.0
5G NR n70	Ant 1	36.4	36.4	22.0	22.0	23.5	21.6	22.0	22.0	22.0	22.0
5G NR n70	Ant 2	21.4	20.0	22.0	22.0	23.6	21.1	22.0	22.0	22.0	22.0
5G NR n70	Ant 3	21.2	20.1	24.7	20.7	25.6	22.5	24.8	24.3	23.0	23.0
5G NR n71	Ant 0	32.7	32.7	23.0	23.0	30.5	29.5	23.0	23.0	23.0	23.0
5G NR n71	Ant 1	36.3	36.3	22.0	22.0	28.7	27.6	22.0	22.0	22.0	22.0
5G NR n41 PC3(38 PC3)	Ant 0	34.2	34.2	20.1	18.9	20.3	18.2	21.3	21.3	22.0	22.0
5G NR n41 PC2	Ant 0	34.2	34.2	20.1	18.9	20.3	18.2	21.3	21.3	22.0	22.0
5G NR n41 PC3(38 PC3)	Ant 1	35.2	35.2	20.0	19.2	21.7	19.6	22.4	22.4	22.0	22.0
5G NR n41 PC2	Ant 1	35.2	35.2	20.0	19.2	21.7	19.6	22.4	22.4	22.0	22.0
5G NR n41 PC3(38 PC3)	Ant 2	13.9	13.5	15.9	13.7	17.3	14.5	19.0	18.5	22.0	22.0
5G NR n41 PC2	Ant 2	13.9	13.5	15.9	13.7	17.3	14.5	19.0	18.5	22.0	22.0
5G NR n41 PC3(38 PC3)	Ant 3	17.4	16.5	21.7	21.2	23.3	22.0	22.1	21.6	23.0	23.0
5G NR n41 PC2	Ant 3	17.4	16.5	21.7	21.2	23.3	22.0	22.1	21.6	23.0	23.0
5G NR n48	Ant 0	35.3	35.3	21.0	21.0	27.3	25.0	21.0	21.0	21.0	21.0



5G NR n48	Ant 1	38.7	38.7	23.0	23.0	29.7	26.2	23.0	23.0	23.0	23.0
5G NR n48	Ant 2	17.5	16.3	19.8	15.6	20.8	17.6	21.1	20.6	23.0	23.0
5G NR n48	Ant 3	16.1	14.9	20.8	15.3	19.2	15.0	19.4	18.9	23.0	23.0
5G NR n77 PC3(n78 PC3)	Ant 0	37.4	37.4	23.0	23.0	24.7	23.7	23.0	23.0	23.0	23.0
5G NR n77 PC2(n78 PC2)	Ant 0	37.4	37.4	23.0	23.0	24.7	23.7	23.0	23.0	23.0	23.0
5G NR n77 PC3(n78 PC3)	Ant 1	37.5	37.5	25.6	23.4	24.0	22.2	25.5	25.5	23.0	23.0
5G NR n77 PC2(n78 PC2)	Ant 1	37.5	37.5	25.6	23.4	24.0	22.2	25.5	25.5	23.0	23.0
5G NR n77 PC3(n78 PC3)	Ant 2	16.2	15.2	19.6	15.6	20.4	17.2	19.6	19.0	23.0	23.0
5G NR n77 PC2(n78 PC2)	Ant 2	16.2	15.2	19.6	15.6	20.4	17.2	19.6	19.0	23.0	23.0
5G NR n77 PC3(n78 PC3)	Ant 3	15.8	15.1	19.9	16.1	19.0	15.7	19.9	19.5	23.0	23.0
5G NR n77 PC2(n78 PC2)	Ant 3	15.8	15.1	19.9	16.1	19.0	15.7	19.9	19.5	23.0	23.0

Note:

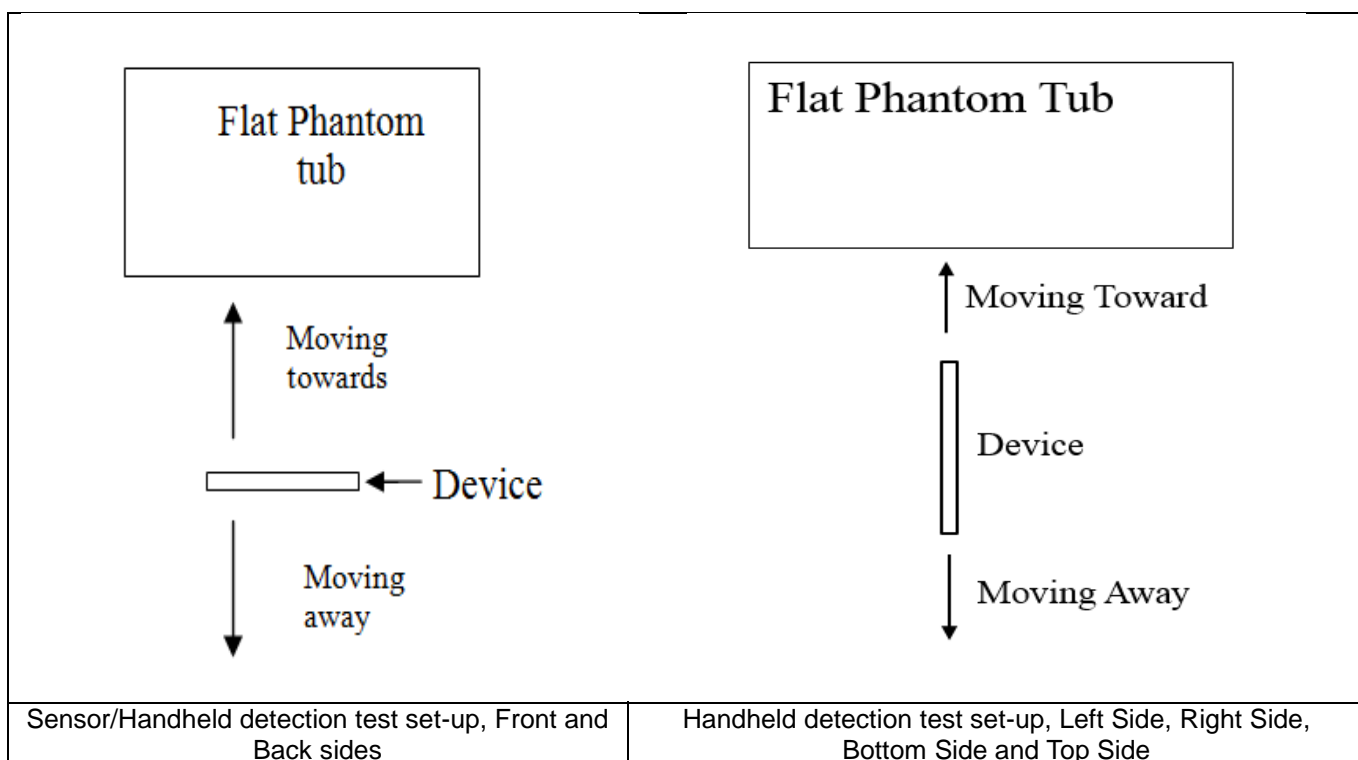
- 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to P_{max} + 1.0 dB device uncertainty.
- 2) All Plimit power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).
- 3) The max allowed output power is the Plimit + 1.0 dB device uncertainty, and if Plimit is higher than P_{max}, the device output power will be P_{max} instead.
- 4) For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
- 5) The following table is duty cycle and factor used for calculating time average power.

GSM/FDD/TDD	Duty Cycle	Time average calculation factor(dB)
GSM 1TX	12.50%	-9.0
GSM 2TX	25%	-6.0
GSM 3TX	37.50%	-4.3
GSM 4TX	50%	-3.0
FDD LTE	100%	0.0
TDD LTE	63.30%	-2.0
TDD HPUE	43.30%	-3.6
NR FDD/TDD	100%	0.0
NR TDD only for n41/77/78	50%	-3.0

6. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (7125MHz) and lowest (1750MHz) 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 sensors used to detect the proximity of the user's body at the front or back surface of the device use a detection threshold distance. The data shown in the sections below shows the distance(s). When front or back body worn condition is detected reduced power will be active.
5. The device employs proximity sensors also can detect the presence of the user's a finger or hand when handheld state at the front/back/top/bottom/left/right sides of the device. When front/back/top/bottom/left/right sides of handheld condition is detected reduced power will be active.
6. 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:





<Flip-Open Mode>
<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	17	14	16	18

<Handheld for ANT 0>

Proximity Sensor Triggering Distance (mm)								
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	12	13	13	4	6	7	12

<Handheld for ANT2>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	12	16	14	18	8	13	18	20

<Handheld for ANT 3>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	12	14	10	12	11	13	15	17



<Handheld for ANT 4+5>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Right Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	13	15	10	13	18	20	14	15

<Flip-Close Mode>

<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	13	11	15	13

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

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:

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

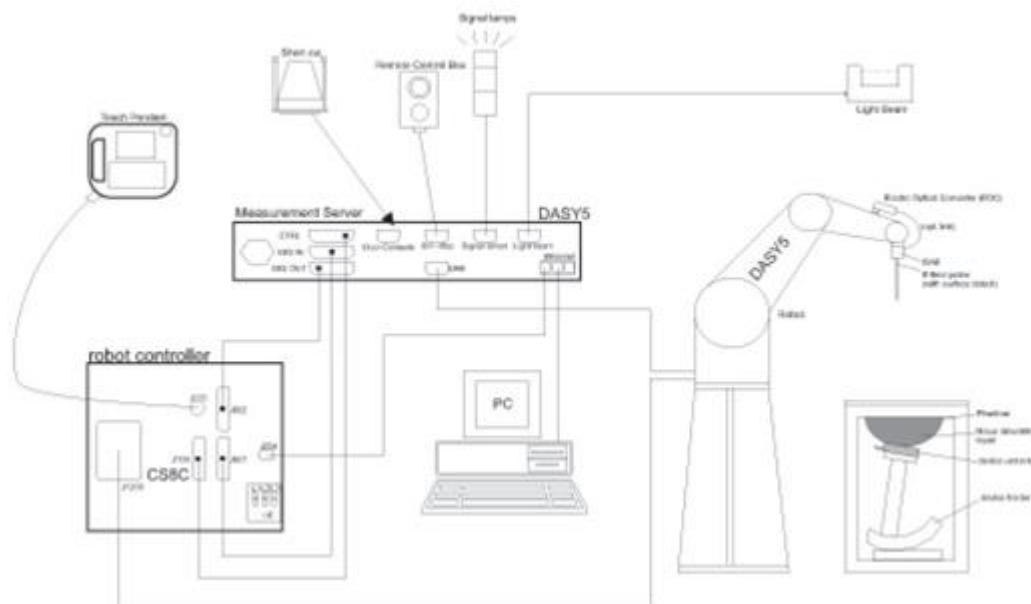
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. System Description and Setup

The DASY5 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 Win10 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

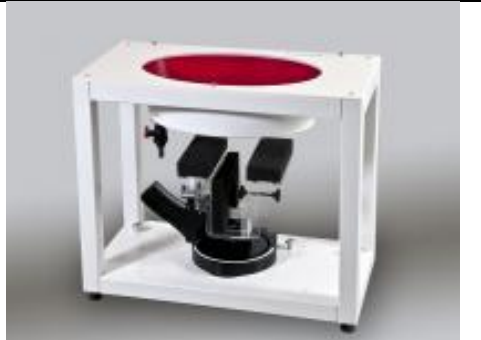
9.3 Phantom

<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 or for evaluating transmitters operating at low frequencies. ELI is fully compatible with standard and all known tissue simulating liquids.

9.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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



Mounting Device for Laptops

10. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

10.1 Spatial Peak SAR Evaluation

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

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

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

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor 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 sensors to surface determines the closest measurement point to phantom surface. This distance cannot be smaller than the distance of sensor calibration points to probe tip as defined in the probe properties.

10.3 Area Scan

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

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

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

10.4 Zoom Scan

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

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

		≤ 3 GHz	> 3 GHz	
Maximum zoom scan spatial resolution: 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 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
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 <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

10.5 Volume Scan Procedures

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

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	1087	2022/2/24	2023/2/23
SPEAG	835MHz System Validation Kit	D835V2	4d091	2022/8/19	2023/8/18
SPEAG	1750MHz System Validation Kit	D1750V2	1090	2022/2/24	2023/2/23
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	2021/12/20	2024/12/19
SPEAG	2300MHz System Validation Kit	D2300V2	1055	2020/9/15	2023/9/13
SPEAG	2450MHz System Validation Kit	D2450V2	1040	2020/5/6	2023/5/4
SPEAG	2600MHz System Validation Kit	D2600V2	1061	2020/11/26	2023/11/24
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2020/11/25	2023/11/23
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2020/11/25	2023/11/23
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2020/5/14	2023/5/12
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2023/9/22
SPEAG	Data Acquisition Electronics	DAE4	1303	2022/11/24	2023/11/23
SPEAG	Dosimetric E-Field Probe	EX3DV4	3826	2022/8/8	2023/8/7
SPEAG	SAM Twin Phantom	SAM Twin	TP-1842	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio Communication Analyzer	MT8821C	6262306175	2022/7/14	2023/7/13
Agilent	ENA Series Network Analyzer	E5071C	MY46104587	2022/5/24	2023/5/23
SPEAG	Dielectric Probe Kit	DAK-3.5	1144	2022/8/15	2023/8/14
Anritsu	Vector Signal Generator	MG3710A	6201682672	2022/1/6	2023/1/5
Anritsu	Vector Signal Generator	MG3710A	6201682672	2023/1/5	2024/1/4
Rohde & Schwarz	Power Meter	NRVD	102081	2022/7/14	2023/7/13
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2022/7/14	2023/7/13
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2022/7/14	2023/7/13
R&S	BLUETOOTH TESTER	CBT	101246	2022/5/24	2023/5/23
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2022/10/12	2023/10/11
TES	DIGITAC THERMOMETER	1310	200505600	2022/7/12	2023/7/11
Testo	Thermo-Hygrometer	608-H1	1241332126	2022/7/20	2023/7/19
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	

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
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. 11.1. 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. 11.2.

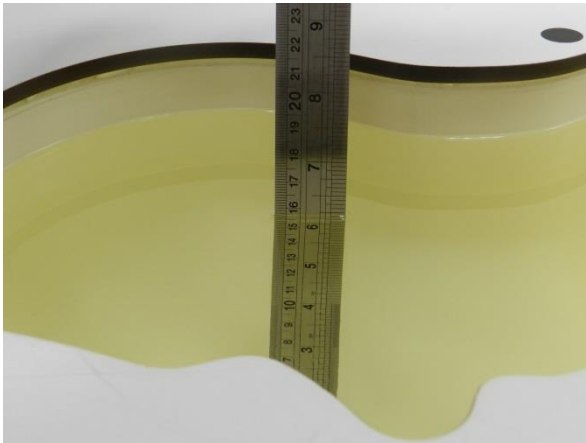


Fig 11.1 Photo of Liquid Height for Head SAR

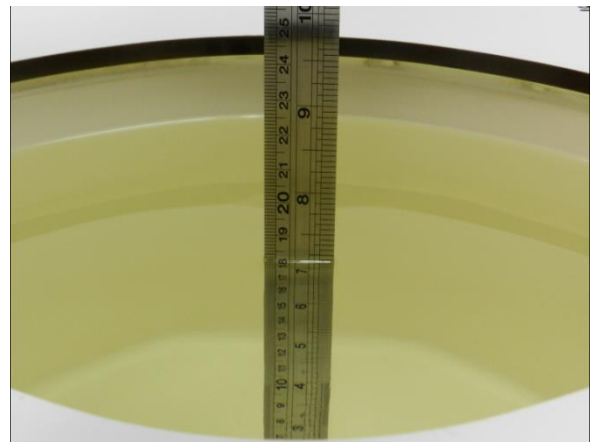


Fig 11.2 Photo of Liquid Height for Body SAR

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 (ϵ_r)
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. (°C)	Conductivity (σ)	Permittivity (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	Head	22.7	0.889	42.282	0.89	41.90	-0.11	0.91	±5	2022/12/23
835	Head	22.5	0.912	41.951	0.90	41.50	1.33	1.09	±5	2022/12/25
1750	Head	22.6	1.317	40.225	1.37	40.10	-3.87	0.31	±5	2022/12/27
1900	Head	22.8	1.407	40.215	1.40	40.00	0.50	0.54	±5	2022/12/29
2300	Head	22.9	1.653	39.657	1.67	39.50	-1.02	0.40	±5	2022/12/31
2600	Head	22.6	2.030	40.355	1.96	39.00	3.57	3.47	±5	2023/1/1
3500	Head	22.5	2.810	38.712	2.91	37.90	-3.44	2.14	±5	2023/1/3
3700	Head	22.8	2.988	38.360	3.12	37.70	-4.23	1.75	±5	2023/1/5
3900	Head	22.8	3.171	38.037	3.32	37.50	-4.49	1.43	±5	2023/1/7
750	Head	22.7	0.921	41.621	0.89	41.90	3.48	-0.67	±5	2023/1/8
835	Head	22.7	0.922	40.880	0.90	41.50	2.44	-1.49	±5	2023/1/9
1750	Head	22.6	1.351	40.380	1.37	40.10	-1.39	0.70	±5	2023/1/10
1900	Head	22.7	1.460	40.072	1.40	40.00	4.29	0.18	±5	2023/1/11
2300	Head	22.8	1.731	39.159	1.67	39.50	3.65	-0.86	±5	2023/1/12
2600	Head	22.6	1.981	39.096	1.96	39.00	1.07	0.25	±5	2023/1/13
3500	Head	22.8	2.770	38.733	2.91	37.90	-4.81	2.20	±5	2023/1/14
3700	Head	22.6	2.981	38.643	3.12	37.70	-4.46	2.50	±5	2023/1/14
3900	Head	22.6	3.179	38.352	3.32	37.50	-4.25	2.27	±5	2023/1/15
750	Head	22.5	0.903	41.448	0.89	41.90	1.46	-1.08	±5	2023/1/15
835	Head	22.8	0.934	41.163	0.90	41.50	3.78	-0.81	±5	2023/1/16
1750	Head	22.9	1.394	40.496	1.37	40.10	1.75	0.99	±5	2023/1/17
1900	Head	22.8	1.458	39.790	1.40	40.00	4.14	-0.53	±5	2023/1/18
2300	Head	22.6	1.719	38.686	1.67	39.50	2.93	-2.06	±5	2023/1/19
2450	Head	22.6	1.836	39.856	1.80	39.20	2.00	1.67	±5	2023/1/20
2600	Head	22.8	1.926	38.230	1.96	39.00	-1.73	-1.97	±5	2023/1/21
3500	Head	22.7	2.833	39.052	2.91	37.90	-2.65	3.04	±5	2023/1/22
3700	Head	22.6	3.024	38.721	3.12	37.70	-3.08	2.71	±5	2023/1/23
3900	Head	22.9	3.228	38.418	3.32	37.50	-2.77	2.45	±5	2023/1/24
5250	Head	22.8	4.587	36.210	4.71	35.90	-2.61	0.86	±5	2023/1/25
5600	Head	22.8	4.964	35.705	5.07	35.50	-2.09	0.58	±5	2023/1/26
5750	Head	22.7	5.138	35.514	5.22	35.40	-1.57	0.32	±5	2023/1/27
2450	Head	22.5	1.854	39.100	1.80	39.20	3.00	-0.26	±5	2023/1/28
5250	Head	22.6	4.557	34.998	4.71	35.90	-3.25	-2.51	±5	2023/1/29
5600	Head	22.8	4.946	34.382	5.07	35.50	-2.45	-3.15	±5	2023/1/30
5750	Head	22.9	5.120	34.108	5.22	35.40	-1.92	-3.65	±5	2023/1/31
2600	Head	22.7	1.881	39.126	1.96	39.00	-4.03	0.32	±5	2023/2/21
3700	Head	22.8	2.995	38.679	3.12	37.70	-4.01	2.60	±5	2023/2/22
3500	Head	22.9	2.811	38.713	2.91	37.90	-3.40	2.15	±5	2023/2/22



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>

Table with 11 columns: 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 (%). It contains 40 rows of test data.



<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 (%)
2022/12/23	750	Head	50	1087	3826	1303	0.269	5.65	5.38	-4.78
2022/12/25	835	Head	50	4d091	3826	1303	0.311	6.22	6.22	0.00
2022/12/27	1750	Head	50	1090	3826	1303	0.899	19.50	17.98	-7.79
2022/12/29	1900	Head	50	5d182	3826	1303	0.944	20.20	18.88	-6.53
2022/12/31	2300	Head	50	1055	3826	1303	1.100	22.90	22	-3.93
2023/1/1	2600	Head	50	1061	3826	1303	1.260	25.10	25.2	0.40
2023/1/3	3500	Head	50	1037	3826	1303	1.180	25.40	23.6	-7.09
2023/1/5	3700	Head	50	1008	3826	1303	1.190	24.40	23.8	-2.46
2023/1/7	3900	Head	50	1048	3826	1303	1.170	24.40	23.4	-4.10
2023/1/8	750	Head	50	1087	3826	1303	0.279	5.65	5.58	-1.24
2023/1/9	835	Head	50	4d091	3826	1303	0.315	6.22	6.3	1.29
2023/1/10	1750	Head	50	1090	3826	1303	0.914	19.50	18.28	-6.26
2023/1/11	1900	Head	50	5d182	3826	1303	0.980	20.20	19.6	-2.97
2023/1/12	2300	Head	50	1055	3826	1303	1.150	22.90	23	0.44
2023/1/13	2600	Head	50	1061	3826	1303	1.230	25.10	24.6	-1.99
2023/1/14	3500	Head	50	1037	3826	1303	1.240	25.40	24.8	-2.36
2023/1/14	3700	Head	50	1008	3826	1303	1.190	24.40	23.8	-2.46
2023/1/15	3900	Head	50	1048	3826	1303	1.170	24.40	23.4	-4.10
2023/1/15	750	Head	50	1087	3826	1303	0.273	5.65	5.46	-3.36
2023/1/16	835	Head	50	4d091	3826	1303	0.319	6.22	6.38	2.57
2023/1/17	1750	Head	50	1090	3826	1303	0.944	19.50	18.88	-3.18
2023/1/18	1900	Head	50	5d182	3826	1303	0.978	20.20	19.56	-3.17
2023/1/19	2300	Head	50	1055	3826	1303	1.140	22.90	22.8	-0.44
2023/1/20	2450	Head	50	1040	3826	1303	1.230	24.00	24.6	2.50
2023/1/21	2600	Head	50	1061	3826	1303	1.190	25.10	23.8	-5.18
2023/1/22	3500	Head	50	1037	3826	1303	1.250	25.40	25	-1.57
2023/1/23	3700	Head	50	1008	3826	1303	1.200	24.40	24	-1.64
2023/1/24	3900	Head	50	1048	3826	1303	1.180	24.40	23.6	-3.28
2023/1/25	5250	Head	50	1113	3826	1303	1.110	23.30	22.2	-4.72
2023/1/26	5600	Head	50	1113	3826	1303	1.210	23.70	24.2	2.11
2023/1/27	5750	Head	50	1113	3826	1303	1.120	23.00	22.4	-2.61
2023/1/28	2450	Head	50	1040	3826	1303	1.180	24.00	23.6	-1.67
2023/1/29	5250	Head	50	1113	3826	1303	1.100	23.30	22	-5.58
2023/1/30	5600	Head	50	1113	3826	1303	1.190	23.70	23.8	0.42
2023/1/31	5750	Head	50	1113	3826	1303	1.120	23.00	22.4	-2.61
2023/2/21	2600	Head	50	1061	3826	1303	1.170	25.10	23.4	-6.77
2023/2/22	3700	Head	50	1008	3826	1303	1.200	24.40	24	-1.64
2023/2/22	3500	Head	50	1037	3826	1303	1.190	25.40	23.8	-6.30

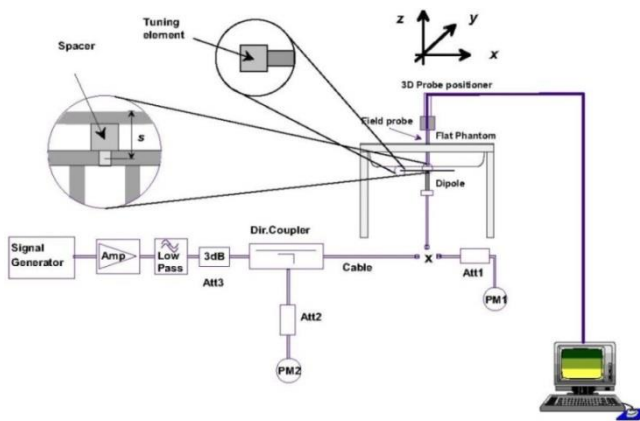


Fig 11.3.1 System Performance Check Setup



Fig 11.3.2 Setup Photo

13. RF Exposure Positions

13.1 Ear and handset reference point

Figure 12.1.1 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 12.1.2 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 12.1.3). 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 12.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

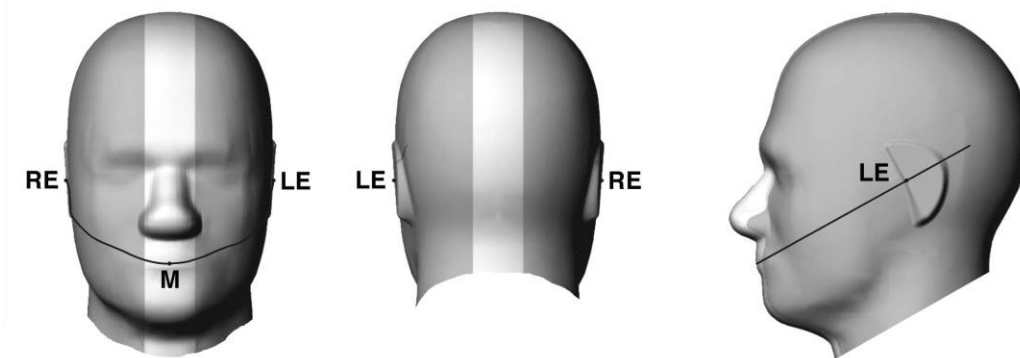


Fig 12.1.1 Front, back, and side views of SAM twin phantom

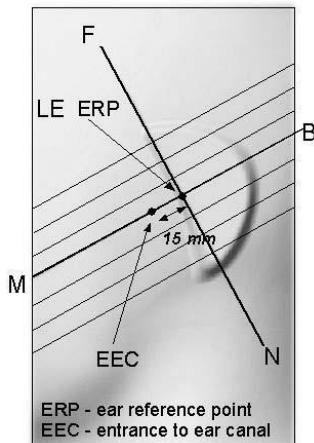


Fig 12.1.2 Close-up side view of phantom showing the ear region.

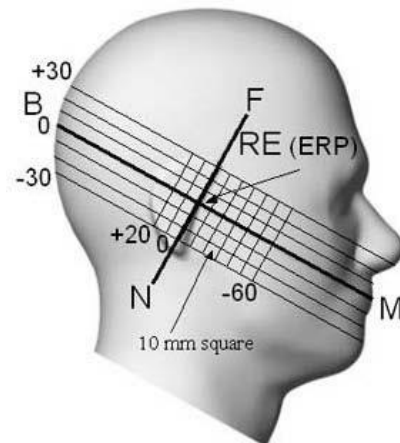


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width w_t of the handset at the level of the acoustic output (point A in Figure 12.2.1 and Figure 12.2.2), and the midpoint of the width w_b of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 12.2.1). 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 12.2.2), 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 12.2.3), 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 12.2.3. The actual rotation angles should be documented in the test report.

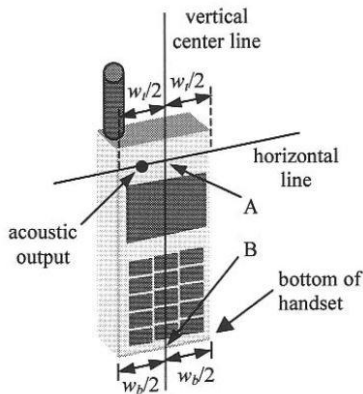


Fig 12.2.1 Handset vertical and horizontal reference lines—“fixed case”

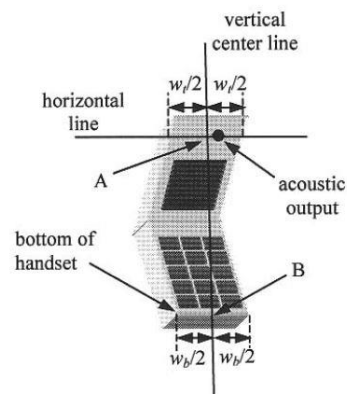


Fig 12.2.2 Handset vertical and horizontal reference lines—“clam-shell case”

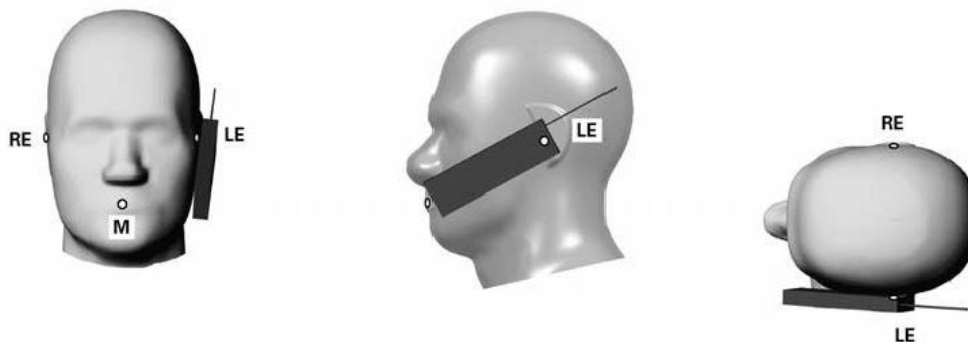


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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 12.3.1. 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

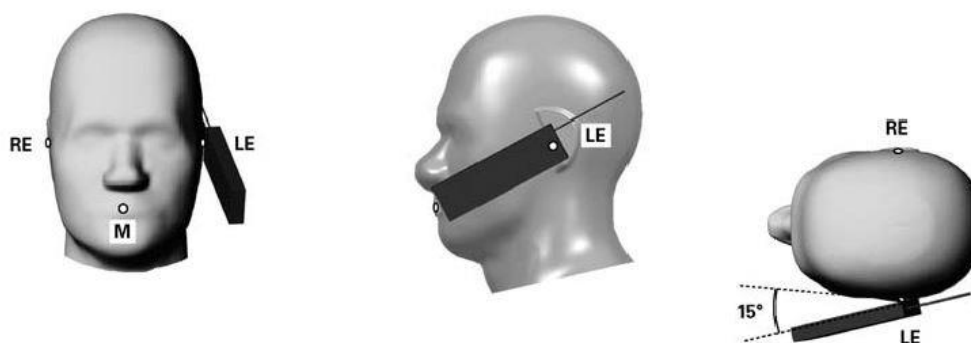


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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

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

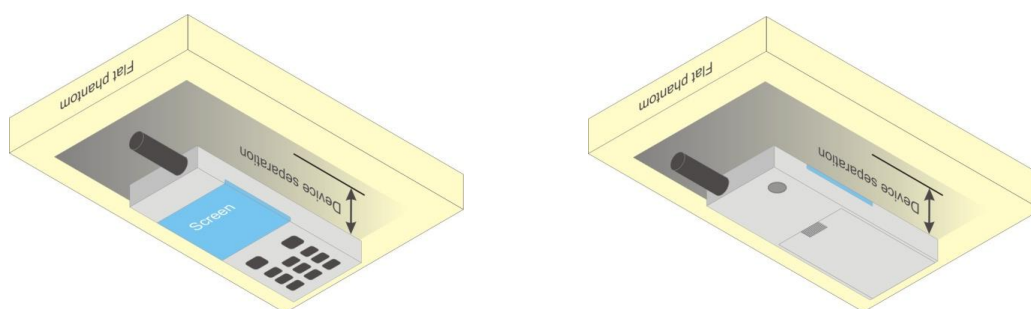


Fig 12.4 Body Worn Position

13.5 Product Specific 10g SAR Exposure

For smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, that can provide similar mobile web access and multimedia support found in mini-tablets or UMPC mini-tablets and 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 ($L \times W \geq 9$ cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

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

14. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

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

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set Gain Factors (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} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

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

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

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

Note 4: For subtest 2 the 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 $\beta_c = 11/15$ and $\beta_d = 15/15$.

Setup Configuration

HSUPA Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - ii. Set the Gain Factors (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	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 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 $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 5/15$ with $\beta_{hs} = 5/15 * \beta_c$.

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

Note 3: For subtest 1 the 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, TF0) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

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

Note 5: 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 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: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

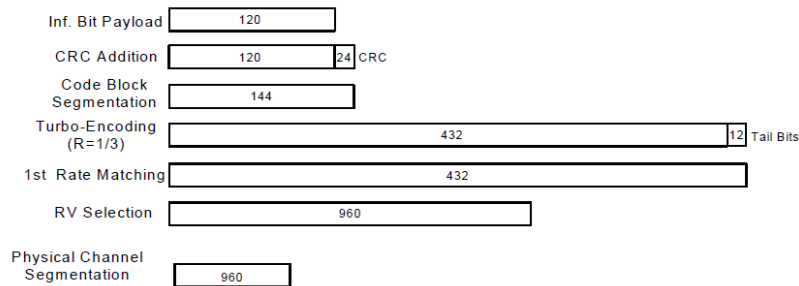


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK) Setup Configuration



<WCDMA Conducted Power>

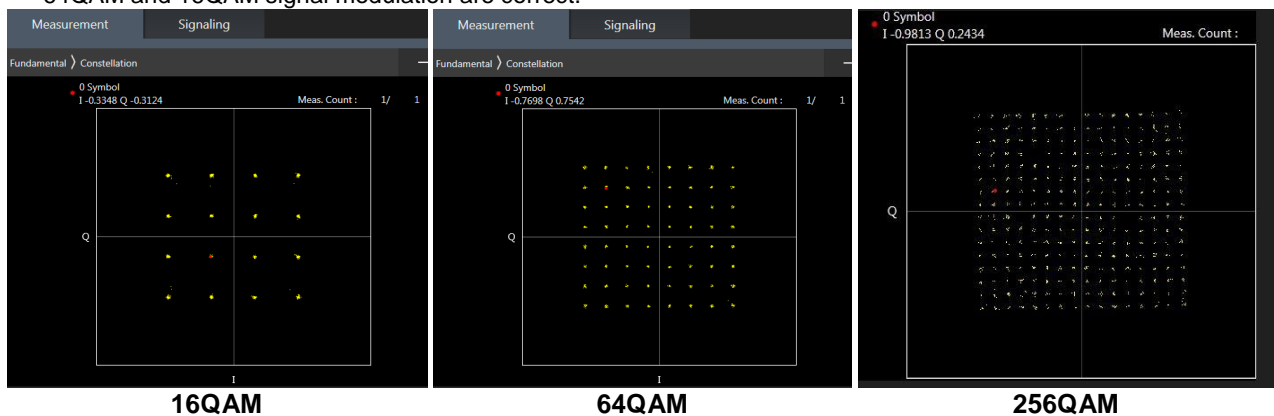
General Note:

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 is $\leq \frac{1}{4}$ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than $\frac{1}{4}$ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

<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 $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 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 B2 / B4 /B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41 / B48; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is \leq the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to May 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.



<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.

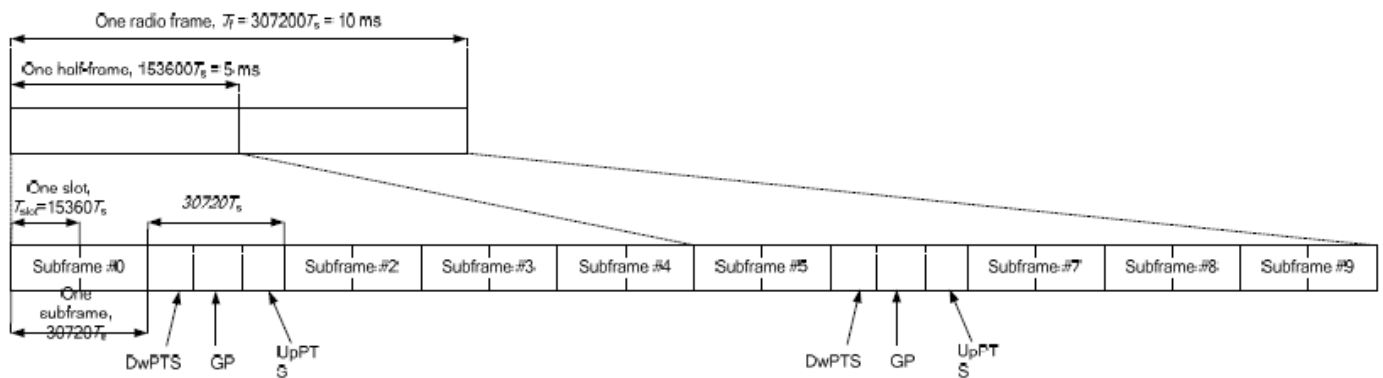


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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	D	S	U	U	D	

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

Special subframe configuration	Normal cyclic prefix in downlink			Extended cyclic prefix in downlink		
	DwPTS	UpPTS		DwPTS	UpPTS	
		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink		Normal cyclic prefix in uplink	Extended cyclic prefix in uplink
0	6592 · Ts	2192 · Ts	2560 · Ts	7680 · Ts	2192 · Ts	2560 · Ts
1	19760 · Ts			20480 · Ts		
2	21952 · Ts			23040 · Ts		
3	24144 · Ts			25600 · Ts		
4	26336 · Ts	4384 · Ts	5120 · Ts	7680 · Ts	4384 · Ts	5120 · Ts
5	6592 · Ts			20480 · Ts		
6	19760 · Ts			23040 · Ts		
7	21952 · Ts			12800 · Ts		
8	24144 · Ts			-		
9	13168 · Ts	-	-	-	-	-

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 TDD Power class 2

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

For LTE TDD Power class 3

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

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

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



<LTE Carrier Aggregation>

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. The gray color table is covered by other combinations and no need to verify power, but Only LTE Band 29/46 is limited to Scell.

2CC Downlink Carrier Aggregation			3CC Downlink Carrier Aggregation			4CC Downlink Carrier Aggregation			5CC Downlink Carrier Aggregation		
Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset	Number	Combination	Covered by Measurement Superset
1	CA_12A-30A	3CC-1	1	CA_12A-30A-66A	4CC-1	1	CA_12A-30A-66A-66A	5CC-8	1	CA_13A-46D-66A	
2	CA_12A-46A	3CC-2	2	CA_12A-46C	4CC-2	2	CA_12A-46D		2	CA_13A-46E	
3	CA_12A-48A	3CC-3	3	CA_12A-48C		3	CA_12B-66A-66A	5CC-9	3	CA_13A-48A-48C-66A	
4	CA_12A-66A	3CC-4	4	CA_12A-66A-66A	4CC-1	4	CA_13A-46C-66A	5CC-1	4	CA_13A-48A-48D	
5	CA_12B	3CC-6	5	CA_12A-66C		5	CA_13A-46D	5CC-2	5	CA_13A-48C-48C	
6	CA_13A-46A	3CC-7	6	CA_12B-66A	4CC-3	6	CA_13A-48A-48A-66A	5CC-3	6	CA_13A-48D-66A	
7	CA_13A-48A	3CC-10	7	CA_13A-46A-46A		7	CA_13A-48A-48C	5CC-5	7	CA_13A-48E	
8	CA_13A-66A	3CC-11	8	CA_13A-46A-66A	4CC-4	8	CA_13A-48A-66B		8	CA_2A-12A-30A-66A-66A	
9	CA_14A-30A	3CC-16	9	CA_13A-46C	4CC-4	9	CA_13A-48A-66C		9	CA_2A-12B-66A-66A	
10	CA_14A-66A	3CC-16	10	CA_13A-48A-48A	4CC-6	10	CA_13A-48C-66A	5CC-6	10	CA_2A-13A-46D	
11	CA_25A-25A	3CC-20	11	CA_13A-48A-66A	4CC-6	11	CA_13A-48D	5CC-14	11	CA_2A-13A-48A-48A-66A	
12	CA_25A-26A	3CC-19	12	CA_13A-48C	4CC-7	12	CA_13A-66A-66B	5CC-15	12	CA_2A-13A-48A-48C	
13	CA_25A-41A	3CC-21	13	CA_13A-66A-66A	4CC-25	13	CA_14A-30A-66A-66A	5CC-16	13	CA_2A-13A-48C-66A	
14	CA_25A-66A	3CC-20	14	CA_13A-66B	4CC-8	14	CA_14A-66A-66A-66A	5CC-17	14	CA_2A-13A-48D	
15	CA_26A-41A	3CC-23	15	CA_13A-66C	4CC-9	15	CA_25A-41D		15	CA_2A-13A-66A-66B	
16	CA_26A-46A		16	CA_14A-30A-66A	4CC-13	16	CA_29A-30A-66A-66A		16	CA_2A-14A-30A-66A-66A	
17	CA_29A-30A	3CC-24	17	CA_14A-66A-66A	4CC-14	17	CA_2A-12A-30A-66A	5CC-18	17	CA_2A-14A-66A-66A-66A	
18	CA_29A-66A	3CC-25	18	CA_25A-25A-26A		18	CA_2A-12A-66A-66A	5CC-19	18	CA_2A-2A-12A-30A-66A	
19	CA_2A-12A	3CC-26	19	CA_25A-25A-66A	4CC-143	19	CA_2A-12A-66C		19	CA_2A-2A-12A-66A-66A	
20	CA_2A-13A	3CC-29	20	CA_25A-41C	4CC-15	20	CA_2A-12B-66A	5CC-20	20	CA_2A-2A-12B-66A	
21	CA_2A-14A	3CC-32	21	CA_25A-46C		21	CA_2A-13A-46C	5CC-10	21	CA_2A-2A-13A-66A-66A	
22	CA_2A-29A	3CC-34	22	CA_26A-41C		22	CA_2A-13A-48A-48A	5CC-11	22	CA_2A-2A-14A-30A-66A	
23	CA_2A-2A	3CC-36	23	CA_29A-30A-66A	4CC-30	23	CA_2A-13A-48A-66A	5CC-11	23	CA_2A-2A-14A-66A-66A	
24	CA_2A-30A	3CC-40	24	CA_29A-66A-66A	4CC-16	24	CA_2A-13A-48C	5CC-12	24	CA_2A-2A-29A-30A-66A	
25	CA_2A-46A	3CC-41	25	CA_2A-12A-30A	4CC-17	25	CA_2A-13A-66A-66A	5CC-15	25	CA_2A-2A-29A-66A-66A	
26	CA_2A-48A	3CC-52	26	CA_2A-12A-66A	4CC-18	26	CA_2A-13A-66B	5CC-15	26	CA_2A-2A-46D	
27	CA_2A-4A	3CC-55	27	CA_2A-12B	4CC-20	27	CA_2A-13A-66C		27	CA_2A-2A-5A-30A-66A	
28	CA_2A-5A	3CC-43	28	CA_2A-13A-46A	4CC-21	28	CA_2A-14A-30A-66A	5CC-16	28	CA_2A-2A-5A-66A-66A	
29	CA_2A-66A	3CC-44	29	CA_2A-13A-48A	4CC-22	29	CA_2A-14A-66A-66A	5CC-16	29	CA_2A-2A-5A-66B	
30	CA_2A-71A	3CC-45	30	CA_2A-13A-66A	4CC-23	30	CA_2A-29A-30A-66A	5CC-24	30	CA_2A-2A-5A-66C	
31	CA_2A-7A	3CC-46	31	CA_2A-14A-30A	4CC-28	31	CA_2A-2A-12A-30A	5CC-18	31	CA_2A-2A-5B-66A	
32	CA_2C	3CC-80	32	CA_2A-14A-66A	4CC-28	32	CA_2A-2A-12A-66A	5CC-18	32	CA_2A-46A-46C-66A	
33	CA_30A-66A	3CC-47	33	CA_2A-29A-30A	4CC-30	33	CA_2A-2A-12B	5CC-20	33	CA_2A-46A-46D	
34	CA_41A-41A	3CC-83	34	CA_2A-29A-66A	4CC-30	34	CA_2A-2A-13A-66A	5CC-21	34	CA_2A-46A-48C-66A	6CC-1
35	CA_41C	3CC-83	35	CA_2A-2A-12A	4CC-31	35	CA_2A-2A-14A-30A	5CC-22	35	CA_2A-46A-48D	6CC-2
36	CA_46A-66A	3CC-86	36	CA_2A-2A-13A	4CC-34	36	CA_2A-2A-14A-66A	5CC-23	36	CA_2A-46C-48A-66A	6CC-3
37	CA_46A-71A	3CC-90	37	CA_2A-2A-14A	4CC-35	37	CA_2A-2A-29A-30A	5CC-24	37	CA_2A-46C-48C	6CC-4
38	CA_48A-48A	3CC-52	38	CA_2A-2A-29A	4CC-37	38	CA_2A-2A-30A-66A	5CC-24	38	CA_2A-46D-48A	6CC-6
39	CA_48A-66A	3CC-53	39	CA_2A-2A-30A	4CC-38	39	CA_2A-2A-46C	5CC-26	39	CA_2A-46D-66A	6CC-9
40	CA_48A-71A	3CC-93	40	CA_2A-2A-46A	4CC-39	40	CA_2A-2A-4A-12A		40	CA_2A-46E	6CC-8
41	CA_48B		41	CA_2A-2A-4A	4CC-43	41	CA_2A-2A-4A-4A		41	CA_2A-48A-48C-66A	
42	CA_48C	3CC-94	42	CA_2A-2A-5A	4CC-44	42	CA_2A-2A-4A-5A		42	CA_2A-48A-48D	
43	CA_4A-12A	3CC-101	43	CA_2A-2A-66A	4CC-45	43	CA_2A-2A-4A-71A		43	CA_2A-48C-48C	
44	CA_4A-13A	3CC-108	44	CA_2A-2A-71A	4CC-49	44	CA_2A-2A-5A-30A	5CC-27	44	CA_2A-48D-66A	6CC-10



FCC SAR Test Report

Report No. : FA2D0913

45	CA_4A-17A		45	CA_2A-2A-7A	4CC-46	45	CA_2A-2A-5A-66A	5CC-27	45	CA_2A-48E	6CC-10
46	CA_4A-29A	3CC-103	46	CA_2A-30A-66A	4CC-54	46	CA_2A-2A-5A-7A		46	CA_2A-5A-30A-66A-66A	
47	CA_4A-30A	3CC-112	47	CA_2A-46A-46A	4CC-55	47	CA_2A-2A-5B	5CC-31	47	CA_2A-5A-46C-66A	
48	CA_4A-46A	3CC-104	48	CA_2A-46A-48A	4CC-57	48	CA_2A-2A-66A-66A	5CC-28	48	CA_2A-5A-46D	
49	CA_4A-48A	3CC-106	49	CA_2A-46A-66A	4CC-57	49	CA_2A-2A-66A-71A		49	CA_2A-5A-48A-66A-66A	
50	CA_4A-4A	3CC-107	50	CA_2A-46C	4CC-61	50	CA_2A-2A-66B	5CC-29	50	CA_2A-5A-48C-66A	
51	CA_4A-5A	3CC-109	51	CA_2A-48A-48A	4CC-63	51	CA_2A-2A-66C	5CC-30	51	CA_2A-5A-48D	
52	CA_4A-71A	3CC-110	52	CA_2A-48A-66A	4CC-63	52	CA_2A-2A-7A-12A		52	CA_2A-5A-7A-7A-66A	
53	CA_4A-7A	3CC-115	53	CA_2A-48C	4CC-64	53	CA_2A-2A-7A-66A		53	CA_2A-5B-30A-66A	
54	CA_5A-30A	3CC-117	54	CA_2A-4A-12A	4CC-69	54	CA_2A-30A-66A-66A	5CC-16	54	CA_2A-5B-66A-66A	
55	CA_5A-46A	3CC-118	55	CA_2A-4A-13A		55	CA_2A-46A-46A-66A		55	CA_2A-5B-66B	
56	CA_5A-48A	3CC-120	56	CA_2A-4A-29A		56	CA_2A-46A-46C	5CC-32	56	CA_2A-5B-66C	
57	CA_5A-5A	3CC-122	57	CA_2A-4A-30A		57	CA_2A-46A-48A-66A	5CC-34	57	CA_2A-7A-46D	
58	CA_5A-66A	3CC-123	58	CA_2A-4A-4A	4CC-70	58	CA_2A-46A-48C	5CC-35	58	CA_2A-7A-7A-13A-66A	
59	CA_5A-7A	3CC-126	59	CA_2A-4A-5A	4CC-70	59	CA_2A-46A-66A-66A	6CC-7	59	CA_2A-7A-7A-29A-66A	
60	CA_5B	3CC-130	60	CA_2A-4A-71A	4CC-49	60	CA_2A-46C-48A	5CC-38	60	CA_2A-7A-7A-66A-66A	
61	CA_66A-66A	3CC-133	61	CA_2A-4A-7A	4CC-72	61	CA_2A-46C-66A	5CC-39	61	CA_2A-7C-13A-66A	
62	CA_66A-71A	3CC-134	62	CA_2A-5A-30A	4CC-75	62	CA_2A-46D	5CC-33	62	CA_2A-7C-66A-66A	
63	CA_66B	3CC-135	63	CA_2A-5A-46A	4CC-76	63	CA_2A-48A-48A-66A	5CC-41	63	CA_46A-46D-66A	
64	CA_66C	3CC-136	64	CA_2A-5A-48A	4CC-78	64	CA_2A-48A-48C	5CC-41	64	CA_46A-48D-66A	6CC-11
65	CA_7A-12A	3CC-138	65	CA_2A-5A-66A	4CC-78	65	CA_2A-48A-66A-66A	5CC-49	65	CA_46C-48C-66A	6CC-12
66	CA_7A-13A	3CC-139	66	CA_2A-5A-7A	4CC-84	66	CA_2A-48C-66A	5CC-41	66	CA_46D-48A-66A	6CC-13
67	CA_7A-25A	3CC-140	67	CA_2A-5B	4CC-85	67	CA_2A-48D	5CC-44	67	CA_46D-66A-66A	6CC-15
68	CA_7A-29A	3CC-142	68	CA_2A-66A-66A	4CC-87	68	CA_2A-4A-12B		68	CA_46E-66A	6CC-15
69	CA_7A-30A		69	CA_2A-66A-71A	4CC-88	69	CA_2A-4A-4A-12A		69	CA_48A-48C-66B	
70	CA_7A-46A	3CC-144	70	CA_2A-66B	4CC-89	70	CA_2A-4A-4A-5A		70	CA_48A-48C-66C	
71	CA_7A-66A	3CC-145	71	CA_2A-66C	4CC-90	71	CA_2A-4A-5B		71	CA_48A-48D-66A	
72	CA_7A-7A	3CC-147	72	CA_2A-7A-12A	4CC-91	72	CA_2A-4A-7A-12A		72	CA_48A-48E	
73	CA_7B		73	CA_2A-7A-13A	4CC-92	73	CA_2A-4A-7A-7A		73	CA_48C-48C-66A	
74	CA_7C	3CC-151	74	CA_2A-7A-29A	4CC-93	74	CA_2A-4A-7C		74	CA_48C-48D	
			75	CA_2A-7A-46A	4CC-94	75	CA_2A-5A-30A-66A	5CC-46	75	CA_48E-66A	6CC-15
			76	CA_2A-7A-66A	4CC-95	76	CA_2A-5A-46A-66A	5CC-47	76	CA_4A-46A-46D	
			77	CA_2A-7A-7A	4CC-96	77	CA_2A-5A-46C	5CC-47	77	CA_4A-48E	
			78	CA_2A-7C	4CC-99	78	CA_2A-5A-48A-66A	5CC-50	78	CA_5A-46D-66A	
			79	CA_2C-12A		79	CA_2A-5A-48C	5CC-51	79	CA_5A-46E	
			80	CA_2C-66A	4CC-101	80	CA_2A-5A-66A-66A	5CC-49	80	CA_5A-48D-66A	
			81	CA_30A-66A-66A	4CC-54	81	CA_2A-5A-66B	5CC-55	81	CA_5A-7C-66A-66A	
			82	CA_41A-41C		82	CA_2A-5A-66C	5CC-56	82	CA_5B-46D	
			83	CA_41D	4CC-15	83	CA_2A-5A-7A-66A	5CC-52	83	CA_7A-46E	
			84	CA_46A-46A-66A	4CC-102	84	CA_2A-5A-7A-7A	5CC-52	84	CA_7A-7A-25A-25A-66A	
			85	CA_46A-48A-66A	4CC-103	85	CA_2A-5B-30A	5CC-53	85	CA_7C-46D	
			86	CA_46A-66A-66A		86	CA_2A-5B-66A	5CC-31			
			87	CA_46A-66C		87	CA_2A-66A-66A-66A	5CC-17			
			88	CA_46C-66A	4CC-61	88	CA_2A-66A-66A-71A				
			89	CA_46C-71A	4CC-107	89	CA_2A-66A-66B	5CC-15			
			90	CA_48A-48A-48A		90	CA_2A-66C-71A				
			91	CA_48A-48A-66A	4CC-6	91	CA_2A-7A-12A-66A				
			92	CA_48A-48A-71A		92	CA_2A-7A-13A-66A	5CC-58			
			93	CA_48A-48C	4CC-7	93	CA_2A-7A-29A-66A	5CC-59			
			94	CA_48A-66A-66A	4CC-108	94	CA_2A-7A-46C	5CC-57			
			95	CA_48A-66B	4CC-8	95	CA_2A-7A-66A-66A	5CC-60			
			96	CA_48A-66C	4CC-9	96	CA_2A-7A-7A-13A	5CC-58			
			97	CA_48C-66A	4CC-10	97	CA_2A-7A-7A-29A	5CC-59			
			98	CA_48C-71A		98	CA_2A-7A-7A-66A	5CC-60			
			99	CA_48D	4CC-11	99	CA_2A-7C-13A	5CC-61			
			100	CA_4A-12A-30A		100	CA_2A-7C-66A	5CC-61			



FCC SAR Test Report

Report No. : FA2D0913

			101	CA_4A-12B	4CC-68	101	CA_2C-66A-66A				
			102	CA_4A-29A-30A		102	CA_46A-46C-66A	5CC-63			
			103	CA_4A-46A-46A	4CC-119	103	CA_46A-48C-66A	5CC-64			
			104	CA_4A-46C	4CC-119	104	CA_46C-48A-66A	5CC-65			
			105	CA_4A-48C	4CC-121	105	CA_46C-66A-66A	5CC-67			
			106	CA_4A-4A-12A	4CC-69	106	CA_46D-66A	5CC-67			
			107	CA_4A-4A-13A		107	CA_46D-71A				
			108	CA_4A-4A-5A	4CC-70	108	CA_48A-48A-66A-66A				
			109	CA_4A-4A-71A		109	CA_48A-48A-66B				
			110	CA_4A-4A-7A		110	CA_48A-48A-66C				
			111	CA_4A-5A-30A		111	CA_48A-48C-66A	5CC-3			
			112	CA_4A-5B	4CC-71	112	CA_48A-48D	5CC-4			
			113	CA_4A-7A-12A	4CC-72	113	CA_48C-48C	5CC-5			
			114	CA_4A-7A-7A	4CC-73	114	CA_48C-66A-66A				
			115	CA_4A-7C	4CC-74	115	CA_48C-66B	5CC-69			
			116	CA_5A-30A-66A	4CC-75	116	CA_48C-66C	5CC-70			
			117	CA_5A-46A-66A	4CC-76	117	CA_48D-66A	5CC-44			
			118	CA_5A-46C	4CC-77	118	CA_48E	5CC-45			
			119	CA_5A-48A-66A	4CC-78	119	CA_4A-46A-46C				
			120	CA_5A-48C	4CC-79	120	CA_4A-46D	5CC-76			
			121	CA_5A-5A-66A	4CC-130	121	CA_4A-48D	5CC-77			
			122	CA_5A-66A-66A	4CC-124	122	CA_4A-4A-12B				
			123	CA_5A-66B	4CC-131	123	CA_4A-4A-5B				
			124	CA_5A-66C	4CC-132	124	CA_5A-30A-66A-66A	5CC-46			
			125	CA_5A-7A-46A	4CC-133	125	CA_5A-46C-66A				
			126	CA_5A-7A-66A	4CC-134	126	CA_5A-46D	5CC-78			
			127	CA_5A-7A-7A	4CC-135	127	CA_5A-48A-66A-66A	5CC-49			
			128	CA_5A-7C	4CC-136	128	CA_5A-48C-66A	5CC-80			
			129	CA_5B-30A	4CC-137	129	CA_5A-48D	5CC-80			
			130	CA_5B-46A	4CC-138	130	CA_5A-5A-66A-66A				
			131	CA_5B-66A	4CC-139	131	CA_5A-5A-66B				
			132	CA_66A-66A-66A	4CC-14	132	CA_5A-5A-66C				
			133	CA_66A-66A-71A	4CC-88	133	CA_5A-7A-46C				
			134	CA_66A-66B	4CC-89	134	CA_5A-7A-66A-66A	5CC-81			
			135	CA_66A-66C		135	CA_5A-7A-7A-66A	5CC-52			
			136	CA_66C-71A	4CC-90	136	CA_5A-7C-66A	5CC-81			
			137	CA_7A-12A-66A	4CC-142	137	CA_5B-30A-66A	5CC-53			
			138	CA_7A-13A-66A	4CC-145	138	CA_5B-46C				
			139	CA_7A-25A-25A	4CC-146	139	CA_5B-66A-66A	5CC-54			
			140	CA_7A-25A-66A	4CC-147	140	CA_5B-66B	5CC-55			
			141	CA_7A-29A-66A	4CC-93	141	CA_5B-66C	5CC-56			
			142	CA_7A-46A-66A		142	CA_7A-12A-66A-66A				
			143	CA_7A-46C	4CC-94	143	CA_7A-25A-25A-66A	5CC-84			
			144	CA_7A-66A-66A	4CC-95	144	CA_7A-46D	5CC-57			
			145	CA_7A-7A-13A	4CC-96	145	CA_7A-7A-13A-66A	5CC-58			
			146	CA_7A-7A-25A	4CC-146	146	CA_7A-7A-25A-25A	5CC-84			
			147	CA_7A-7A-29A	4CC-97	147	CA_7A-7A-25A-66A	5CC-84			
			148	CA_7A-7A-46A		148	CA_7A-7A-29A-66A	5CC-59			
			149	CA_7A-7A-66A	4CC-98	149	CA_7A-7A-66A-66A	5CC-60			
			150	CA_7C-13A	4CC-99	150	CA_7C-13A-66A	5CC-61			
			151	CA_7C-29A		151	CA_7C-46C	5CC-85			
			152	CA_7C-46A	4CC-151	152	CA_7C-66A-66A	5CC-81			
			153	CA_7C-66A	4CC-152						



6CC Downlink Carrier Aggregation			7CC Downlink Carrier Aggregation		
Number	Combination	Covered by	Number	Combination	Covered by
		Measurement Superset			Measurement Superset
1	CA_2A-46A-48D-66A	7CC-1	1	CA_2A-46C-48D-66A	
2	CA_2A-46A-48E	7CC-2	2	CA_2A-46C-48E	
3	CA_2A-46C-48C-66A	7CC-3	3	CA_2A-46D-48C-66A	
4	CA_2A-46C-48D	7CC-2	4	CA_2A-46E-48A-66A	
5	CA_2A-46D-48A-66A	7CC-4	5	CA_2A-46E-48C	
6	CA_2A-46D-48C	7CC-5	6	CA_2A-46E-66A-66A	
7	CA_2A-46D-66A-66A	7CC-6	7	CA_46C-48E-66A	
8	CA_2A-46E-48A	7CC-4	8	CA_46E-48C-66A	
9	CA_2A-46E-66A	7CC-6			
10	CA_2A-48E-66A				
11	CA_46A-48E-66A	7CC-7			
12	CA_46C-48D-66A	7CC-7			
13	CA_46D-48C-66A	7CC-7			
14	CA_46E-48A-66A	7CC-4			
15	CA_46E-66A-66A	7CC-6			

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.

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Band 2/4/7/25/30/41/48/66 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 Band 2/4/7/25/30/41/48/66

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation
Intra-band	Antenna Tx
CA_5B	Ant0/1/2
CA_7C	Ant0/1/2/3
CA_66B	Ant0/1/2/3
CA_66C	Ant0/1/2/3
CA_41C	Ant0/1/2/3
CA_48C	Ant0/1/2/3

<Intra-band>

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B5/7/66/41/48 with a maximum of two uplink 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 uplink 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 Nov. 2017 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 with 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.
- v. LTE CA_66B test was covered by CA_66C; therefore, SAR was only assessed for CA_66C.



<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Inter-band	Main Antenna Tx	ASDiv Tx
CA_12A-30A	Ant0/1/2	Ant0/1/2/3
CA_12A-66A	Ant0/1/2	Ant0/1/2/3
CA_13A-66A	Ant0/1/2	Ant0/1/2/3
CA_14A-30A	Ant0/1/2	Ant0/1/2/3
CA_14A-66A	Ant0/1/2	Ant0/1/2/3
CA_2A-12A	Ant0/1/2/3	Ant0/1/2
CA_2A-13A	Ant0/1/2/3	Ant0/1/2
CA_2A-14A	Ant0/1/2/3	Ant0/1/2
CA_2A-30A	Ant0/1/2/3	Ant0/1/2/3
CA_2A-4A	Ant0/1/2/3	Ant0/1/2/3
CA_2A-5A	Ant0/1/2/3	Ant0/1/2
CA_2A-66A	Ant0/1/2/3	Ant0/1/2/3
CA_2A-7A	Ant0/1/2/3	Ant0/1/2/3
CA_4A-12A	Ant0/1/2/3	Ant0/1/2
CA_4A-13A	Ant0/1/2/3	Ant0/1/2
CA_4A-5A	Ant0/1/2/3	Ant0/1/2
CA_4A-7A	Ant0/1/2/3	Ant0/1/2/3
CA_5A-30A	Ant0/1/2	Ant0/1/2/3
CA_5A-66A	Ant0/1/2	Ant0/1/2/3
CA_5A-7A	Ant0/1/2	Ant0/1/2/3

General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. 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.
3. 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.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/n12/n25/n30/n66/n71/n41/n77/n78 is NSA mode.
2. 5G NR n2/n5/n7/n12/n13/n14/n25/n26/n30/n66/n70/n71/n38/n41/n48/n77/n78 is SA 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-s QPSK and the reported SAR for the DFT-s 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. This device supports HPUE for 5G NR n41/n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
5. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
6. 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.
7. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
8. 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.
9. 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.
10. 5G NR n41/n77/n78/n48 supports UL MIMO.
11. The device supports HPUE (power class 2) under SISO mode and HPUE (power class 1.5) under UL MIMO mode for 5G NR n41/n77.

<3GPP 38.101 MPR for EN-DC>

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

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

<EN-DC combination>

ENDC	LTE TX	NR TX
DC_12A_n25A	Ant0/1/2	Ant0/1/2/3
DC_12A_n2A	Ant0/1/2	Ant0/1/2/3
DC_12A_n30A	Ant0/1/2	Ant0/1/2/3
DC_12A_n41A	Ant0/1/2	Ant0/1/2/3
DC_12A_n66A	Ant0/1/2	Ant0/1/2/3
DC_12A_n77A	Ant0/1/2	Ant0/1/2/3
DC_12A_n78A	Ant0/1/2	Ant0/1/2/3
DC_12A_n7A	Ant0/1/2	Ant0/1/2/3
DC_13A_n2A	Ant0/1/2	Ant0/1/2/3
DC_13A_n66A	Ant0/1/2	Ant0/1/2/3
DC_13A_n77A	Ant0/1/2	Ant0/1/2/3
DC_13A_n78A	Ant0/1/2	Ant0/1/2/3
DC_14A_n2A	Ant0/1/2	Ant0/1/2/3
DC_14A_n30A	Ant0/1/2	Ant0/1/2/3
DC_14A_n66A	Ant0/1/2	Ant0/1/2/3
DC_14A_n77A	Ant0/1/2	Ant0/1/2/3
DC_25A_n41A	Ant0/1/2/3	Ant0/1/2/3
DC_25A_n77A	Ant0/1/2/3	Ant0/1/2/3
DC_25A_n78A	Ant0/1/2/3	Ant0/1/2/3
DC_26A_n25A	Ant0/1/2	Ant0/1/2/3
DC_26A_n41A	Ant0/1/2	Ant0/1/2/3
DC_2A_n12A	Ant0/1/2/3	Ant0/1
DC_2A_n30A	Ant0/1/2/3	Ant0/1/2/3
DC_2A_n41A	Ant0/1/2/3	Ant0/1/2/3
DC_2A_n5A	Ant0/1/2/3	Ant0/1/2
DC_2A_n66A	Ant0/1/2/3	Ant0/1/2/3
DC_2A_n71A	Ant0/1/2/3	Ant0/1



DC_2A_n77A	Ant0/1/2/3	Ant0/1/2/3
DC_2A_n78A	Ant0/1/2/3	Ant0/1/2/3
DC_2A_n7A	Ant0/1/2/3	Ant0/1/2/3
DC_30A_n2A	Ant0/1/2/3	Ant0/1/2/3
DC_30A_n5A	Ant0/1/2/3	Ant0/1/2
DC_30A_n66A	Ant0/1/2/3	Ant0/1/2/3
DC_30A_n77A	Ant0/1/2/3	Ant0/1/2/3
DC_48A_n5A	Ant0/1/2/3	Ant0/1/2
DC_48A_n66A	Ant0/1/2/3	Ant0/1/2/3
DC_48A_n71A	Ant0/1/2/3	Ant0/1
DC_4A_n41A	Ant0/1/2/3	Ant0/1/2/3
DC_4A_n78A	Ant0/1/2/3	Ant0/1/2/3
DC_4A_n7A	Ant0/1/2/3	Ant0/1/2/3
DC_5A_n2A	Ant0/1/2	Ant0/1/2/3
DC_5A_n30A	Ant0/1/2	Ant0/1/2/3
DC_5A_n66A	Ant0/1/2	Ant0/1/2/3
DC_5A_n77A	Ant0/1/2	Ant0/1/2/3
DC_5A_n78A	Ant0/1/2	Ant0/1/2/3
DC_5A_n7A	Ant0/1/2	Ant0/1/2/3
DC_66A_n12A	Ant0/1/2/3	Ant0/1
DC_66A_n25A	Ant0/1/2/3	Ant0/1/2/3
DC_66A_n2A	Ant0/1/2/3	Ant0/1/2/3
DC_66A_n30A	Ant0/1/2/3	Ant0/1/2/3
DC_66A_n41A	Ant0/1/2/3	Ant0/1/2/3
DC_66A_n5A	Ant0/1/2/3	Ant0/1/2
DC_66A_n71A	Ant0/1/2/3	Ant0/1
DC_66A_n77A	Ant0/1/2/3	Ant0/1/2/3
DC_66A_n78A	Ant0/1/2/3	Ant0/1/2/3
DC_66A_n7A	Ant0/1/2/3	Ant0/1/2/3
DC_71A_n2A	Ant0/1	Ant0/1/2/3
DC_71A_n41A	Ant0/1	Ant0/1/2/3
DC_71A_n66A	Ant0/1	Ant0/1/2/3
DC_71A_n78A	Ant0/1	Ant0/1/2/3
DC_7A_n25A	Ant0/1/2/3	Ant0/1/2/3
DC_7A_n2A	Ant0/1/2/3	Ant0/1/2/3
DC_7A_n5A	Ant0/1/2/3	Ant0/1/2
DC_7A_n66A	Ant0/1/2/3	Ant0/1/2/3
DC_7A_n71A	Ant0/1/2/3	Ant0/1
DC_7A_n77A	Ant0/1/2/3	Ant0/1/2/3
DC_7A_n78A	Ant0/1/2/3	Ant0/1/2/3

NR UL MIMO Bands Configuration:

NR UL MIMO	TX Ant	TX Ant
FR1 n41/n77/n78/n48	Ant0	Ant1/2/3
	Ant1	Ant2/3
	Ant2	Ant3

<WLAN Conducted Power>

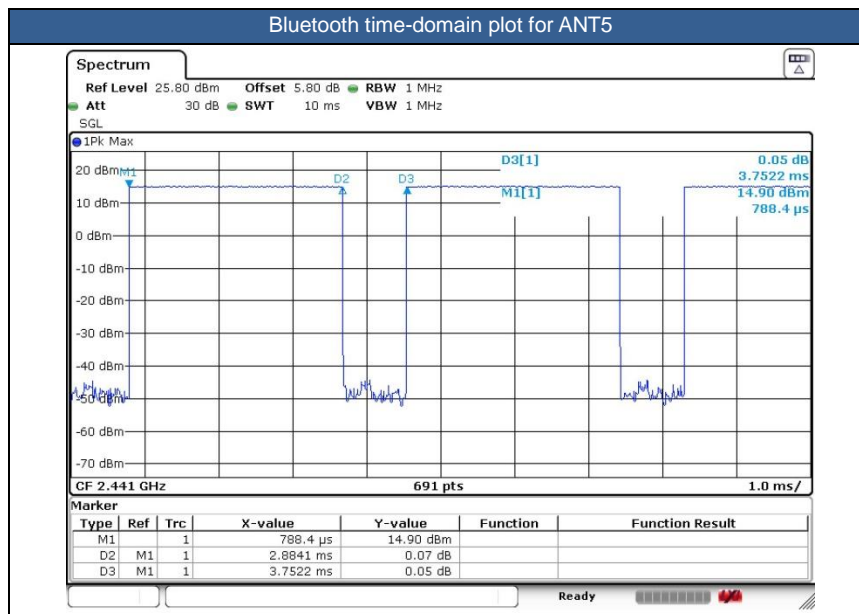
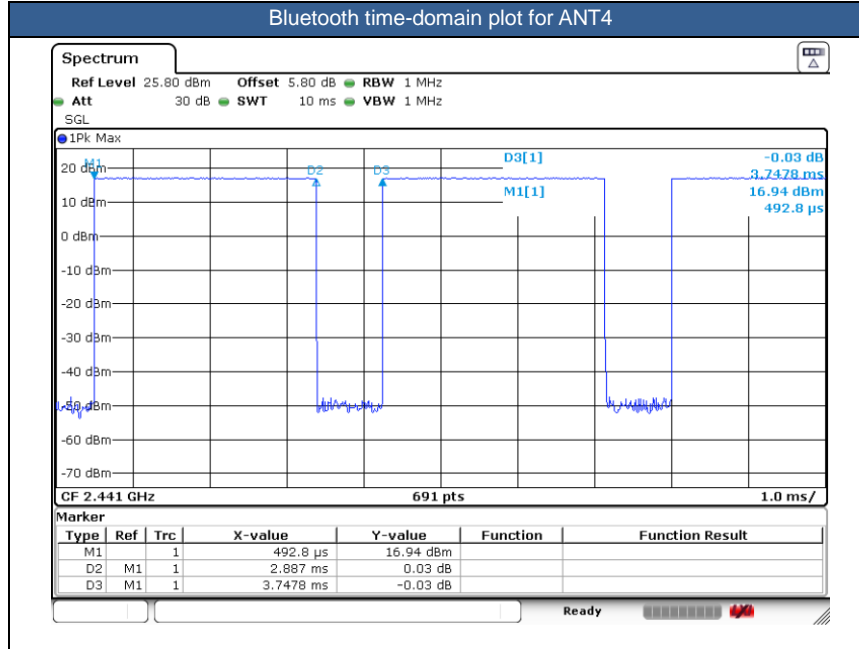
General Note:

1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) 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 in the initial test configuration. Additional output power measurements were not necessary.
2. 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.
3. 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).
4. 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.
5. 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.
6. 802.11ax full tone and partial tone supported for WLAN2.4GHz/WLAN5GHz, after verification for the partial tone power level is far less than full tone power level, so we chose full tone power to be measured in this report.
7. The 2.4GHz/5GHz/6GHz WLAN can transmit in MIMO antenna mode only and it has no SISO 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 77.03% for ANT4, 76.86% for ANT5 as following figure, Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation





15. Antenna Location

The detailed antenna location information can refer to SAR Test Setup Photos.

16. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For SAR testing of Bluetooth signal with 83.3% theoretical duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle) *83.3%".
 - d. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - e. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - f. 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.
 - g. 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 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required 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. The device implements the power management, Hall sensor and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. For WLAN when transmit simultaneous with WWAN, power reduction will be activated to head and Handheld. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and Handheld.
6. This device supports HPUE for LTE Band 41 and 5G NR n41/n77 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
7. For 5G NR n41/n77/n78 HPUE, 5G NR n41/n77 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
8. 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.
9. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
10. 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.
11. 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.
12. Per KDB648474 D04v01r03, when the EUT is in flip open configuration with smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, 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, 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.



- a. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of WCDMA Band II/IV, LTE Band 2/4/7/25/30/66/38/41/48, 5GNR n2/n7/n25/n30/n38/n66/n70/n41/n48/n77/n78, WLAN2.4/5.2GHz, therefore product specific 10g SAR is necessary.
 - b. WLAN 5.3/5.5GHz/6GHz tested the product specific 10g SAR since it has no hotspot mode.
 - c. 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.
13. Although the headset SAR is greater than 0.8 W/kg, the headset SAR verified the worst of the non-headset SAR and less than non-headset SAR, so there is no need to be tested other channels.
 14. Although the distance 1gSAR is greater than 0.8 W/kg at body-worn exposure conditions, the distance SAR verified the worst of the non-distance SAR and less than non-distance SAR, so there is no need to be tested other channels.
 15. According to Nov. 2017 TCB workshop, when the reported SAR for UL CA configuration is <1.2 W/kg, UL CA SAR is not required for all required test channels (PCC based).
 16. As long as either sensor was triggered, conducted power of MIMO mode for ant4 and ant5 could be reduced
 17. The EUT has two work states, flip open and flip close, SAR testing have been evaluated two states. For head mode, only flip open mode is performed SAR testing. When it is in flip close configuration since the diagonal dimension is < 160 mm, 10-g extremity SAR tests are not required. When it is in flip open configuration since the diagonal dimension is > 160 mm and < 200 mm. Therefore, 10-g extremity SAR tests are required when wireless router mode does not apply or if wireless router 1g SAR > 1.2 W/kg. Additional SAR tests for 10-g extremity SAR were evaluated per KDB 616217 Section 6.

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
2. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is \leq ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

WCDMA Note:

1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is \leq 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 to RMC12.2Kbps and the adjusted SAR is \leq 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA, and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA.

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 $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE 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 B2 / B4 / B5 / B17 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41 / B48; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is \leq the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

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 $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, $\pi/2$ BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - e. Smaller bandwidth output power for each RB allocation configuration for this device will not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - f. For 5G FR1 n5 /n7/n12/n25/n26/n66/n71/n41 /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/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next 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. The 2.4GHz/5GHz/6GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.

DSI status description:

The device has the following DSI state which used at different exposure condition.

This WWAN bands enabled with Qualcomm Smart Transmit feature which located at chapter 5. The default power is Pmax power, When Plimit power higher than Pmax power, the output power will be limited at Pmax, and so the SAR will use Pmax power to do the testing.

Exposure Condition	DSI	Trigger conditions
Head SAR-Standalone	DSI 2	Earpiece On
Head SAR-Simultaneous	DSI 2	Earpiece On
Hotspot Mode SAR	DSI 3	Hotspot On_open
Hotspot Mode SAR	DSI 5	Hotspot On_close
Body worn Mode SAR-Standalone	DSI 3	Sensor On_open
Body worn Mode SAR-Simultaneous	DSI 5	Sensor On_close
Body worn Mode SAR-Standalone	DSI 5	Sensor On_close
Body worn Mode SAR-Simultaneous	DSI 5	Sensor On_close
Extremity (Handheld) SAR-Standalone	DSI 6	Sensor On_open
Extremity (Handheld) SAR-Simultaneous	DSI 6	Sensor On_open
Sensor off SAR	DSI 4	Sensor Off_close/open



16.1 Head 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)	
750MHz																			
	LTE Band 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	133322	683	23.04	24.00	1.247	-0.07	0.001	0.001	
	LTE Band 71	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	133322	683	22.94	24.00	1.276	0.17	0.001	0.001	
	LTE Band 71	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	133322	683	23.04	24.00	1.247	-0.11	0.001	0.001	
	LTE Band 71	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	133322	683	22.94	24.00	1.276	-0.03	0.001	0.001	
01	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	133322	683	23.04	24.00	1.247	-0.02	0.075	0.094	
	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	133222	673	22.95	24.00	1.274	0.03	0.066	0.084	
	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	133372	688	22.89	24.00	1.291	-0.01	0.063	0.081	
	LTE Band 71	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	133322	683	22.94	24.00	1.276	-0.01	0.001	0.001	
	LTE Band 71	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	133322	683	23.04	24.00	1.247	-0.08	0.001	0.001	
	LTE Band 71	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	133322	683	22.94	24.00	1.276	-0.03	0.001	0.001	
	LTE Band 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	133322	683	21.85	23.00	1.303	0.06	0.049	0.064	
	LTE Band 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	133222	673	21.76	23.00	1.330	0.03	0.045	0.060	
	LTE Band 71	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	133372	688	21.76	23.00	1.330	0.01	0.038	0.051	
	LTE Band 71	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	133322	683	21.79	23.00	1.321	0.17	0.001	0.001	
	LTE Band 71	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	133322	683	21.85	23.00	1.303	-0.06	0.001	0.001	
	LTE Band 71	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	133322	683	21.79	23.00	1.321	0.03	0.001	0.001	
	LTE Band 71	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	133322	683	21.85	23.00	1.303	0.12	0.041	0.053	
	LTE Band 71	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	133322	683	21.79	23.00	1.321	-0.06	0.001	0.001	
	LTE Band 71	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	133322	683	21.85	23.00	1.303	0.06	0.001	0.001	
	LTE Band 71	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	133322	683	21.79	23.00	1.321	0.1	0.001	0.001	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.92	24.00	1.282	0.02	0.136	0.174	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23060	704	22.84	24.00	1.306	-0.09	0.122	0.159	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23130	711	22.79	24.00	1.321	-0.02	0.118	0.156	
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.82	24.00	1.312	-0.05	0.112	0.147	
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.92	24.00	1.282	0.13	0.079	0.101	
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.82	24.00	1.312	0.17	0.064	0.084	
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.92	24.00	1.282	-0.11	0.109	0.140	
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.82	24.00	1.312	0.01	0.092	0.121	
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.92	24.00	1.282	0.01	0.065	0.083	
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.82	24.00	1.312	-0.01	0.053	0.070	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	23095	707.5	21.73	23.00	1.340	0.02	0.072	0.096	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	23060	704	21.61	23.00	1.377	0.08	0.066	0.091	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	23130	711	21.68	23.00	1.355	-0.01	0.065	0.088	
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 2	23095	707.5	21.70	23.00	1.349	0.04	0.060	0.081	
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	23095	707.5	21.73	23.00	1.340	0.17	0.001	0.001	
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 2	23095	707.5	21.70	23.00	1.349	0.03	0.001	0.001	
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	23095	707.5	21.73	23.00	1.340	0.18	0.071	0.095	
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 2	23095	707.5	21.70	23.00	1.349	0.16	0.059	0.080	
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	23095	707.5	21.73	23.00	1.340	-0.04	0.001	0.001	
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 2	23095	707.5	21.70	23.00	1.349	0.16	0.001	0.001	
02	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	23095	707.5	22.59	24.00	1.384	0.04	0.220	0.304	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	23060	704	22.51	24.00	1.409	0.06	0.211	0.297	
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	23130	711	22.50	24.00	1.413	-0.18	0.209	0.295	
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 2	DSI 2	23095	707.5	22.55	24.00	1.396	-0.18	0.174	0.243	
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	23095	707.5	22.59	24.00	1.384	-0.16	0.195	0.270	
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 2	DSI 2	23095	707.5	22.55	24.00	1.396	-0.09	0.159	0.222	
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	23095	707.5	22.59	24.00	1.384	0.07	0.121	0.167	
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 2	DSI 2	23095	707.5	22.55	24.00	1.396	0.18	0.100	0.140	
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	23095	707.5	22.59	24.00	1.384	0.02	0.129	0.178	
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 2	DSI 2	23095	707.5	22.55	24.00	1.396	-0.01	0.102	0.142	
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	23.07	24.00	1.239	-0.04	0.118	0.146	
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	22.98	24.00	1.265	-0.14	0.078	0.099	



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	23.07	24.00	1.239	0.11	0.056	0.069
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	22.98	24.00	1.265	-0.01	0.047	0.059
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	23.07	24.00	1.239	-0.03	0.074	0.092
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	22.98	24.00	1.265	-0.18	0.062	0.078
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	23.07	24.00	1.239	0.04	0.048	0.059
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	22.98	24.00	1.265	-0.06	0.039	0.049
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	23230	782	21.67	23.00	1.358	0.01	0.047	0.064
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 2	23230	782	21.63	23.00	1.371	-0.04	0.040	0.055
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	23230	782	21.67	23.00	1.358	-0.1	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 2	23230	782	21.63	23.00	1.371	0.07	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	23230	782	21.67	23.00	1.358	0.16	0.046	0.062
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 2	23230	782	21.63	23.00	1.371	-0.02	0.037	0.051
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	23230	782	21.67	23.00	1.358	0.11	0.030	0.041
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 2	23230	782	21.63	23.00	1.371	-0.13	0.001	0.001
03	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	23230	782	22.53	24.00	1.403	0.01	0.871	1.222
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	23230	782	22.53	23.60	1.279	-0.12	0.766	0.980
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 2	DSI 2	23230	782	22.45	24.00	1.429	-0.06	0.696	0.995
	LTE Band 13	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	23230	782	22.32	24.00	1.472	-0.18	0.708	1.042
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	23230	782	22.53	24.00	1.403	-0.05	0.728	1.021
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 2	DSI 2	23230	782	22.45	24.00	1.429	0.06	0.603	0.862
	LTE Band 13	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	23230	782	22.32	24.00	1.472	0.13	0.606	0.892
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	23230	782	22.53	24.00	1.403	0.12	0.532	0.746
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 2	DSI 2	23230	782	22.45	24.00	1.429	-0.14	0.434	0.620
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	23230	782	22.53	24.00	1.403	-0.12	0.536	0.752
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 2	DSI 2	23230	782	22.45	24.00	1.429	0.08	0.438	0.626
	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23330	793	23.06	24.00	1.242	0.04	0.148	0.184
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23330	793	22.95	24.00	1.274	0.12	0.122	0.155
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23330	793	23.06	24.00	1.242	0.14	0.087	0.108
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23330	793	22.95	24.00	1.274	-0.1	0.070	0.089
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23330	793	23.06	24.00	1.242	0.07	0.121	0.150
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23330	793	22.95	24.00	1.274	-0.13	0.099	0.126
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23330	793	23.06	24.00	1.242	-0.09	0.074	0.092
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23330	793	22.95	24.00	1.274	0.19	0.060	0.076
	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	23330	793	21.72	23.00	1.343	0.07	0.073	0.098
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 2	23330	793	21.68	23.00	1.355	0.19	0.059	0.080
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	23330	793	21.72	23.00	1.343	0.17	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 2	23330	793	21.68	23.00	1.355	0.03	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	23330	793	21.72	23.00	1.343	-0.17	0.069	0.093
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 2	23330	793	21.68	23.00	1.355	-0.03	0.056	0.076
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	23330	793	21.72	23.00	1.343	-0.16	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 2	23330	793	21.68	23.00	1.355	-0.12	0.001	0.001
04	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	23330	793	22.62	24.00	1.374	-0.08	0.837	1.150
	LTE Band 14	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	23330	793	22.62	23.60	1.253	0.08	0.724	0.907
	LTE Band 14	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 2	DSI 2	23330	793	22.50	24.00	1.413	0.11	0.678	0.958
	LTE Band 14	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	23330	793	22.44	24.00	1.432	0.18	0.672	0.962
	LTE Band 14	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	23330	793	22.62	24.00	1.374	-0.1	0.720	0.989
	LTE Band 14	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 2	DSI 2	23330	793	22.50	24.00	1.413	0.17	0.580	0.819
	LTE Band 14	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	23330	793	22.44	24.00	1.432	0.03	0.580	0.831
	LTE Band 14	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	23330	793	22.62	24.00	1.374	0.06	0.450	0.618
	LTE Band 14	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 2	DSI 2	23330	793	22.50	24.00	1.413	0.18	0.360	0.509
	LTE Band 14	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	23330	793	22.62	24.00	1.374	0.04	0.514	0.706
	LTE Band 14	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 2	DSI 2	23330	793	22.50	24.00	1.413	0.05	0.418	0.590
05	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	141500	707.5	23.19	24.00	1.205	-0.07	0.128	0.154
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	141300	706.5	23.13	24.00	1.222	0.06	0.115	0.141
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	141700	708.5	23.12	24.00	1.225	0.09	0.108	0.132
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	141500	707.5	23.06	24.00	1.242	0.14	0.121	0.150
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	141500	707.5	23.19	24.00	1.205	-0.13	0.081	0.098



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	141500	707.5	23.06	24.00	1.242	-0.08	0.082	0.102
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	141500	707.5	23.19	24.00	1.205	0.06	0.104	0.125
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	141500	707.5	23.06	24.00	1.242	-0.18	0.098	0.122
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	141500	707.5	23.19	24.00	1.205	-0.04	0.062	0.075
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	141500	707.5	23.06	24.00	1.242	0.06	0.061	0.076
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	141500	707.5	21.95	23.00	1.274	0.04	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	141500	707.5	21.86	23.00	1.300	-0.08	0.044	0.057
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	141500	707.5	21.95	23.00	1.274	0.11	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	141500	707.5	21.86	23.00	1.300	-0.06	0.001	0.001
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	141500	707.5	21.95	23.00	1.274	0.01	0.049	0.062
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	141300	706.5	21.87	23.00	1.297	0.09	0.041	0.053
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	141700	708.5	21.82	23.00	1.312	0.05	0.039	0.051
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	141500	707.5	21.86	23.00	1.300	0.17	0.042	0.055
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	141500	707.5	21.95	23.00	1.274	0.02	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	141500	707.5	21.86	23.00	1.300	-0.04	0.001	0.001
06	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	156400	782	23.29	24.00	1.178	-0.09	0.076	0.089
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	156400	782	23.19	24.00	1.205	0.05	0.070	0.084
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	156400	782	23.29	24.00	1.178	-0.15	0.047	0.055
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	156400	782	23.19	24.00	1.205	-0.01	0.001	0.001
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	156400	782	23.29	24.00	1.178	-0.06	0.057	0.067
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	156400	782	23.19	24.00	1.205	0.11	0.055	0.066
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	156400	782	23.29	24.00	1.178	-0.08	0.001	0.001
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	156400	782	23.19	24.00	1.205	0.17	0.001	0.001
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	156400	782	21.94	23.00	1.276	0.04	0.048	0.061
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	156400	782	21.89	23.00	1.291	-0.13	0.045	0.058
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	156400	782	21.94	23.00	1.276	0.16	0.001	0.001
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	156400	782	21.89	23.00	1.291	0.17	0.001	0.001
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	156400	782	21.94	23.00	1.276	-0.14	0.044	0.056
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	156400	782	21.89	23.00	1.291	0.05	0.044	0.057
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	156400	782	21.94	23.00	1.276	0.08	0.001	0.001
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	156400	782	21.89	23.00	1.291	-0.09	0.001	0.001
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	158600	793	23.43	24.00	1.140	-0.03	0.096	0.109
07	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	158600	793	23.39	24.00	1.151	-0.02	0.101	0.116
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	158600	793	23.43	24.00	1.140	-0.09	0.058	0.066
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	158600	793	23.39	24.00	1.151	0.01	0.060	0.069
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	158600	793	23.43	24.00	1.140	0.05	0.077	0.088
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	158600	793	23.39	24.00	1.151	0.02	0.081	0.093
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	158600	793	23.43	24.00	1.140	0.13	0.048	0.055
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	158600	793	23.39	24.00	1.151	-0.08	0.050	0.058
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	158600	793	22.04	23.00	1.247	0.09	0.047	0.059
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	158600	793	21.99	23.00	1.262	-0.06	0.042	0.053
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	158600	793	22.04	23.00	1.247	0.02	0.001	0.001
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	158600	793	21.99	23.00	1.262	0.08	0.001	0.001
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	158600	793	22.04	23.00	1.247	-0.06	0.046	0.057
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	158600	793	21.99	23.00	1.262	-0.08	0.042	0.053
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	158600	793	22.04	23.00	1.247	0.15	0.001	0.001
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	158600	793	21.99	23.00	1.262	0.04	0.001	0.001
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	136100	680.5	23.38	24.00	1.153	-0.02	0.102	0.118
08	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	136100	680.5	23.33	24.00	1.167	0.06	0.115	0.134
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	134600	673	23.20	24.00	1.202	-0.07	0.108	0.130
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	137600	688	23.21	24.00	1.199	0.03	0.109	0.131
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	136100	680.5	23.38	24.00	1.153	-0.11	0.001	0.001
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	136100	680.5	23.33	24.00	1.167	0.11	0.069	0.081
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	136100	680.5	23.38	24.00	1.153	-0.1	0.086	0.099
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	136100	680.5	23.33	24.00	1.167	0.17	0.100	0.117
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	136100	680.5	23.38	24.00	1.153	0.06	0.001	0.001
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	136100	680.5	23.33	24.00	1.167	0.11	0.001	0.001



FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	136100	680.5	22.22	23.00	1.197	0.04	0.039	0.047	
FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	134600	673	22.14	23.00	1.219	0.08	0.035	0.043	
FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	137600	688	22.08	23.00	1.236	-0.19	0.031	0.038	
FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	136100	680.5	22.17	23.00	1.211	-0.03	0.012	0.015	
FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	136100	680.5	22.22	23.00	1.197	-0.14	0.010	0.012	
FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	136100	680.5	22.17	23.00	1.211	0.09	0.008	0.010	
FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	136100	680.5	22.22	23.00	1.197	-0.16	0.006	0.007	
FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	136100	680.5	22.17	23.00	1.211	-0.02	0.003	0.004	
FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	136100	680.5	22.22	23.00	1.197	-0.03	0.004	0.005	
FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	136100	680.5	22.17	23.00	1.211	-0.02	0.001	0.001	
835MHz																		
09	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	189	836.4	28.98	30.00	1.265	-0.04	0.038	0.048
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	128	824.2	28.91	30.00	1.285	0.09	0.032	0.041
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	251	848.8	28.86	30.00	1.300	0.02	0.031	0.040
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 0	DSI 2	189	836.4	28.98	30.00	1.265	-0.03	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	189	836.4	28.98	30.00	1.265	-0.14	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 0	DSI 2	189	836.4	28.98	30.00	1.265	-0.11	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	189	836.4	26.91	28.00	1.285	-0.02	0.011	0.014
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	128	824.2	26.80	28.00	1.318	0.03	0.009	0.012
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	251	848.8	26.80	28.00	1.318	0.05	0.008	0.011
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	189	836.4	26.91	28.00	1.285	0.06	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 1	DSI 2	189	836.4	26.91	28.00	1.285	0.17	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 1	DSI 2	189	836.4	26.91	28.00	1.285	0.09	0.001	0.001
10	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	4182	836.4	22.52	24.00	1.406	-0.08	0.049	0.069
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	4132	826.4	22.45	24.00	1.429	0.07	0.043	0.061
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	4233	846.6	22.46	24.00	1.426	0.06	0.039	0.056
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	4182	836.4	22.52	24.00	1.406	0.14	0.029	0.041
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	4182	836.4	22.52	24.00	1.406	0.19	0.041	0.058
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	4182	836.4	22.52	24.00	1.406	-0.02	0.024	0.034
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	4182	836.4	21.23	23.00	1.503	-0.05	0.040	0.061
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	4132	826.4	21.17	23.00	1.524	0.02	0.036	0.055
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	4233	846.6	21.09	23.00	1.552	-0.01	0.031	0.048
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	4182	836.4	21.23	23.00	1.503	-0.13	0.001	0.002
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	4182	836.4	21.23	23.00	1.503	0.06	0.035	0.053
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	4182	836.4	21.23	23.00	1.503	-0.03	0.021	0.032
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	22.59	24.00	1.384	-0.05	0.109	0.151
	LTE Band 5B	10M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 2	20476+ 20575	831.6+ 841.5	22.44	24.00	1.432	-0.02	0.086	0.123
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	22.54	24.00	1.400	-0.11	0.092	0.129
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	22.59	24.00	1.384	0.05	0.061	0.084
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	22.54	24.00	1.400	0.06	0.051	0.071
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	22.59	24.00	1.384	0.17	0.093	0.129
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	22.54	24.00	1.400	0.17	0.078	0.109
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	22.59	24.00	1.384	0.14	0.054	0.075
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	22.54	24.00	1.400	0.09	0.045	0.063
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.38	22.00	1.153	0.08	0.051	0.058
	LTE Band 5B	10M	QPSK	1	49	-	Right Cheek	0mm	Ant 1	DSI 2	20476+ 20575	831.6+ 841.5	21.02	22.00	1.253	0.17	0.042	0.053
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.33	22.00	1.167	-0.14	0.042	0.049
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.38	22.00	1.153	0.18	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.33	22.00	1.167	-0.06	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.38	22.00	1.153	-0.05	0.043	0.050
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 2	26865	831.5	21.33	22.00	1.167	-0.02	0.037	0.043
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.38	22.00	1.153	0.02	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI 2	26865	831.5	21.33	22.00	1.167	-0.16	0.001	0.001
11	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	26865	831.5	22.24	23.00	1.191	0.11	0.767	0.914
	LTE Band 5B	10M	QPSK	1	49	-	Right Cheek	0mm	Ant 2	DSI 2	20476+ 20575	831.6+ 841.5	21.87	23.00	1.297	0.14	0.700	0.908
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 2	DSI 2	26865	831.5	22.20	23.00	1.202	-0.02	0.637	0.766
	LTE Band 26	15M	QPSK	75	0	-	Right Cheek	0mm	Ant 2	DSI 2	26865	831.5	22.05	23.00	1.245	-0.18	0.644	0.801



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	26865	831.5	22.24	23.00	1.191	-0.07	0.628	0.748
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 2	DSI 2	26865	831.5	22.20	23.00	1.202	0.09	0.524	0.630
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	26865	831.5	22.24	23.00	1.191	0.05	0.462	0.550
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 2	DSI 2	26865	831.5	22.20	23.00	1.202	0.17	0.387	0.465
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	26865	831.5	22.24	23.00	1.191	0.19	0.465	0.554
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 2	DSI 2	26865	831.5	22.20	23.00	1.202	0.13	0.389	0.468
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.49	24.00	1.125	-0.06	0.092	0.103
12	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.43	24.00	1.140	0.05	0.097	0.111
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.49	24.00	1.125	0.16	0.055	0.062
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.43	24.00	1.140	-0.17	0.057	0.065
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.49	24.00	1.125	0.03	0.078	0.088
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.43	24.00	1.140	0.14	0.083	0.095
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.49	24.00	1.125	0.11	0.043	0.048
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.43	24.00	1.140	0.09	0.048	0.055
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	166300	831.5	22.15	23.00	1.216	0.08	0.001	0.001
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	166300	831.5	22.12	23.00	1.225	-0.09	0.068	0.083
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	166300	831.5	22.15	23.00	1.216	0.16	0.001	0.001
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	166300	831.5	22.12	23.00	1.225	-0.14	0.001	0.001
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	166300	831.5	22.15	23.00	1.216	-0.19	0.001	0.001
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	166300	831.5	22.12	23.00	1.225	0.01	0.063	0.077
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	166300	831.5	22.15	23.00	1.216	0.1	0.001	0.001
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	166300	831.5	22.12	23.00	1.225	-0.15	0.001	0.001
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	167300	836.5	22.65	24.00	1.365	0.17	0.653	0.891
13	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	167300	836.5	22.62	24.00	1.374	-0.14	0.659	0.905
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	166800	834	22.55	24.00	1.396	0.06	0.613	0.856
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	167800	839	22.57	24.00	1.390	0.03	0.598	0.831
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	167300	836.5	22.56	24.00	1.393	0.16	0.642	0.894
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	167300	836.5	22.65	24.00	1.365	-0.14	0.618	0.843
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	167300	836.5	22.62	24.00	1.374	-0.14	0.586	0.805
	FR1 n5	20M	QPSK	100	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	167300	836.5	22.56	24.00	1.393	-0.19	0.580	0.808
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	167300	836.5	22.65	24.00	1.365	0.02	0.460	0.628
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	167300	836.5	22.62	24.00	1.374	-0.11	0.429	0.589
	FR1 n5	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	167300	836.5	22.65	24.00	1.365	-0.14	0.467	0.637
	FR1 n5	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	167300	836.5	22.62	24.00	1.374	0.02	0.437	0.600
1750MHz																		
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	1413	1732.6	20.51	22.00	1.409	-0.04	0.086	0.121
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	1312	1712.4	20.45	22.00	1.429	0.03	0.075	0.107
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	1513	1752.6	20.41	22.00	1.442	-0.16	0.075	0.108
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	1413	1732.6	20.51	22.00	1.409	0.01	0.001	0.001
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	1413	1732.6	20.51	22.00	1.409	0.18	0.001	0.001
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	1413	1732.6	20.51	22.00	1.409	0.03	0.001	0.001
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	1413	1732.6	21.49	23.00	1.416	0.01	0.047	0.067
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	1312	1712.4	21.45	23.00	1.429	0.07	0.039	0.056
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	1513	1752.6	21.37	23.00	1.455	-0.14	0.035	0.051
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	1413	1732.6	21.49	23.00	1.416	0.09	0.001	0.001
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	1413	1732.6	21.49	23.00	1.416	-0.07	0.001	0.001
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	1413	1732.6	21.49	23.00	1.416	0.04	0.001	0.001
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 2	1413	1732.6	21.53	22.50	1.250	0.05	0.989	1.237
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 2	1312	1712.4	21.47	22.50	1.268	0.19	0.935	1.185
14	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 2	1513	1752.6	21.44	22.50	1.276	0.19	0.974	1.243
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	1513	1752.6	20.91	21.70	1.199	0.05	0.777	0.932
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 2	1413	1732.6	21.53	22.50	1.250	0.06	0.951	1.189
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 2	1312	1712.4	21.47	22.50	1.268	0.04	0.882	1.118
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 2	1513	1752.6	21.44	22.50	1.276	0.02	0.951	1.214
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 2	1413	1732.6	21.53	22.50	1.250	0.07	0.353	0.441
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 2	1413	1732.6	21.53	22.50	1.250	0.07	0.325	0.406
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 2	1413	1732.6	19.48	20.70	1.324	0.02	0.673	0.891



FCC SAR Test Report

Report No. : FA2D0913

WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 2	1312	1712.4	19.34	20.70	1.368	0.03	0.641	0.877
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 2	1513	1752.6	19.37	20.70	1.358	0.02	0.657	0.892
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 2	1413	1732.6	19.48	20.70	1.324	0.1	0.726	0.961
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 2	1312	1712.4	19.34	20.70	1.368	0.07	0.713	0.975
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 2	1513	1752.6	19.37	20.70	1.358	0.01	0.679	0.922
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2	1413	1732.6	19.48	20.70	1.324	0.08	0.929	1.230
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	1413	1732.6	18.53	19.90	1.371	0.16	0.720	0.987
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2	1312	1712.4	19.34	20.70	1.368	0.11	0.894	1.223
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2	1513	1752.6	19.37	20.70	1.358	0.02	0.901	1.224
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 2	1413	1732.6	19.48	20.70	1.324	0.07	0.782	1.036
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 2	1312	1712.4	19.34	20.70	1.368	0.03	0.744	1.018
WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 2	1513	1752.6	19.37	20.70	1.358	0.13	0.757	1.028
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	23.22	24.00	1.197	0.02	0.102	0.122
LTE Band 66C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 0	DSI 2	132322+132520	1745+1764.8	23.16	24.00	1.213	0.02	0.089	0.108
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132072	1720	23.17	24.00	1.211	0.06	0.099	0.120
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	132572	1770	23.14	24.00	1.219	-0.12	0.081	0.099
LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	132322	1745	23.18	24.00	1.208	-0.16	0.015	0.018
LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	132322	1745	23.22	24.00	1.197	0.15	0.009	0.011
LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	132322	1745	23.18	24.00	1.208	-0.17	0.007	0.008
LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	132322	1745	23.22	24.00	1.197	0.02	0.010	0.012
LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	132322	1745	23.18	24.00	1.208	-0.1	0.008	0.010
LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	132322	1745	23.22	24.00	1.197	-0.12	0.010	0.012
LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	132322	1745	23.18	24.00	1.208	-0.07	0.008	0.010
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	21.12	22.00	1.225	-0.01	0.046	0.056
LTE Band 66C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	DSI 2	132322+132520	1745+1764.8	21.02	22.00	1.253	0.19	0.041	0.051
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132072	1720	21.03	22.00	1.250	0.08	0.042	0.053
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132572	1770	20.97	22.00	1.268	-0.12	0.039	0.049
LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	21.07	22.00	1.239	0.08	0.001	0.001
LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	132322	1745	21.12	22.00	1.225	-0.06	0.001	0.001
LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	132322	1745	21.07	22.00	1.239	-0.04	0.001	0.001
LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	132322	1745	21.12	22.00	1.225	-0.07	0.001	0.001
LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	132322	1745	21.07	22.00	1.239	0.15	0.001	0.001
LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	132322	1745	21.12	22.00	1.225	0.02	0.001	0.001
LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	132322	1745	21.07	22.00	1.239	0.13	0.001	0.001
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	132322	1745	21.41	22.00	1.146	-0.16	0.764	0.875
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	132072	1720	21.34	22.00	1.164	0.05	0.706	0.822
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	132572	1770	21.37	22.00	1.156	0.12	0.790	0.913
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	132572+132374	1770+1750.2	21.31	22.00	1.172	-0.12	0.732	0.858
LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	132322	1745	21.35	22.00	1.161	0.15	0.616	0.715
LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	132072	1720	21.22	22.00	1.197	0.04	0.596	0.713
LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	132572	1770	21.22	22.00	1.197	-0.03	0.623	0.746
LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 2	132322	1745	21.28	22.00	1.180	-0.1	0.639	0.754
LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	132322	1745	21.41	22.00	1.146	0.19	0.732	0.839
LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	132072	1720	21.34	22.00	1.164	-0.18	0.668	0.778
LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	132572	1770	21.37	22.00	1.156	0.03	0.687	0.794
LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	132322	1745	21.35	22.00	1.161	0.04	0.566	0.657
LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	132072	1720	21.22	22.00	1.197	0.02	0.547	0.655
LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	132572	1770	21.22	22.00	1.197	-0.02	0.574	0.687
LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 2	DSI 2	132322	1745	21.28	22.00	1.180	0.11	0.577	0.681
LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	132322	1745	21.41	22.00	1.146	0.05	0.277	0.317
LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 2	132322	1745	21.35	22.00	1.161	-0.08	0.213	0.247
LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	132322	1745	21.41	22.00	1.146	-0.12	0.253	0.290
LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 2	132322	1745	21.35	22.00	1.161	0.03	0.200	0.232
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	132322	1745	19.96	21.40	1.393	0.05	0.638	0.889
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	132072	1720	19.91	21.40	1.409	0.05	0.614	0.865
LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	132572	1770	19.82	21.40	1.439	0.06	0.610	0.878
LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 2	132322	1745	19.90	21.40	1.413	-0.12	0.510	0.720



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	DSI 2	132322	1745	19.85	21.40	1.429	-0.15	0.486	0.694
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	132322	1745	19.96	21.40	1.393	0.07	0.693	0.965
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	132072	1720	19.91	21.40	1.409	0.14	0.690	0.972
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	132572	1770	19.82	21.40	1.439	0.02	0.662	0.952
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	132322	1745	19.90	21.40	1.413	0.05	0.555	0.784
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 3	DSI 2	132322	1745	19.85	21.40	1.429	-0.11	0.531	0.759
15	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	132322	1745	19.96	21.40	1.393	-0.02	0.900	1.254
	LTE Band 66C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 3	DSI 2	132322+132520	1745+1764.8	19.81	21.40	1.442	0.05	0.816	1.177
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	132322	1745	18.96	20.20	1.330	-0.03	0.735	0.978
	LTE Band 66C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	132322+132520	1745+1764.8	18.76	20.20	1.393	-0.08	0.698	0.972
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	132072	1720	19.91	21.40	1.409	0.05	0.876	1.235
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	132572	1770	19.82	21.40	1.439	0.08	0.866	1.246
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	132322	1745	19.90	21.40	1.413	0.01	0.710	1.003
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	132072	1720	19.82	21.40	1.439	-0.18	0.717	1.032
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	132572	1770	19.83	21.40	1.435	-0.1	0.676	0.970
	LTE Band 66	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	DSI 2	132322	1745	19.85	21.40	1.429	0.05	0.669	0.956
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	132322	1745	19.96	21.40	1.393	0.04	0.703	0.979
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	132072	1720	19.91	21.40	1.409	0.07	0.690	0.972
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	132572	1770	19.82	21.40	1.439	0.07	0.672	0.967
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	132322	1745	19.90	21.40	1.413	-0.01	0.586	0.828
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	132072	1720	19.82	21.40	1.439	0.01	0.566	0.814
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	132572	1770	19.83	21.40	1.435	0.04	0.566	0.812
	LTE Band 66	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 3	DSI 2	132322	1745	19.85	21.40	1.429	-0.16	0.559	0.799
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	23.45	24.00	1.135	-0.09	0.126	0.143
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	346000	1730	23.26	24.00	1.186	0.03	0.112	0.133
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	352000	1760	23.40	24.00	1.148	-0.12	0.109	0.125
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	349000	1745	23.39	24.00	1.151	0.03	0.116	0.133
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	349000	1745	23.45	24.00	1.135	-0.08	0.059	0.067
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	349000	1745	23.39	24.00	1.151	0.05	0.056	0.064
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	349000	1745	23.45	24.00	1.135	-0.18	0.069	0.078
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	349000	1745	23.39	24.00	1.151	-0.17	0.064	0.074
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	349000	1745	23.45	24.00	1.135	-0.02	0.072	0.082
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	349000	1745	23.39	24.00	1.151	0.01	0.066	0.076
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	21.79	23.00	1.321	0.02	0.025	0.033
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	346000	1730	21.67	23.00	1.358	0.09	0.022	0.030
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	352000	1760	21.74	23.00	1.337	-0.18	0.017	0.023
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	21.74	23.00	1.337	-0.03	0.001	0.001
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	349000	1745	21.79	23.00	1.321	0.09	0.001	0.001
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	349000	1745	21.74	23.00	1.337	0.03	0.001	0.001
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	349000	1745	21.79	23.00	1.321	-0.11	0.001	0.001
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	349000	1745	21.74	23.00	1.337	0.02	0.001	0.001
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	349000	1745	21.79	23.00	1.321	0.11	0.001	0.001
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	349000	1745	21.74	23.00	1.337	0.19	0.001	0.001
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	349000	1745	20.59	21.00	1.099	0.08	0.867	0.953
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	349000	1745	20.50	21.00	1.122	0.04	0.993	1.114
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	349000	1745	19.45	20.00	1.135	0.02	0.779	0.884
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	346000	1730	20.46	21.00	1.132	0.15	0.921	1.043
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	352000	1760	20.39	21.00	1.151	0.01	0.933	1.074
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	349000	1745	20.46	21.00	1.132	-0.08	0.741	0.839
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	349000	1745	20.59	21.00	1.099	0.05	0.801	0.880
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	349000	1745	20.50	21.00	1.122	-0.19	0.953	1.069
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	349000	1745	20.46	21.00	1.132	-0.12	0.708	0.802
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	349000	1745	20.59	21.00	1.099	0.03	0.302	0.332
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	349000	1745	20.50	21.00	1.122	-0.07	0.347	0.389
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	349000	1745	20.59	21.00	1.099	0.08	0.275	0.302
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	349000	1745	20.50	21.00	1.122	-0.1	0.324	0.364
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	349000	1745	19.32	20.60	1.343	-0.12	0.634	0.851



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	349000	1745	19.26	20.60	1.361	-0.15	0.625	0.851
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	349000	1745	19.21	20.60	1.377	-0.13	0.634	0.873
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	349000	1745	19.32	20.60	1.343	0.07	0.723	0.971
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	349000	1745	19.26	20.60	1.361	-0.13	0.699	0.952
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	349000	1745	19.21	20.60	1.377	0.14	0.685	0.943
16	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	349000	1745	19.32	20.60	1.343	0.08	0.923	1.239
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	349000	1745	18.40	19.80	1.380	0.09	0.715	0.987
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	346000	1730	19.30	20.60	1.349	0.13	0.902	1.217
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	352000	1760	19.27	20.60	1.358	-0.02	0.897	1.218
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	349000	1745	19.26	20.60	1.361	-0.15	0.872	1.187
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	349000	1745	19.21	20.60	1.377	-0.13	0.894	1.231
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	349000	1745	19.32	20.60	1.343	0.17	0.741	0.995
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	349000	1745	19.26	20.60	1.361	-0.1	0.760	1.035
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	349000	1745	19.21	20.60	1.377	-0.17	0.741	1.021
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	340500	1702.5	21.00	22.00	1.259	0.04	0.058	0.073
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	340500	1702.5	20.82	22.00	1.312	0.01	0.068	0.089
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	340500	1702.5	21.00	22.00	1.259	-0.05	0.001	0.001
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	340500	1702.5	20.82	22.00	1.312	-0.03	0.001	0.001
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	340500	1702.5	21.00	22.00	1.259	0.05	0.001	0.001
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	340500	1702.5	20.82	22.00	1.312	0.11	0.001	0.001
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	340500	1702.5	21.00	22.00	1.259	0.02	0.001	0.001
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	340500	1702.5	20.82	22.00	1.312	-0.16	0.001	0.001
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	340500	1702.5	21.95	23.00	1.274	-0.02	0.001	0.001
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	340500	1702.5	21.88	23.00	1.294	0.05	0.001	0.001
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	340500	1702.5	21.95	23.00	1.274	0.12	0.001	0.001
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	340500	1702.5	21.88	23.00	1.294	-0.09	0.001	0.001
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	340500	1702.5	21.95	23.00	1.274	0.03	0.001	0.001
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	340500	1702.5	21.88	23.00	1.294	0.01	0.035	0.045
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	340500	1702.5	21.95	23.00	1.274	-0.03	0.001	0.001
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	340500	1702.5	21.88	23.00	1.294	-0.19	0.001	0.001
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	340500	1702.5	21.15	22.40	1.334	0.17	0.851	1.135
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	340500	1702.5	21.09	22.40	1.352	-0.08	0.926	1.252
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	340500	1702.5	20.59	21.00	1.099	-0.03	0.789	0.867
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	340500	1702.5	21.14	22.00	1.219	0.14	0.884	1.078
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	340500	1702.5	21.15	22.40	1.334	0.07	0.732	0.976
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	340500	1702.5	21.09	22.40	1.352	-0.12	0.790	1.068
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	340500	1702.5	21.14	22.00	1.219	0.03	0.803	0.979
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	340500	1702.5	21.15	22.40	1.334	-0.06	0.319	0.425
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	340500	1702.5	21.09	22.40	1.352	-0.08	0.354	0.479
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	340500	1702.5	21.15	22.40	1.334	0.11	0.264	0.352
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	340500	1702.5	21.09	22.40	1.352	0.05	0.294	0.398
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	340500	1702.5	21.02	22.20	1.312	0.04	0.574	0.753
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	340500	1702.5	20.99	22.20	1.321	0.08	0.705	0.932
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	340500	1702.5	20.95	22.20	1.334	0.15	0.717	0.956
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	340500	1702.5	21.02	22.20	1.312	0.16	0.643	0.844
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	340500	1702.5	20.99	22.20	1.321	0.1	0.842	1.113
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	340500	1702.5	20.95	22.20	1.334	0.03	0.847	1.129
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	340500	1702.5	21.02	22.20	1.312	-0.03	0.779	1.022
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	340500	1702.5	20.99	22.20	1.321	-0.14	0.768	1.015
17	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	340500	1702.5	20.95	22.20	1.334	-0.01	0.944	1.259
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	340500	1702.5	19.98	21.10	1.294	0.09	0.756	0.978
	FR1 n70	15M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	340500	1702.5	21.02	22.20	1.312	0.07	0.671	0.880
	FR1 n70	15M	QPSK	36	22	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	340500	1702.5	20.99	22.20	1.321	0.12	0.887	1.172
	FR1 n70	15M	QPSK	75	0	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	340500	1702.5	20.95	22.20	1.334	-0.06	0.836	1.115
1900MHz																		
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	661	1880	23.39	24.50	1.291	0.01	0.023	0.030
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	512	1850.2	23.33	24.50	1.309	0.06	0.019	0.025



FCC SAR Test Report

Report No. : FA2D0913

	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	810	1909.8	23.33	24.50	1.309	-0.12	0.018	0.024
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 0	DSI 2	661	1880	23.39	24.50	1.291	0.02	0.011	0.014
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	661	1880	23.39	24.50	1.291	-0.13	0.007	0.009
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 0	DSI 2	661	1880	23.39	24.50	1.291	-0.11	0.005	0.006
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	661	1880	23.42	24.50	1.282	0.02	0.062	0.080
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	512	1850.2	23.36	24.50	1.300	0.09	0.059	0.077
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 1	DSI 2	810	1909.8	23.32	24.50	1.312	-0.19	0.057	0.075
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 1	DSI 2	661	1880	23.42	24.50	1.282	0.02	0.060	0.077
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 1	DSI 2	661	1880	23.42	24.50	1.282	-0.09	0.053	0.068
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 1	DSI 2	661	1880	23.42	24.50	1.282	0.12	0.057	0.073
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 2	DSI 2	661	1880	24.13	25.00	1.222	-0.02	0.523	0.639
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 2	DSI 2	512	1850.2	23.98	25.00	1.265	0.13	0.503	0.636
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Cheek	0mm	Ant 2	DSI 2	810	1909.8	24.00	25.00	1.259	-0.01	0.501	0.631
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Right Tilted	0mm	Ant 2	DSI 2	661	1880	24.13	25.00	1.222	-0.15	0.515	0.629
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Cheek	0mm	Ant 2	DSI 2	661	1880	24.13	25.00	1.222	-0.03	0.185	0.226
	GSM1900	-	-	-	-	GPRS (3 Tx slots)	Left Tilted	0mm	Ant 2	DSI 2	661	1880	24.13	25.00	1.222	0.06	0.164	0.200
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 3	DSI 2	661	1880	21.78	23.10	1.355	-0.04	0.569	0.771
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 3	DSI 2	661	1880	21.78	23.10	1.355	0.02	0.609	0.825
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 3	DSI 2	512	1850.2	21.66	23.10	1.393	-0.1	0.507	0.706
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 3	DSI 2	810	1909.8	21.72	23.10	1.374	0.05	0.571	0.785
18	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 3	DSI 2	661	1880	21.78	23.10	1.355	0.08	0.867	1.175
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	661	1880	20.15	21.80	1.462	-0.07	0.671	0.981
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 3	DSI 2	512	1850.2	21.66	23.10	1.393	-0.03	0.767	1.069
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 3	DSI 2	810	1909.8	21.72	23.10	1.374	0.09	0.814	1.118
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 3	DSI 2	661	1880	21.78	23.10	1.355	-0.05	0.715	0.969
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 3	DSI 2	512	1850.2	21.66	23.10	1.393	0.02	0.633	0.882
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 3	DSI 2	810	1909.8	21.72	23.10	1.374	0.19	0.656	0.901
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	9400	1880	20.68	22.00	1.355	0.01	0.077	0.104
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	9262	1852.4	20.62	22.00	1.374	0.08	0.062	0.085
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	9538	1907.6	20.57	22.00	1.390	0.11	0.064	0.089
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	9400	1880	20.68	22.00	1.355	0.02	0.065	0.088
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	9400	1880	20.68	22.00	1.355	0.07	0.043	0.058
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	9400	1880	20.68	22.00	1.355	0.15	0.052	0.070
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	9400	1880	21.57	23.00	1.390	-0.05	0.036	0.050
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	9400	1880	21.57	23.00	1.390	0.19	0.039	0.054
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	9400	1880	21.57	23.00	1.390	0.01	0.043	0.060
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	9262	1852.4	21.48	23.00	1.419	-0.03	0.036	0.051
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	9538	1907.6	21.51	23.00	1.409	-0.11	0.031	0.044
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	9400	1880	21.57	23.00	1.390	-0.14	0.041	0.057
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 2	9400	1880	19.18	20.10	1.236	-0.05	0.921	1.138
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 2	9262	1852.4	19.14	20.10	1.247	0.1	0.828	1.033
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 2	9538	1907.6	19.07	20.10	1.268	0.04	0.921	1.168
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 2	9400	1880	19.18	20.10	1.236	0.19	0.963	1.190
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 2	9262	1852.4	19.14	20.10	1.247	0.14	0.851	1.062
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 2	9538	1907.6	19.07	20.10	1.268	-0.02	0.972	1.232
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	9538	1907.6	18.17	19.20	1.268	0.18	0.770	0.976
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 2	9400	1880	19.18	20.10	1.236	-0.07	0.325	0.402
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 2	9400	1880	19.18	20.10	1.236	-0.1	0.335	0.414
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 2	9400	1880	17.99	19.90	1.552	-0.08	0.531	0.824
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 2	9262	1852.4	17.91	19.90	1.581	0.03	0.496	0.784
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 2	9538	1907.6	17.93	19.90	1.574	-0.13	0.517	0.814
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 2	9400	1880	17.99	19.90	1.552	0.08	0.557	0.865
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 2	9262	1852.4	17.91	19.90	1.581	-0.05	0.521	0.824
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 2	9538	1907.6	17.93	19.90	1.574	-0.04	0.540	0.850
19	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2	9400	1880	17.99	19.90	1.552	0.01	0.808	1.254
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	9400	1880	17.04	18.80	1.500	0.03	0.663	0.994
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2	9262	1852.4	17.91	19.90	1.581	0.03	0.738	1.167



FCC SAR Test Report

Report No. : FA2D0913

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 2	9538	1907.6	17.93	19.90	1.574	-0.18	0.780	1.228
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 2	9400	1880	17.99	19.90	1.552	0.17	0.676	1.049
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 2	9262	1852.4	17.91	19.90	1.581	0.01	0.620	0.980
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 2	9538	1907.6	17.93	19.90	1.574	0.05	0.648	1.020
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26340	1880	23.21	24.00	1.199	0.02	0.104	0.125
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26140	1860	23.16	24.00	1.213	-0.15	0.091	0.110
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26590	1905	23.18	24.00	1.208	-0.02	0.098	0.118
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	26340	1880	23.15	24.00	1.216	-0.15	0.086	0.105
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	26340	1880	23.21	24.00	1.199	0.06	0.045	0.054
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	26340	1880	23.15	24.00	1.216	0.03	0.001	0.001
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	23.21	24.00	1.199	0.04	0.061	0.073
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	26340	1880	23.15	24.00	1.216	0.18	0.050	0.061
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	26340	1880	23.21	24.00	1.199	0.04	0.057	0.068
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	26340	1880	23.15	24.00	1.216	0.12	0.047	0.057
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	21.11	22.00	1.227	0.05	0.011	0.014
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	21.06	22.00	1.242	0.1	0.013	0.016
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	26340	1880	21.11	22.00	1.227	-0.12	0.018	0.022
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	26340	1880	21.06	22.00	1.242	-0.06	0.015	0.019
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	26340	1880	21.11	22.00	1.227	0.01	0.028	0.034
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	26140	1860	21.00	22.00	1.259	-0.18	0.017	0.021
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	26590	1905	21.06	22.00	1.242	0.11	0.015	0.019
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	26340	1880	21.06	22.00	1.242	0.01	0.021	0.026
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	26340	1880	21.11	22.00	1.227	0.17	0.026	0.032
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	26340	1880	21.06	22.00	1.242	0.15	0.019	0.024
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	26340	1880	19.90	21.00	1.288	0.09	0.872	1.123
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	26140	1860	19.84	21.00	1.306	0.11	0.791	1.033
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	26590	1905	19.78	21.00	1.324	-0.04	0.931	1.233
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	26590	1905	18.80	20.00	1.318	0.04	0.754	0.994
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	26340	1880	19.79	21.00	1.321	0.07	0.722	0.954
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	26140	1860	19.65	21.00	1.365	0.08	0.682	0.931
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	26590	1905	19.63	21.00	1.371	-0.14	0.750	1.028
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 2	26340	1880	19.82	21.00	1.312	-0.11	0.716	0.940
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	26340	1880	19.90	21.00	1.288	-0.17	0.862	1.110
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	26140	1860	19.84	21.00	1.306	-0.08	0.782	1.021
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	26590	1905	19.78	21.00	1.324	0.04	0.884	1.171
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	26340	1880	19.79	21.00	1.321	0.18	0.719	0.950
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	26140	1860	19.65	21.00	1.365	-0.19	0.657	0.897
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	26590	1905	19.63	21.00	1.371	-0.05	0.744	1.020
	LTE Band 25	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 2	DSI 2	26340	1880	19.82	21.00	1.312	0.17	0.710	0.932
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	26340	1880	19.90	21.00	1.288	0.01	0.282	0.363
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 2	26340	1880	19.79	21.00	1.321	0.01	0.242	0.320
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	26340	1880	19.90	21.00	1.288	-0.08	0.314	0.405
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 2	26340	1880	19.79	21.00	1.321	0.11	0.262	0.346
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	26340	1880	18.29	19.60	1.352	0.14	0.622	0.841
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	26140	1860	18.21	19.60	1.377	-0.11	0.594	0.818
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	26590	1905	18.27	19.60	1.358	0.06	0.300	0.407
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 2	26340	1880	18.24	19.60	1.368	0.06	0.514	0.703
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	DSI 2	26340	1880	18.15	19.60	1.396	0.03	0.502	0.701
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	26340	1880	18.29	19.60	1.352	-0.18	0.662	0.895
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	26140	1860	18.21	19.60	1.377	0.13	0.628	0.865
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	26590	1905	18.27	19.60	1.358	-0.03	0.649	0.882
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	26340	1880	18.24	19.60	1.368	0.06	0.560	0.766
	LTE Band 25	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 3	DSI 2	26340	1880	18.15	19.60	1.396	0.08	0.532	0.743
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	26340	1880	18.29	19.60	1.352	-0.08	0.902	1.220
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	26140	1860	18.21	19.60	1.377	0.12	0.825	1.136
20	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	26590	1905	18.27	19.60	1.358	0.02	0.914	1.241
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	26590	1905	17.30	18.80	1.413	0.08	0.693	0.979



	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	26340	1880	18.24	19.60	1.368	-0.04	0.745	1.019
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	26140	1860	18.04	19.60	1.432	-0.15	0.674	0.965
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	26590	1905	18.18	19.60	1.387	0.05	0.720	0.998
	LTE Band 25	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	DSI 2	26340	1880	18.15	19.60	1.396	-0.12	0.736	1.028
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	26340	1880	18.29	19.60	1.352	0.04	0.760	1.028
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	26140	1860	18.21	19.60	1.377	0.03	0.652	0.898
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	26590	1905	18.27	19.60	1.358	0.08	0.720	0.978
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	26340	1880	18.24	19.60	1.368	0.06	0.612	0.837
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	26140	1860	18.04	19.60	1.432	0.1	0.566	0.811
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	26590	1905	18.18	19.60	1.387	0.09	0.585	0.811
	LTE Band 25	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 3	DSI 2	26340	1880	18.15	19.60	1.396	0.11	0.594	0.829
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	376500	1882.5	23.25	24.00	1.189	0.03	0.087	0.103
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	376500	1882.5	23.16	24.00	1.213	0.01	0.100	0.121
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	374000	1870	23.02	24.00	1.253	0.13	0.098	0.123
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	379000	1895	22.97	24.00	1.288	0.05	0.095	0.120
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	376500	1882.5	23.25	24.00	1.189	-0.14	0.042	0.050
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	376500	1882.5	23.16	24.00	1.213	-0.05	0.047	0.057
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	376500	1882.5	23.25	24.00	1.189	-0.15	0.051	0.061
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	376500	1882.5	23.16	24.00	1.213	0.06	0.054	0.066
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	376500	1882.5	23.25	24.00	1.189	0.05	0.051	0.061
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	376500	1882.5	23.16	24.00	1.213	0.04	0.057	0.069
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376500	1882.5	21.52	23.00	1.406	0.09	0.017	0.024
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	374000	1870	21.49	23.00	1.416	0.11	0.015	0.021
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	379000	1895	21.45	23.00	1.429	-0.03	0.012	0.017
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376500	1882.5	21.49	23.00	1.416	0.05	0.001	0.001
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	376500	1882.5	21.52	23.00	1.406	0.03	0.001	0.001
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	376500	1882.5	21.49	23.00	1.416	0.01	0.001	0.001
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	376500	1882.5	21.52	23.00	1.406	0.07	0.001	0.001
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	376500	1882.5	21.49	23.00	1.416	0.09	0.001	0.001
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	376500	1882.5	21.52	23.00	1.406	0.03	0.001	0.001
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	376500	1882.5	21.49	23.00	1.416	0.04	0.001	0.001
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	376500	1882.5	18.68	19.70	1.265	0.1	0.879	1.112
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	374000	1870	18.57	19.70	1.297	0.07	0.746	0.968
21	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	379000	1895	18.66	19.70	1.271	-0.02	0.983	1.249
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	379000	1895	17.53	18.50	1.250	-0.08	0.787	0.984
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	376500	1882.5	18.65	19.70	1.274	0.04	0.912	1.161
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	374000	1870	18.60	19.70	1.288	-0.12	0.968	1.247
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	379000	1895	18.58	19.70	1.294	0.05	0.912	1.180
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	376500	1882.5	18.57	19.70	1.297	0.11	0.912	1.183
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	376500	1882.5	18.68	19.70	1.265	-0.16	0.940	1.189
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	374000	1870	18.57	19.70	1.297	0.06	0.708	0.918
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	379000	1895	18.66	19.70	1.271	0.02	0.974	1.238
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	376500	1882.5	18.65	19.70	1.274	0.03	0.921	1.173
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	374000	1870	18.60	19.70	1.288	-0.1	0.845	1.089
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	379000	1895	18.58	19.70	1.294	0.09	0.954	1.235
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	376500	1882.5	18.57	19.70	1.297	0.06	0.926	1.201
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	376500	1882.5	18.68	19.70	1.265	0.05	0.305	0.386
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	376500	1882.5	18.65	19.70	1.274	0.09	0.302	0.385
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	376500	1882.5	18.68	19.70	1.265	0.04	0.300	0.379
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	376500	1882.5	18.65	19.70	1.274	0.17	0.314	0.400
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	376500	1882.5	18.69	19.80	1.291	0.08	0.607	0.784
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	376500	1882.5	18.62	19.80	1.312	0.08	0.607	0.797
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	374000	1870	18.47	19.80	1.358	0.08	0.583	0.792
	FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	379000	1895	18.44	19.80	1.368	-0.17	0.603	0.825
	FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	376500	1882.5	18.57	19.80	1.327	0.17	0.603	0.800
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	376500	1882.5	18.69	19.80	1.291	0.04	0.635	0.820
	FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	374000	1870	18.52	19.80	1.343	0.15	0.595	0.799



FCC SAR Test Report

Report No. : FA2D0913

FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	379000	1895	18.57	19.80	1.327	0.16	0.603	0.800	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	376500	1882.5	18.62	19.80	1.312	-0.03	0.623	0.818	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	374000	1870	18.47	19.80	1.358	0.01	0.615	0.835	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	379000	1895	18.44	19.80	1.368	0.11	0.615	0.841	
FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	376500	1882.5	18.57	19.80	1.327	0.08	0.659	0.875	
FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	376500	1882.5	18.69	19.80	1.291	0.09	0.870	1.123	
FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	374000	1870	18.52	19.80	1.343	0.16	0.671	0.901	
FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	379000	1895	18.57	19.80	1.327	-0.09	0.930	1.234	
FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	379000	1895	17.13	18.20	1.279	0.1	0.763	0.976	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	376500	1882.5	18.62	19.80	1.312	0.01	0.882	1.157	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	374000	1870	18.47	19.80	1.358	0.07	0.870	1.182	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	379000	1895	18.44	19.80	1.368	-0.09	0.878	1.201	
FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	376500	1882.5	18.57	19.80	1.327	-0.02	0.882	1.171	
FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	376500	1882.5	18.69	19.80	1.291	0.04	0.726	0.937	
FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	374000	1870	18.52	19.80	1.343	-0.03	0.575	0.772	
FR1 n25	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	379000	1895	18.57	19.80	1.327	-0.02	0.794	1.054	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	376500	1882.5	18.62	19.80	1.312	0.02	0.750	0.984	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	374000	1870	18.47	19.80	1.358	-0.06	0.738	1.002	
FR1 n25	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	379000	1895	18.44	19.80	1.368	0.04	0.730	0.998	
FR1 n25	40M	QPSK	216	0	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	376500	1882.5	18.57	19.80	1.327	0.02	0.754	1.001	
2300MHz																		
LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	27710	2310	23.26	24.00	1.186	0.11	0.001	0.001	
LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	27710	2310	22.46	23.00	1.132	0.07	0.001	0.001	
LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	27710	2310	23.26	24.00	1.186	-0.18	0.001	0.001	
LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	27710	2310	22.46	23.00	1.132	0.02	0.001	0.001	
LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	27710	2310	23.26	24.00	1.186	0.06	0.001	0.001	
LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	27710	2310	22.46	23.00	1.132	0.08	0.001	0.001	
LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	27710	2310	23.26	24.00	1.186	-0.12	0.038	0.045	
LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	27710	2310	22.46	23.00	1.132	0.09	0.001	0.001	
LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	27710	2310	21.94	23.00	1.276	0.05	0.001	0.001	
LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 2	27710	2310	21.91	23.00	1.285	0.12	0.001	0.001	
LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	27710	2310	21.94	23.00	1.276	0.07	0.001	0.001	
LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 2	27710	2310	21.91	23.00	1.285	0.06	0.001	0.001	
LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	27710	2310	21.94	23.00	1.276	0.06	0.001	0.001	
LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 2	27710	2310	21.91	23.00	1.285	-0.13	0.001	0.001	
LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	27710	2310	21.94	23.00	1.276	0.04	0.001	0.001	
LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 2	27710	2310	21.91	23.00	1.285	0.01	0.045	0.058	
22	LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	27710	2310	13.98	15.10	1.294	-0.05	0.971	1.257
LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	27710	2310	12.99	14.10	1.291	0.04	0.756	0.976	
LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 2	DSI 2	27710	2310	13.94	15.10	1.306	0.12	0.789	1.031	
LTE Band 30	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	27710	2310	13.83	15.10	1.340	0.14	0.785	1.052	
LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	27710	2310	13.98	15.10	1.294	0.08	0.961	1.244	
LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 2	DSI 2	27710	2310	13.94	15.10	1.306	0.17	0.808	1.055	
LTE Band 30	10M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	27710	2310	13.83	15.10	1.340	0.05	0.804	1.077	
LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	27710	2310	13.98	15.10	1.294	-0.18	0.409	0.529	
LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 2	DSI 2	27710	2310	13.94	15.10	1.306	0.01	0.331	0.432	
LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	27710	2310	13.98	15.10	1.294	-0.14	0.449	0.581	
LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 2	DSI 2	27710	2310	13.94	15.10	1.306	-0.14	0.364	0.475	
LTE Band 30	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	27710	2310	18.56	20.10	1.426	0.15	0.375	0.535	
LTE Band 30	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 3	DSI 2	27710	2310	18.44	20.10	1.466	0.03	0.328	0.481	
LTE Band 30	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	27710	2310	18.56	20.10	1.426	0.04	0.330	0.470	
LTE Band 30	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 3	DSI 2	27710	2310	18.44	20.10	1.466	0.15	0.253	0.371	
LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	27710	2310	18.56	20.10	1.426	0.04	0.881	1.256	
LTE Band 30	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	27710	2310	17.59	19.30	1.483	0.09	0.652	0.967	
LTE Band 30	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 3	DSI 2	27710	2310	18.44	20.10	1.466	0.06	0.709	1.039	
LTE Band 30	10M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	27710	2310	18.43	20.10	1.469	-0.15	0.700	1.028	
LTE Band 30	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	27710	2310	18.56	20.10	1.426	0.09	0.500	0.713	



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 30	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 3	DSI 2	27710	2310	18.44	20.10	1.466	-0.05	0.348	0.510
	LTE Band 30	10M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	27710	2310	18.43	20.10	1.469	0.06	0.384	0.564
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	462000	2310	23.03	24.00	1.250	0.03	0.001	0.001
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	462000	2310	22.93	24.00	1.279	0.17	0.001	0.001
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	462000	2310	23.03	24.00	1.250	-0.02	0.001	0.001
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	462000	2310	22.93	24.00	1.279	-0.18	0.001	0.001
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	462000	2310	23.03	24.00	1.250	-0.18	0.001	0.001
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	462000	2310	22.93	24.00	1.279	0.13	0.001	0.001
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	462000	2310	23.03	24.00	1.250	0.05	0.012	0.015
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	462000	2310	22.93	24.00	1.279	0.18	0.001	0.001
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	462000	2310	21.85	23.00	1.303	0.06	0.001	0.001
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	462000	2310	21.81	23.00	1.315	0.14	0.001	0.001
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	462000	2310	21.85	23.00	1.303	0.06	0.001	0.001
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	462000	2310	21.81	23.00	1.315	0.09	0.001	0.001
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	462000	2310	21.85	23.00	1.303	-0.13	0.026	0.034
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	462000	2310	21.81	23.00	1.315	0.02	0.033	0.043
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	462000	2310	21.85	23.00	1.303	0.06	0.001	0.001
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	462000	2310	21.81	23.00	1.315	-0.01	0.001	0.001
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	462000	2310	14.50	15.60	1.288	0.14	0.707	0.911
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	462000	2310	14.47	15.60	1.297	0.02	0.858	1.113
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	462000	2310	14.39	15.60	1.321	-0.15	0.712	0.941
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	462000	2310	14.50	15.60	1.288	0.14	0.807	1.040
23	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	462000	2310	14.47	15.60	1.297	-0.07	0.968	1.256
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	462000	2310	13.32	14.50	1.312	0.1	0.750	0.984
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	462000	2310	14.39	15.60	1.321	0.04	0.737	0.974
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	462000	2310	14.50	15.60	1.288	0.17	0.252	0.325
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	462000	2310	14.47	15.60	1.297	-0.04	0.330	0.428
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	462000	2310	14.50	15.60	1.288	0.08	0.287	0.370
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	462000	2310	14.47	15.60	1.297	-0.08	0.370	0.480
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	462000	2310	18.89	20.00	1.291	0.15	0.455	0.588
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	462000	2310	18.71	20.00	1.346	-0.13	0.454	0.611
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	462000	2310	18.89	20.00	1.291	0.13	0.413	0.533
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	462000	2310	18.71	20.00	1.346	0.05	0.407	0.548
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	462000	2310	18.89	20.00	1.291	0.08	0.960	1.240
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	462000	2310	17.25	18.30	1.274	0.04	0.780	0.993
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	462000	2310	18.71	20.00	1.346	-0.02	0.912	1.227
	FR1 n30	10M	QPSK	50	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	462000	2310	18.70	20.00	1.349	-0.08	0.702	0.947
	FR1 n30	10M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	462000	2310	18.89	20.00	1.291	0.16	0.615	0.794
	FR1 n30	10M	QPSK	25	14	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	462000	2310	18.71	20.00	1.346	-0.18	0.575	0.774



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)	Reported 1g SAR (W/kg)
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	21100	2535	21.12	22.00	1.225	-	-	0.03	0.047	0.058
	LTE Band 7C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 0	DSI 2	21100+21298	2535+2554.8	21.09	22.00	1.233	-	-	-0.06	0.041	0.051
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	20850	2510	20.93	22.00	1.279	-	-	0.05	0.041	0.052
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	21350	2560	21.03	22.00	1.250	-	-	0.03	0.038	0.048
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	21100	2535	21.04	22.00	1.247	-	-	-0.1	0.043	0.054
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	21100	2535	21.12	22.00	1.225	-	-	-0.01	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	21100	2535	21.04	22.00	1.247	-	-	0.05	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	21100	2535	21.12	22.00	1.225	-	-	0.12	0.036	0.044
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	21100	2535	21.04	22.00	1.247	-	-	0.06	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	21100	2535	21.12	22.00	1.225	-	-	0.02	0.045	0.055
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	21100	2535	21.04	22.00	1.247	-	-	0.05	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	21.70	23.00	1.349	-	-	0.01	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	21.68	23.00	1.355	-	-	0.03	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	21.70	23.00	1.349	-	-	0.1	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	21.68	23.00	1.355	-	-	-0.03	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	21.70	23.00	1.349	-	-	0.01	0.040	0.054
	LTE Band 7C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 1	DSI 2	21100+21298	2535+2554.8	20.48	22.00	1.419	-	-	0.05	0.035	0.050
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	20850	2510	21.62	23.00	1.374	-	-	-0.02	0.033	0.045
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	21350	2560	21.65	23.00	1.365	-	-	-0.09	0.036	0.049
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	21.68	23.00	1.355	-	-	0.07	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	21.70	23.00	1.349	-	-	0.07	0.001	0.001
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	21.68	23.00	1.355	-	-	-0.17	0.001	0.001
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	21100	2535	13.31	14.40	1.285	-	-	0.02	0.855	1.099
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	20850	2510	13.22	14.40	1.312	-	-	0.06	0.943	1.237
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	21350	2560	13.30	14.40	1.288	-	-	-0.06	0.815	1.050
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	21100	2535	13.24	14.40	1.306	-	-	0.05	0.722	0.943
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	20850	2510	13.10	14.40	1.349	-	-	0.11	0.769	1.037
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	21350	2560	13.14	14.40	1.337	-	-	0.08	0.652	0.871
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 2	21100	2535	13.15	14.40	1.334	-	-	-0.04	0.690	0.920
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	21100	2535	13.31	14.40	1.285	-	-	0.03	0.866	1.113
24	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	20850	2510	13.22	14.40	1.312	-	-	-0.02	0.956	1.254
	LTE Band 7C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 2	DSI 2	20850+21048	2510+2529.8	13.03	14.40	1.371	-	-	0.13	0.869	1.191
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	20850	2510	12.13	13.20	1.279	-	-	-0.1	0.769	0.984
	LTE Band 7C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	20850+21048	2510+2529.8	12.06	13.20	1.300	-	-	0.01	0.725	0.943
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	21350	2560	13.30	14.40	1.288	-	-	-0.17	0.785	1.011
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	21100	2535	13.24	14.40	1.306	-	-	0.06	0.728	0.951
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	20850	2510	13.10	14.40	1.349	-	-	0.09	0.772	1.041
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	21350	2560	13.14	14.40	1.337	-	-	-0.06	0.658	0.879
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 2	DSI 2	21100	2535	13.15	14.40	1.334	-	-	0.05	0.712	0.949
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	21100	2535	13.31	14.40	1.285	-	-	0.17	0.343	0.441
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 2	21100	2535	13.24	14.40	1.306	-	-	-0.03	0.275	0.359
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	21100	2535	13.31	14.40	1.285	-	-	0.05	0.367	0.472
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 2	21100	2535	13.24	14.40	1.306	-	-	-0.16	0.299	0.391
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	21100	2535	18.31	19.60	1.346	-	-	0.17	0.376	0.506
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 2	21100	2535	18.24	19.60	1.368	-	-	0.01	0.305	0.417
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	21100	2535	18.31	19.60	1.346	-	-	-0.11	0.267	0.359
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	21100	2535	18.24	19.60	1.368	-	-	0.13	0.229	0.313
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	21100	2535	18.31	19.60	1.346	-	-	0.06	0.834	1.122
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	20850	2510	18.26	19.60	1.361	-	-	0.09	0.916	1.247
	LTE Band 7C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 3	DSI 2	20850+21048	2510+2529.8	18.06	19.60	1.426	-	-	-0.03	0.818	1.166



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	20850	2510	17.21	18.40	1.315	-	-	0.07	0.742	0.976
	LTE Band 7C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	20850+21048	2510+2529.8	17.01	18.40	1.377	-	-	0.08	0.704	0.970
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	21350	2560	18.26	19.60	1.361	-	-	0.09	0.846	1.152
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	21100	2535	18.24	19.60	1.368	-	-	0.17	0.716	0.979
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	20850	2510	18.05	19.60	1.429	-	-	0.08	0.763	1.090
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	21350	2560	18.11	19.60	1.409	-	-	-0.05	0.675	0.951
	LTE Band 7	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	DSI 2	21100	2535	18.14	19.60	1.400	-	-	-0.08	0.693	0.970
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	21100	2535	18.31	19.60	1.346	-	-	-0.03	0.549	0.739
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	21100	2535	18.24	19.60	1.368	-	-	0.11	0.443	0.606
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	40620	2593	22.66	24.00	1.361	62.9	1.006	0.09	0.057	0.078
	LTE Band 41	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 0	DSI 2	40620+40818	2593+2612.8	22.63	24.00	1.371	62.9	1.006	0.04	0.052	0.072
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 2	40620	2593	22.34	23.50	1.306	62.9	1.006	0.11	0.048	0.063
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	40620	2593	22.66	24.00	1.361	62.9	1.006	0.02	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 2	40620	2593	22.34	23.50	1.306	62.9	1.006	-0.16	0.001	0.001
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	40620	2593	22.66	24.00	1.361	62.9	1.006	0.01	0.046	0.063
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 2	40620	2593	22.34	23.50	1.306	62.9	1.006	-0.14	0.055	0.072
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	40620	2593	22.66	24.00	1.361	62.9	1.006	0.07	0.001	0.001
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 2	40620	2593	22.34	23.50	1.306	62.9	1.006	0.13	0.045	0.059
	LTE Band 41_HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	40620	2593	25.62	26.00	1.091	42.9	1.009	0.05	0.071	0.078
	LTE Band 41C_HPUE	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 0	DSI 2	40620+40818	2593+2612.8	25.54	26.00	1.112	42.9	1.009	0.03	0.062	0.070
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	23.75	24.00	1.059	62.9	1.006	0.12	0.012	0.013
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	22.72	23.00	1.067	62.9	1.006	0.07	0.009	0.010
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	23.75	24.00	1.059	62.9	1.006	0.07	0.005	0.005
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	22.72	23.00	1.067	62.9	1.006	-0.16	0.007	0.008
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	23.75	24.00	1.059	62.9	1.006	0.09	0.046	0.049
	LTE Band 41C	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 1	DSI 2	40620+40818	2593+2612.8	23.38	24.00	1.153	62.9	1.006	0.01	0.034	0.039
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	22.72	23.00	1.067	62.9	1.006	-0.09	0.035	0.038
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	23.75	24.00	1.059	62.9	1.006	0.08	0.026	0.028
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	22.72	23.00	1.067	62.9	1.006	-0.12	0.021	0.023
	LTE Band 41_HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	25.64	27.00	1.368	42.9	1.009	0.04	0.049	0.068
	LTE Band 41C_HPUE	20M	QPSK	1	99	-	Left Cheek	0mm	Ant 1	DSI 2	40620+40818	2593+2612.8	25.32	27.00	1.472	42.9	1.009	0.05	0.033	0.049
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	40620	2593	17.98	19.20	1.324	62.9	1.006	0.16	0.716	0.954
25	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	39750	2506	17.78	19.20	1.387	62.9	1.006	-0.08	0.900	1.256
	LTE Band 41C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 2	DSI 2	39750+39948	2506+2525.8	17.58	19.20	1.452	62.9	1.006	0.09	0.802	1.172
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	39750	2506	16.70	18.10	1.380	62.9	1.006	0.04	0.715	0.993
	LTE Band 41C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	39750+39948	2506+2525.8	16.51	18.10	1.442	62.9	1.006	-0.11	0.677	0.982
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	40185	2549.5	17.81	19.20	1.377	62.9	1.006	0.06	0.774	1.072
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	41055	2636.5	17.76	19.20	1.393	62.9	1.006	0.13	0.657	0.921
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	41490	2680	17.70	19.20	1.413	62.9	1.006	-0.14	0.688	0.978
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	40620	2593	17.80	19.20	1.380	62.9	1.006	0.01	0.546	0.758
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	39750	2506	17.68	19.20	1.419	62.9	1.006	0.05	0.655	0.935
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	40185	2549.5	17.63	19.20	1.435	62.9	1.006	0.04	0.649	0.937
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	41055	2636.5	17.77	19.20	1.390	62.9	1.006	0.04	0.537	0.751
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 2	41490	2680	17.68	19.20	1.419	62.9	1.006	0.02	0.518	0.739
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 2	40620	2593	17.66	19.20	1.426	62.9	1.006	0.09	0.562	0.806
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	40620	2593	17.98	19.20	1.324	62.9	1.006	0.03	0.761	1.014
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	39750	2506	17.78	19.20	1.387	62.9	1.006	-0.09	0.867	1.210
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	40185	2549.5	17.81	19.20	1.377	62.9	1.006	0.19	0.883	1.223
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	41055	2636.5	17.76	19.20	1.393	62.9	1.006	0.05	0.719	1.008
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	41490	2680	17.70	19.20	1.413	62.9	1.006	-0.02	0.749	1.064
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	40620	2593	17.80	19.20	1.380	62.9	1.006	0.14	0.599	0.832
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	39750	2506	17.68	19.20	1.419	62.9	1.006	0.03	0.733	1.046
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	40185	2549.5	17.63	19.20	1.435	62.9	1.006	0.08	0.657	0.949
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	41055	2636.5	17.77	19.20	1.390	62.9	1.006	-0.07	0.557	0.779



FCC SAR Test Report

Report No. : FA2D0913

LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	41490	2680	17.68	19.20	1.419	62.9	1.006	0.05	0.574	0.819
LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 2	DSI 2	40620	2593	17.66	19.20	1.426	62.9	1.006	0.03	0.562	0.806
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	40620	2593	17.98	19.20	1.324	62.9	1.006	-0.11	0.247	0.329
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 2	40620	2593	17.80	19.20	1.380	62.9	1.006	0.19	0.197	0.274
LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	40620	2593	17.98	19.20	1.324	62.9	1.006	-0.14	0.284	0.378
LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 2	40620	2593	17.80	19.20	1.380	62.9	1.006	0.09	0.218	0.303
LTE Band 41_HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2	39750	2506	19.52	20.80	1.343	42.9	1.009	-0.09	0.866	1.173
LTE Band 41C_HPUE	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 2	DSI 2	39750+39948	2506+2525.8	19.48	20.80	1.355	42.9	1.009	0.08	0.814	1.113
LTE Band 41_HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 2 Simultaneous	39750	2506	18.26	19.70	1.393	42.9	1.009	0.09	0.708	0.995
LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	40620	2593	19.71	21.10	1.377	62.9	1.006	0.16	0.323	0.448
LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 2	40620	2593	19.65	21.10	1.396	62.9	1.006	0.11	0.254	0.357
LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	40620	2593	19.71	21.10	1.377	62.9	1.006	0.08	0.279	0.387
LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	40620	2593	19.65	21.10	1.396	62.9	1.006	0.15	0.224	0.315
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	40620	2593	19.71	21.10	1.377	62.9	1.006	-0.18	0.832	1.153
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	39750	2506	19.45	21.10	1.462	62.9	1.006	0.08	0.800	1.177
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	39790	2510	19.37	21.10	1.489	62.9	1.006	-0.11	0.768	1.151
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	40185	2549.5	19.66	21.10	1.393	62.9	1.006	0.1	0.763	1.069
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	41055	2636.5	19.62	21.10	1.406	62.9	1.006	0.12	0.809	1.144
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	41490	2680	19.61	21.10	1.409	62.9	1.006	0.06	0.886	1.256
LTE Band 41C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	41490+41292	2680+2660.2	19.28	21.10	1.521	62.9	1.006	0.11	0.721	1.103
LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	41490	2680	18.55	20.00	1.396	62.9	1.006	0.01	0.712	1.000
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	40620	2593	19.65	21.10	1.396	62.9	1.006	0.09	0.654	0.919
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	39750	2506	19.52	21.10	1.439	62.9	1.006	0.15	0.649	0.939
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	40185	2549.5	19.53	21.10	1.435	62.9	1.006	0.06	0.617	0.891
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	41055	2636.5	19.53	21.10	1.435	62.9	1.006	-0.1	0.658	0.950
LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	41490	2680	19.47	21.10	1.455	62.9	1.006	-0.12	0.709	1.038
LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	DSI 2	40620	2593	19.61	21.10	1.409	62.9	1.006	0.06	0.658	0.933
LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	40620	2593	19.71	21.10	1.377	62.9	1.006	0.12	0.576	0.798
LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	39750	2506	19.45	21.10	1.462	62.9	1.006	0.08	0.530	0.780
LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	40185	2549.5	19.66	21.10	1.393	62.9	1.006	-0.11	0.553	0.775
LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	41055	2636.5	19.62	21.10	1.406	62.9	1.006	0.04	0.613	0.867
LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	41490	2680	19.61	21.10	1.409	62.9	1.006	0.03	0.672	0.953
LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	40620	2593	19.65	21.10	1.396	62.9	1.006	0.04	0.462	0.649
LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	39750	2506	19.52	21.10	1.439	62.9	1.006	0.02	0.428	0.620
LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	40185	2549.5	19.53	21.10	1.435	62.9	1.006	-0.11	0.439	0.634
LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	41055	2636.5	19.53	21.10	1.435	62.9	1.006	0.14	0.489	0.706
LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	41490	2680	19.47	21.10	1.455	62.9	1.006	-0.17	0.535	0.783
LTE Band 41	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 3	DSI 2	40620	2593	19.61	21.10	1.409	62.9	1.006	0.04	0.466	0.661
LTE Band 41_HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	41490	2680	21.20	22.70	1.413	42.9	1.009	0.06	0.880	1.254
LTE Band 41C_HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	41490+41292	2680+2660.2	20.82	22.70	1.542	42.9	1.009	-0.18	0.754	1.173
LTE Band 41_HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	41490	2680	20.00	21.60	1.445	42.9	1.009	0.01	0.682	0.995
FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	507000	2535	21.98	23.00	1.265	-	-	-0.09	0.001	0.001
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	507000	2535	21.95	23.00	1.274	-	-	0.09	0.030	0.038
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	504000	2520	21.78	23.00	1.324	-	-	0.05	0.026	0.034
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	510000	2550	21.83	23.00	1.309	-	-	-0.03	0.021	0.027
FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	507000	2535	21.98	23.00	1.265	-	-	-0.06	0.001	0.001
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	507000	2535	21.95	23.00	1.274	-	-	0.06	0.001	0.001
FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	507000	2535	21.98	23.00	1.265	-	-	0.15	0.001	0.001
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	507000	2535	21.95	23.00	1.274	-	-	-0.05	0.001	0.001
FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	507000	2535	21.98	23.00	1.265	-	-	-0.09	0.001	0.001
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	507000	2535	21.95	23.00	1.274	-	-	0.01	0.001	0.001
FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	22.26	23.00	1.186	-	-	-0.06	0.001	0.001
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	22.17	23.00	1.211	-	-	0.03	0.001	0.001
FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	22.26	23.00	1.186	-	-	0.18	0.001	0.001
FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	22.17	23.00	1.211	-	-	0.06	0.001	0.001



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	22.26	23.00	1.186	-	-	-0.03	0.001	0.001
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	22.17	23.00	1.211	-	-	0.09	0.001	0.001
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	22.26	23.00	1.186	-	-	0.05	0.001	0.001
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	22.17	23.00	1.211	-	-	-0.05	0.044	0.053
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	504000	2520	22.14	23.00	1.219	-	-	0.03	0.033	0.040
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	510000	2550	22.07	23.00	1.239	-	-	-0.03	0.036	0.045
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	507000	2535	12.57	13.70	1.297	-	-	-0.19	0.735	0.953
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	504000	2520	12.36	13.70	1.330	-	-	0.01	0.770	1.024
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	510000	2550	12.36	13.70	1.361	-	-	0.13	0.725	0.987
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	507000	2535	12.46	13.70	1.330	-	-	0.03	0.749	0.997
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	504000	2520	12.35	13.70	1.365	-	-	-0.07	0.778	1.062
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	510000	2550	12.43	13.70	1.340	-	-	0.06	0.840	1.125
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 2	DSI 2	507000	2535	12.42	13.70	1.343	-	-	-0.09	0.735	0.987
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	507000	2535	12.57	13.70	1.297	-	-	-0.05	0.803	1.042
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	504000	2520	12.36	13.70	1.361	-	-	0.03	0.812	1.105
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	510000	2550	12.36	13.70	1.361	-	-	0.06	0.775	1.055
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	507000	2535	12.46	13.70	1.330	-	-	-0.02	0.727	0.967
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	504000	2520	12.35	13.70	1.365	-	-	-0.17	0.804	1.097
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	510000	2550	12.43	13.70	1.340	-	-	-0.08	0.922	1.235
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	510000	2550	11.88	13.20	1.355	-	-	0.05	0.726	0.984
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 2	DSI 2	507000	2535	12.42	13.70	1.343	-	-	-0.14	0.796	1.069
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	507000	2535	12.57	13.70	1.297	-	-	0.04	0.304	0.394
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 2	DSI 2	507000	2535	12.46	13.70	1.330	-	-	0.1	0.275	0.366
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	507000	2535	12.57	13.70	1.297	-	-	0.09	0.302	0.392
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 2	DSI 2	507000	2535	12.46	13.70	1.330	-	-	0.05	0.263	0.350
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	507000	2535	18.15	18.90	1.189	-	-	0.06	0.385	0.458
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 3	DSI 2	507000	2535	17.96	18.90	1.242	-	-	-0.07	0.361	0.448
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	507000	2535	18.15	18.90	1.189	-	-	-0.17	0.282	0.335
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 3	DSI 2	507000	2535	17.96	18.90	1.242	-	-	-0.06	0.281	0.349
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	507000	2535	18.15	18.90	1.189	-	-	0.16	0.922	1.096
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	504000	2520	18.07	18.90	1.211	-	-	-0.1	0.888	1.075
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	510000	2550	18.03	18.90	1.222	-	-	-0.12	0.805	0.984
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	507000	2535	17.96	18.90	1.242	-	-	0.06	0.839	1.042
26	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	504000	2520	17.86	18.90	1.271	-	-	0.06	0.977	1.241
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2 Simultaneous	504000	2520	16.10	17.10	1.259	-	-	0.02	0.785	0.988
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	510000	2550	17.85	18.90	1.274	-	-	0.07	0.929	1.183
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Left Cheek	0mm	Ant 3	DSI 2	507000	2535	17.89	18.90	1.262	-	-	-0.14	0.829	1.046
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	507000	2535	18.15	18.90	1.189	-	-	0.02	0.523	0.622
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 3	DSI 2	507000	2535	17.96	18.90	1.242	-	-	-0.15	0.557	0.692
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	518598	2592.99	22.08	23.00	1.236	-	-	0.02	0.051	0.063
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	518598	2592.99	21.99	23.00	1.262	-	-	0.09	0.060	0.076
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	518598	2592.99	22.08	23.00	1.236	-	-	0.02	0.001	0.001
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	518598	2592.99	21.99	23.00	1.262	-	-	-0.08	0.001	0.001
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	518598	2592.99	22.08	23.00	1.236	-	-	0.04	0.001	0.001
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	518598	2592.99	21.99	23.00	1.262	-	-	0.08	0.001	0.001
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	518598	2592.99	22.08	23.00	1.236	-	-	0.07	0.001	0.001
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	518598	2592.99	21.99	23.00	1.262	-	-	-0.07	0.001	0.001
	FR1 n41_HPUE	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	518598	2592.99	24.90	26.00	1.288	50	1.000	-0.08	0.056	0.072
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.07	23.00	1.239	-	-	0.09	0.001	0.001
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.02	23.00	1.253	-	-	0.17	0.001	0.001
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.07	23.00	1.239	-	-	0.05	0.001	0.001
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.02	23.00	1.253	-	-	-0.07	0.001	0.001
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.07	23.00	1.239	-	-	-0.16	0.044	0.055
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.02	23.00	1.253	-	-	0.07	0.001	0.001
	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.07	23.00	1.239	-	-	0.03	0.001	0.001
	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.02	23.00	1.253	-	-	0.01	0.047	0.059



Table with 21 columns: Model, Power, Modulation, Channels, Frequency, Location, Distance, Antenna, Polarization, Frequency, Power, E1, E2, E3, E4, E5, E6, E7, E8, E9, E10. Includes rows for FR1 n41_HPUE, FR1 n41, and LTE Band 48.



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	55340	3560	18.56	19.80	1.330	62.9	1.006	-0.12	0.773	1.035
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	56150	3641	18.51	19.80	1.346	62.9	1.006	0.04	0.784	1.061
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2	56640	3690	18.45	19.80	1.365	62.9	1.006	-0.14	0.912	1.252
	LTE Band 48C	20M	QPSK	1	99	-	Right Tilted	0mm	Ant 2	DSI 2	56442+56244	3670.2+3650.4	18.22	19.80	1.439	62.9	1.006	0.05	0.812	1.175
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	56640	3690	17.38	18.70	1.355	62.9	1.006	-0.18	0.723	0.986
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	55830	3609	18.53	19.80	1.340	62.9	1.006	0.12	0.635	0.856
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	55340	3560	18.37	19.80	1.390	62.9	1.006	0.04	0.625	0.874
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	56150	3641	18.39	19.80	1.384	62.9	1.006	0.02	0.666	0.927
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 2	56640	3690	18.39	19.80	1.384	62.9	1.006	0.07	0.773	1.076
	LTE Band 48	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 2	DSI 2	55830	3609	18.45	19.80	1.365	62.9	1.006	0.03	0.640	0.879
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 2	55830	3609	18.59	19.80	1.321	62.9	1.006	0.16	0.310	0.412
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 2	55830	3609	18.53	19.80	1.340	62.9	1.006	0.05	0.262	0.353
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 2	55830	3609	18.59	19.80	1.321	62.9	1.006	-0.06	0.419	0.557
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 2	55830	3609	18.53	19.80	1.340	62.9	1.006	0.1	0.343	0.462
	LTE Band 48	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 2	55830	3609	17.95	19.10	1.303	62.9	1.006	0.07	0.227	0.298
	LTE Band 48	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 2	55830	3609	17.88	19.10	1.324	62.9	1.006	-0.07	0.194	0.258
	LTE Band 48	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 2	55830	3609	17.95	19.10	1.303	62.9	1.006	-0.06	0.158	0.207
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	55830	3609	17.88	19.10	1.324	62.9	1.006	-0.16	0.251	0.334
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	55340	3560	17.72	19.10	1.374	62.9	1.006	-0.09	0.210	0.290
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	56150	3641	17.73	19.10	1.371	62.9	1.006	0.03	0.269	0.371
	LTE Band 48	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 2	56640	3690	17.81	19.10	1.346	62.9	1.006	0.05	0.256	0.347
	LTE Band 48	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 3	DSI 2	55830	3609	17.87	19.10	1.327	62.9	1.006	-0.03	0.249	0.333
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	55830	3609	17.95	19.10	1.303	62.9	1.006	0.18	0.392	0.514
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	55340	3560	17.91	19.10	1.315	62.9	1.006	-0.09	0.576	0.762
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	56150	3641	17.84	19.10	1.337	62.9	1.006	0.01	0.751	1.010
	LTE Band 48	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 2	56640	3690	17.89	19.10	1.321	62.9	1.006	0.07	0.725	0.964
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	55830	3609	17.88	19.10	1.324	62.9	1.006	-0.16	0.582	0.775
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	55340	3560	17.72	19.10	1.374	62.9	1.006	-0.02	0.473	0.654
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	56150	3641	17.73	19.10	1.371	62.9	1.006	0.19	0.626	0.863
	LTE Band 48	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 2	56640	3690	17.81	19.10	1.346	62.9	1.006	0.1	0.589	0.797
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	DSI 2	55830	3609	17.87	19.10	1.327	62.9	1.006	0.16	0.597	0.797
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	55830	3609	17.95	19.10	1.303	62.9	1.006	0.06	0.811	1.063
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	55340	3560	17.91	19.10	1.315	62.9	1.006	0.02	0.720	0.953
28	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	56150	3641	17.84	19.10	1.337	62.9	1.006	-0.09	0.934	1.256
	LTE Band 48C	20M	QPSK	1	99	-	Left Tilted	0mm	Ant 3	DSI 2	56442+56244	3670.2+3650.4	17.59	19.10	1.416	62.9	1.006	-0.03	0.824	1.174
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2 Simultaneous	56150	3641	16.86	18.00	1.300	62.9	1.006	-0.11	0.751	0.982
	LTE Band 48	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 2	56640	3690	17.89	19.10	1.321	62.9	1.006	-0.03	0.884	1.175
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	55830	3609	17.88	19.10	1.324	62.9	1.006	0.02	0.746	0.994
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	55340	3560	17.72	19.10	1.374	62.9	1.006	-0.1	0.592	0.818
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	56150	3641	17.73	19.10	1.371	62.9	1.006	0.01	0.783	1.080
	LTE Band 48	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 2	56640	3690	17.81	19.10	1.346	62.9	1.006	0.02	0.759	1.028
	LTE Band 48	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 3	DSI 2	55830	3609	17.87	19.10	1.327	62.9	1.006	-0.02	0.749	1.000
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	641666	3624.99	21.09	22.00	1.233	-	-	0.04	0.001	0.001
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	641666	3624.99	21.05	22.00	1.245	-	-	0.1	0.037	0.046
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	641666	3624.99	21.09	22.00	1.233	-	-	0.12	0.001	0.001
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	641666	3624.99	21.05	22.00	1.245	-	-	0.06	0.001	0.001
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	641666	3624.99	21.09	22.00	1.233	-	-	0.05	0.001	0.001
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	641666	3624.99	21.05	22.00	1.245	-	-	-0.1	0.001	0.001
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	641666	3624.99	21.09	22.00	1.233	-	-	-0.03	0.001	0.001
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	641666	3624.99	21.05	22.00	1.245	-	-	0.05	0.001	0.001
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	641666	3624.99	23.73	24.00	1.064	-	-	0.09	0.036	0.038
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	641666	3624.99	23.70	24.00	1.072	-	-	0.05	0.031	0.033
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	641666	3624.99	23.73	24.00	1.064	-	-	-0.07	0.001	0.001
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	641666	3624.99	23.70	24.00	1.072	-	-	0.12	0.001	0.001
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	641666	3624.99	23.73	24.00	1.064	-	-	0.13	0.001	0.001



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	641666	3624.99	23.70	24.00	1.072	-	-	0.04	0.001	0.001
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	641666	3624.99	23.73	24.00	1.064	-	-	-0.02	0.001	0.001
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	641666	3624.99	23.70	24.00	1.072	-	-	-0.14	0.001	0.001
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	641666	3624.99	17.17	18.50	1.358	-	-	0.11	0.696	0.945
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	638000	3570	17.02	18.50	1.406	-	-	0.03	0.685	0.963
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	645332	3679.98	17.05	18.50	1.396	-	-	-0.11	0.741	1.035
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	641666	3624.99	17.07	18.50	1.390	-	-	0.07	0.666	0.926
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	638000	3570	16.96	18.50	1.426	-	-	0.04	0.647	0.922
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	645332	3679.98	16.98	18.50	1.419	-	-	0.05	0.726	1.030
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	641666	3624.99	16.92	18.50	1.439	-	-	0.08	0.520	0.748
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	641666	3624.99	17.17	18.50	1.358	-	-	0.06	0.834	1.133
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	638000	3570	17.02	18.50	1.406	-	-	-0.18	0.857	1.205
29	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	645332	3679.98	17.05	18.50	1.396	-	-	-0.01	0.900	1.257
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	645332	3679.98	16.19	17.30	1.291	-	-	-0.07	0.761	0.983
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	641666	3624.99	17.07	18.50	1.390	-	-	0.07	0.815	1.133
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	638000	3570	16.96	18.50	1.426	-	-	0.07	0.804	1.146
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	645332	3679.98	16.98	18.50	1.419	-	-	-0.17	0.882	1.252
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	641666	3624.99	16.92	18.50	1.439	-	-	0.02	0.636	0.915
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	641666	3624.99	17.17	18.50	1.358	-	-	0.07	0.354	0.481
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	638000	3570	17.02	18.50	1.406	-	-	-0.09	0.365	0.513
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	645332	3679.98	17.05	18.50	1.396	-	-	-0.03	0.378	0.528
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	641666	3624.99	17.07	18.50	1.390	-	-	-0.08	0.341	0.474
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	638000	3570	16.96	18.50	1.426	-	-	0.04	0.341	0.486
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	645332	3679.98	16.98	18.50	1.419	-	-	0.11	0.373	0.529
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	641666	3624.99	16.92	18.50	1.439	-	-	0.16	0.267	0.384
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	641666	3624.99	17.17	18.50	1.358	-	-	0.02	0.456	0.619
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	638000	3570	17.02	18.50	1.406	-	-	0.07	0.468	0.658
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	645332	3679.98	17.05	18.50	1.396	-	-	0.01	0.490	0.684
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	641666	3624.99	17.07	18.50	1.390	-	-	-0.17	0.441	0.613
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	638000	3570	16.96	18.50	1.426	-	-	0.16	0.453	0.646
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	645332	3679.98	16.98	18.50	1.419	-	-	0.02	0.494	0.701
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	641666	3624.99	16.92	18.50	1.439	-	-	-0.11	0.344	0.495
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	641666	3624.99	16.05	17.10	1.274	-	-	0.03	0.225	0.287
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	638000	3570	15.88	17.10	1.324	-	-	0.01	0.201	0.266
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	645332	3679.98	15.95	17.10	1.303	-	-	0.18	0.229	0.298
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	641666	3624.99	16.00	17.10	1.288	-	-	0.03	0.219	0.282
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	638000	3570	15.85	17.10	1.334	-	-	0.04	0.208	0.277
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	645332	3679.98	15.83	17.10	1.340	-	-	0.16	0.229	0.307
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	641666	3624.99	15.99	17.10	1.291	-	-	0.03	0.178	0.230
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	641666	3624.99	16.05	17.10	1.274	-	-	-0.05	0.289	0.368
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	638000	3570	15.88	17.10	1.324	-	-	-0.02	0.263	0.348
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	645332	3679.98	15.95	17.10	1.303	-	-	0.06	0.296	0.386
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	641666	3624.99	16.00	17.10	1.288	-	-	0.08	0.281	0.362
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	638000	3570	15.85	17.10	1.334	-	-	-0.02	0.261	0.348
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	645332	3679.98	15.83	17.10	1.340	-	-	0.03	0.303	0.406
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	641666	3624.99	15.99	17.10	1.291	-	-	0.18	0.220	0.284
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	641666	3624.99	16.05	17.10	1.274	-	-	0.14	0.719	0.916
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	638000	3570	15.88	17.10	1.324	-	-	-0.17	0.666	0.882
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	645332	3679.98	15.95	17.10	1.303	-	-	-0.18	0.735	0.958
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	641666	3624.99	16.00	17.10	1.288	-	-	0.04	0.717	0.924
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	638000	3570	15.85	17.10	1.334	-	-	0.06	0.644	0.859
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	645332	3679.98	15.83	17.10	1.340	-	-	0.1	0.714	0.957
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	641666	3624.99	15.99	17.10	1.291	-	-	0.12	0.555	0.717
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	641666	3624.99	16.05	17.10	1.274	-	-	0.12	0.859	1.094
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	638000	3570	15.88	17.10	1.324	-	-	0.18	0.818	1.083
	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	645332	3679.98	15.95	17.10	1.303	-	-	0.04	0.952	1.241



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n48	40M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2 Simultaneous	645332	3679.98	14.86	15.90	1.271	-	-	0.13	0.765	0.972
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	641666	3624.99	16.00	17.10	1.288	-	-	0.09	0.862	1.110
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	638000	3570	15.85	17.10	1.334	-	-	0.11	0.817	1.089
	FR1 n48	40M	QPSK	50	28	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	645332	3679.98	15.83	17.10	1.340	-	-	-0.19	0.916	1.227
	FR1 n48	40M	QPSK	100	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	641666	3624.99	15.99	17.10	1.291	-	-	0.02	0.722	0.932
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	656000	3840	23.06	24.00	1.242	-	-	-0.08	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	656000	3840	23.03	24.00	1.250	-	-	0.01	0.036	0.045
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	656000	3840	23.06	24.00	1.242	-	-	0.06	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	656000	3840	23.03	24.00	1.250	-	-	-0.1	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	656000	3840	23.06	24.00	1.242	-	-	-0.05	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	656000	3840	23.03	24.00	1.250	-	-	0.01	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	656000	3840	23.06	24.00	1.242	-	-	0.05	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	656000	3840	23.03	24.00	1.250	-	-	0.07	0.001	0.001
	FR1 n77 Part27O_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	656000	3840	26.10	27.00	1.230	50	1.000	-0.04	0.035	0.043
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	633334	3500.01	23.36	24.00	1.159	-	-	0.06	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	633334	3500.01	23.29	24.00	1.178	-	-	0.14	0.034	0.040
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	633334	3500.01	23.36	24.00	1.159	-	-	0.02	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 0	DSI 2	633334	3500.01	23.29	24.00	1.178	-	-	0.02	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	633334	3500.01	23.36	24.00	1.159	-	-	0.04	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 0	DSI 2	633334	3500.01	23.29	24.00	1.178	-	-	0.03	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	633334	3500.01	23.36	24.00	1.159	-	-	-0.07	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 0	DSI 2	633334	3500.01	23.29	24.00	1.178	-	-	0.05	0.001	0.001
	FR1 n77 Part27Q_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 0	DSI 2	633334	3500.01	26.35	27.00	1.161	50	1.000	0.04	0.034	0.039
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	656000	3840	22.95	24.00	1.274	-	-	-0.13	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	656000	3840	22.81	24.00	1.315	-	-	0.09	0.034	0.045
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	656000	3840	22.95	24.00	1.274	-	-	-0.05	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	656000	3840	22.81	24.00	1.315	-	-	0.08	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	656000	3840	22.95	24.00	1.274	-	-	0.13	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	656000	3840	22.81	24.00	1.315	-	-	0.02	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	656000	3840	22.95	24.00	1.274	-	-	0.03	0.001	0.001
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	656000	3840	22.81	24.00	1.315	-	-	-0.15	0.001	0.001
	FR1 n77 Part27O_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	656000	3840	25.88	27.00	1.294	50	1.000	-0.16	0.034	0.044
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	633334	3500.01	23.45	24.00	1.135	-	-	-0.11	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	633334	3500.01	23.22	24.00	1.197	-	-	-0.06	0.031	0.037
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	633334	3500.01	23.45	24.00	1.135	-	-	-0.19	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	633334	3500.01	23.22	24.00	1.197	-	-	-0.02	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	633334	3500.01	23.45	24.00	1.135	-	-	-0.16	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	633334	3500.01	23.22	24.00	1.197	-	-	0.07	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	633334	3500.01	23.45	24.00	1.135	-	-	0.05	0.001	0.001
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	633334	3500.01	23.22	24.00	1.197	-	-	0.13	0.001	0.001
	FR1 n77 Part27Q_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	633334	3500.01	26.42	27.00	1.143	50	1.000	0.03	0.031	0.035
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	16.28	17.20	1.236	-	-	0.05	0.827	1.022
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	16.16	17.20	1.271	-	-	0.06	0.738	0.938
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	656000	3840	16.14	17.20	1.276	-	-	0.1	0.750	0.957
30	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	16.28	17.20	1.236	-	-	0.14	1.000	1.236
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	656000	3840	15.25	16.20	1.245	-	-	0.17	0.784	0.976
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	16.16	17.20	1.271	-	-	0.08	0.884	1.123
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	16.14	17.20	1.276	-	-	0.09	0.894	1.141
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	656000	3840	16.28	17.20	1.236	-	-	0.03	0.413	0.510
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	656000	3840	16.16	17.20	1.271	-	-	0.01	0.386	0.490
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	656000	3840	16.28	17.20	1.236	-	-	0.08	0.530	0.655
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	656000	3840	16.16	17.20	1.271	-	-	-0.14	0.494	0.628
	FR1 n77 Part27O_PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	656000	3840	19.47	20.20	1.183	50	1.000	-0.17	0.978	1.157
	FR1 n77 Part27O_PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	656000	3840	18.42	19.20	1.197	50	1.000	0.02	0.753	0.901
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633334	3500.01	16.49	17.20	1.178	-	-	-0.02	0.691	0.814



FCC SAR Test Report

Report No. : FA2D0913

FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633334	3500.01	16.45	17.20	1.189	-	-	0.03	0.700	0.832
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Right Cheek	0mm	Ant 2	DSI 2	633334	3500.01	16.39	17.20	1.205	-	-	0.14	0.682	0.822
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633334	3500.01	16.49	17.20	1.178	-	-	0.04	0.871	1.026
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633334	3500.01	16.45	17.20	1.189	-	-	0.01	0.873	1.038
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	633334	3500.01	15.38	16.20	1.208	-	-	-0.16	0.716	0.865
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633334	3500.01	16.39	17.20	1.205	-	-	0.1	0.858	1.034
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	633334	3500.01	16.49	17.20	1.178	-	-	0.08	0.350	0.412
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 2	DSI 2	633334	3500.01	16.45	17.20	1.189	-	-	0.03	0.352	0.418
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	633334	3500.01	16.49	17.20	1.178	-	-	0.14	0.459	0.541
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 2	DSI 2	633334	3500.01	16.45	17.20	1.189	-	-	-0.16	0.467	0.555
FR1 n77 Part27Q_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2	633334	3500.01	19.51	20.20	1.172	50	1.000	-0.09	0.936	1.097
FR1 n77 Part27Q_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 2	DSI 2 Simultaneous	633334	3500.01	18.45	19.20	1.189	50	1.000	0.01	0.733	0.871
FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	656000	3840	16.32	16.80	1.117	-	-	0.05	0.161	0.180
FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	656000	3840	16.26	16.80	1.132	-	-	-0.03	0.142	0.161
FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	656000	3840	16.32	16.80	1.117	-	-	0.09	0.197	0.220
FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	656000	3840	16.26	16.80	1.132	-	-	0.02	0.170	0.193
FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	656000	3840	16.32	16.80	1.117	-	-	-0.06	0.411	0.459
FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	656000	3840	16.26	16.80	1.132	-	-	0.08	0.350	0.396
FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	656000	3840	16.32	16.80	1.117	-	-	0.08	0.945	1.055
FR1 n77 Part27O	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2 Simultaneous	656000	3840	15.29	16.10	1.205	-	-	-0.05	0.725	0.874
FR1 n77 Part27O	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	656000	3840	16.26	16.80	1.132	-	-	0.04	0.783	0.887
FR1 n77 Part27O	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	656000	3840	16.14	16.80	1.164	-	-	0.02	0.791	0.921
FR1 n77 Part27O_PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	656000	3840	19.18	19.80	1.153	50	1.000	0.12	0.963	1.111
FR1 n77 Part27O_PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2 Simultaneous	656000	3840	18.22	19.10	1.225	50	1.000	-0.09	0.711	0.871
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	633334	3500.01	16.56	16.80	1.057	-	-	0.18	0.125	0.132
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	633334	3500.01	16.51	16.80	1.069	-	-	0.05	0.129	0.138
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	633334	3500.01	16.56	16.80	1.057	-	-	0.07	0.164	0.173
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	633334	3500.01	16.51	16.80	1.069	-	-	0.08	0.170	0.182
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	633334	3500.01	16.56	16.80	1.057	-	-	-0.15	0.365	0.386
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	633334	3500.01	16.51	16.80	1.069	-	-	0.15	0.368	0.393
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	633334	3500.01	16.56	16.80	1.057	-	-	0.16	0.459	0.485
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	633334	3500.01	16.51	16.80	1.069	-	-	0.09	0.459	0.491
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2 Simultaneous	633334	3500.01	15.42	16.10	1.169	-	-	0.05	0.367	0.429
FR1 n77 Part27Q_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	633334	3500.01	19.48	19.80	1.076	50	1.000	-0.05	0.483	0.520
FR1 n77 Part27Q_PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2 Simultaneous	633334	3500.01	18.64	19.10	1.112	50	1.000	0.06	0.387	0.430



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)
WIFI&BT																
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 5+4	Standalone	11	2462	19.71	21.00	1.346	100	1.000	0.09	0.840	1.131
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 5+4	Standalone	6	2437	19.61	21.00	1.376	100	1.000	0.13	0.753	1.036
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 5+4	Standalone	11	2462	19.71	21.00	1.346	100	1.000	0.03	0.127	0.171
31	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+4	Standalone	11	2462	19.71	21.00	1.346	100	1.000	0.15	0.890	1.198
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+4	DBS Only	11	2462	17.20	18.50	1.349	100	1.000	0.01	0.585	0.789
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 5+4	DBS Only	11	2462	17.20	18.50	1.349	100	1.000	0.05	0.552	0.744
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 5+4	DBS Only	11	2462	17.20	18.50	1.349	100	1.000	0.15	0.083	0.112
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 5+4	DBS Only	11	2462	17.20	18.50	1.349	100	1.000	-0.05	0.172	0.232
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+4	WWAN +non DBS	11	2462	14.18	15.50	1.355	100	1.000	-0.09	0.261	0.354
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 5+4	WWAN +non DBS	11	2462	14.18	15.50	1.355	100	1.000	-0.16	0.246	0.333
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 5+4	WWAN +non DBS	11	2462	14.18	15.50	1.355	100	1.000	0.09	0.037	0.050
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 5+4	WWAN +non DBS	11	2462	14.18	15.50	1.355	100	1.000	0.04	0.077	0.104
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+4	WWAN +DBS	11	2462	11.23	12.50	1.340	100	1.000	0.19	0.133	0.178
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 5+4	WWAN +DBS	11	2462	11.23	12.50	1.340	100	1.000	0.04	0.126	0.169
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 5+4	WWAN +DBS	11	2462	11.23	12.50	1.340	100	1.000	0.03	0.019	0.025
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 5+4	WWAN +DBS	11	2462	11.23	12.50	1.340	100	1.000	0.02	0.039	0.052
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+4	Standalone	6	2437	19.61	21.00	1.376	100	1.000	-0.14	0.822	1.131
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 5+4	Standalone	1	2412	19.33	21.00	1.468	100	1.000	-0.05	0.775	1.138
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 5+4	Standalone	11	2462	19.71	21.00	1.346	100	1.000	-0.01	0.262	0.353
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 4	Full Power	39	2441	11.57	12.00	1.104	77.03	1.081	-0.14	0.073	0.087
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 4	Full Power	0	2402	10.42	11.00	1.143	77.03	1.081	0.09	0.062	0.077
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 4	Full Power	78	2480	9.11	10.00	1.227	77.03	1.081	0.15	0.051	0.068
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 4	Full Power	39	2441	11.57	12.00	1.104	77.03	1.081	0.12	0.001	0.001
32	Bluetooth	1Mbps	Left Cheek	0mm	Ant 4	Full Power	39	2441	11.57	12.00	1.104	77.03	1.081	-0.06	0.147	0.175
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 4	Full Power	39	2441	11.57	12.00	1.104	77.03	1.081	-0.13	0.001	0.001
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 5	Full Power	39	2441	8.53	9.00	1.114	76.86	1.084	0.05	0.066	0.080
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 5	Full Power	0	2402	7.71	9.00	1.346	76.86	1.084	0.05	0.054	0.079
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 5	Full Power	78	2480	6.12	7.00	1.225	76.86	1.084	0.06	0.044	0.058
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 5	Full Power	39	2441	8.53	9.00	1.114	76.86	1.084	-0.06	0.000	0.000
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 5	Full Power	39	2441	8.53	9.00	1.114	76.86	1.084	0.04	0.065	0.079
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 5	Full Power	39	2441	8.53	9.00	1.114	76.86	1.084	-0.11	0.016	0.019
	WLAN 5.3GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 5+4	Standalone	56	5280	22.13	23.50	1.371	99.32	1.007	-0.04	0.625	0.863
	WLAN 5.3GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 5+4	Standalone	52	5260	22.13	23.50	1.371	99.32	1.007	-0.19	0.718	0.991
	WLAN 5.3GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 5+4	Standalone	56	5280	22.13	23.50	1.371	99.32	1.007	-0.18	0.643	0.888
	WLAN 5.3GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 5+4	Standalone	52	5260	22.13	23.50	1.371	99.32	1.007	-0.03	0.665	0.918
	WLAN 5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 5+4	Standalone	56	5280	22.13	23.50	1.371	99.32	1.007	0.14	0.826	1.140
33	WLAN 5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 5+4	Standalone	52	5260	22.13	23.50	1.371	99.32	1.007	-0.18	0.864	1.193
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	DBS Only	58	5290	19.64	21.00	1.368	100	1.000	0.14	0.517	0.707
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	DBS Only	58	5290	19.64	21.00	1.368	100	1.000	0.13	0.430	0.588
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	DBS Only	58	5290	19.64	21.00	1.368	100	1.000	0.15	0.398	0.544
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	DBS Only	58	5290	19.64	21.00	1.368	100	1.000	0.02	0.285	0.390
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	WWAN +non DBS	58	5290	16.77	18.00	1.327	100	1.000	-0.15	0.264	0.350
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	WWAN +non DBS	58	5290	16.77	18.00	1.327	100	1.000	0.02	0.219	0.291
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	WWAN +non DBS	58	5290	16.77	18.00	1.327	100	1.000	-0.14	0.203	0.269
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	WWAN +non DBS	58	5290	16.77	18.00	1.327	100	1.000	-0.11	0.146	0.194
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	WWAN +DBS	58	5290	13.77	15.00	1.327	100	1.000	0.15	0.136	0.181
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	WWAN +DBS	58	5290	13.77	15.00	1.327	100	1.000	0.04	0.113	0.150
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	WWAN +DBS	58	5290	13.77	15.00	1.327	100	1.000	0.12	0.105	0.139
	WLAN 5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	WWAN +DBS	58	5290	13.77	15.00	1.327	100	1.000	-0.04	0.075	0.100
	WLAN 5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 5+4	Standalone	60	5300	21.94	23.50	1.432	99.32	1.007	0.12	0.821	1.184
	WLAN 5.3GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 5+4	Standalone	64	5320	21.93	23.50	1.435	99.32	1.007	0.12	0.814	1.177



	WLAN 5.3GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 5+4	Standalone	56	5280	22.13	23.50	1.371	99.32	1.007	0.14	0.477	0.658
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	Standalone	138	5690	19.38	20.50	1.293	100	1.000	-0.19	0.320	0.414
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	Standalone	138	5690	19.38	20.50	1.293	100	1.000	0.11	0.224	0.290
34	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	Standalone	138	5690	19.38	20.50	1.293	100	1.000	-0.17	0.922	1.192
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	DBS Only	138	5690	17.39	18.50	1.292	100	1.000	0.02	0.601	0.777
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	DBS Only	138	5690	17.39	18.50	1.292	100	1.000	0.02	0.209	0.270
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	DBS Only	138	5690	17.39	18.50	1.292	100	1.000	-0.11	0.146	0.189
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	DBS Only	138	5690	17.39	18.50	1.292	100	1.000	-0.04	0.315	0.407
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	WWAN +non DBS	138	5690	14.41	15.50	1.285	100	1.000	-0.16	0.302	0.388
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	WWAN +non DBS	138	5690	14.41	15.50	1.285	100	1.000	-0.18	0.105	0.135
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	WWAN +non DBS	138	5690	14.41	15.50	1.285	100	1.000	-0.14	0.073	0.094
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	WWAN +non DBS	138	5690	14.41	15.50	1.285	100	1.000	0.12	0.158	0.203
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	WWAN +DBS	138	5690	11.40	12.50	1.290	100	1.000	-0.1	0.154	0.199
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	WWAN +DBS	138	5690	11.40	12.50	1.290	100	1.000	-0.18	0.053	0.068
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	WWAN +DBS	138	5690	11.40	12.50	1.290	100	1.000	0.15	0.037	0.048
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	WWAN +DBS	138	5690	11.40	12.50	1.290	100	1.000	0.04	0.081	0.104
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	Standalone	122	5610	19.11	20.50	1.376	100	1.000	-0.18	0.833	1.147
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	Standalone	106	5530	18.88	20.50	1.451	100	1.000	0.02	0.811	1.177
	WLAN 5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	Standalone	138	5690	19.38	20.50	1.293	100	1.000	0.06	0.483	0.625
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	Standalone	155	5775	19.54	21.00	1.400	100	1.000	0.01	0.309	0.432
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	Standalone	155	5775	19.54	21.00	1.400	100	1.000	0.02	0.166	0.232
35	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	Standalone	155	5775	19.54	21.00	1.400	100	1.000	-0.09	0.822	1.150
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	DBS Only	155	5775	17.55	19.00	1.396	100	1.000	0.17	0.521	0.728
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	DBS Only	155	5775	17.55	19.00	1.396	100	1.000	-0.11	0.196	0.274
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	DBS Only	155	5775	17.55	19.00	1.396	100	1.000	0.12	0.105	0.147
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	DBS Only	155	5775	17.55	19.00	1.396	100	1.000	0.11	0.245	0.342
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	WWAN +non DBS	155	5775	14.55	16.00	1.396	100	1.000	0.01	0.270	0.377
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	WWAN +non DBS	155	5775	14.55	16.00	1.396	100	1.000	-0.14	0.101	0.141
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	WWAN +non DBS	155	5775	14.55	16.00	1.396	100	1.000	0.12	0.055	0.077
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	WWAN +non DBS	155	5775	14.55	16.00	1.396	100	1.000	0.02	0.127	0.177
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+4	WWAN +DBS	155	5775	11.56	13.00	1.393	100	1.000	-0.07	0.131	0.183
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+4	WWAN +DBS	155	5775	11.56	13.00	1.393	100	1.000	0.11	0.049	0.068
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+4	WWAN +DBS	155	5775	11.56	13.00	1.393	100	1.000	-0.16	0.026	0.036
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	WWAN +DBS	155	5775	11.56	13.00	1.393	100	1.000	0.15	0.062	0.086
	WLAN 5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+4	Standalone	155	5775	19.54	21.00	1.400	100	1.000	-0.02	0.387	0.542



16.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	EUT Flip State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																			
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	133322	683	open	23.04	24.00	1.247	-0.08	0.170	0.212
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 3	133322	683	open	22.94	24.00	1.276	0.17	0.165	0.211
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	133322	683	open	23.04	24.00	1.247	0.16	0.187	0.233
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 3	133322	683	open	22.94	24.00	1.276	0.18	0.247	0.315
	LTE Band 71	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	133322	683	open	23.04	24.00	1.247	0.03	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 3	133322	683	open	22.94	24.00	1.276	0.01	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	133322	683	open	23.04	24.00	1.247	-0.07	0.134	0.167
	LTE Band 71	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 3	133322	683	open	22.94	24.00	1.276	0.06	0.154	0.197
	LTE Band 71	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	133322	683	open	23.04	24.00	1.247	-0.18	0.272	0.339
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	133322	683	open	22.94	24.00	1.276	0.18	0.335	0.428
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	133222	673	open	22.76	24.00	1.330	0.01	0.233	0.310
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 3	133372	688	open	22.84	24.00	1.306	0.07	0.215	0.281
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	133322	683	open	21.85	23.00	1.303	-0.14	0.170	0.222
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 3	133322	683	open	21.79	23.00	1.321	0.13	0.161	0.213
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	133322	683	open	21.85	23.00	1.303	0.08	0.271	0.353
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	133222	673	open	21.76	23.00	1.330	0.03	0.260	0.346
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	133372	688	open	21.69	23.00	1.352	0.05	0.253	0.342
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 3	133322	683	open	21.79	23.00	1.321	0.12	0.248	0.328
	LTE Band 71	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	133322	683	open	21.85	23.00	1.303	0.05	0.124	0.162
	LTE Band 71	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 3	133322	683	open	21.79	23.00	1.321	0.12	0.116	0.153
	LTE Band 71	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	133322	683	open	21.85	23.00	1.303	0.08	0.052	0.068
	LTE Band 71	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 3	133322	683	open	21.79	23.00	1.321	-0.08	0.050	0.066
	LTE Band 71	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 3	133322	683	open	21.85	23.00	1.303	0.03	0.237	0.309
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 3	133322	683	open	21.79	23.00	1.321	0.16	0.224	0.296
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 5	133322	683	close	23.04	24.00	1.247	0.02	0.053	0.066
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 0	DSI 5	133322	683	close	22.94	24.00	1.276	0.12	0.001	0.001
36	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	133322	683	close	23.04	24.00	1.247	-0.02	0.471	0.588
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	133222	673	close	22.95	24.00	1.274	0.01	0.389	0.495
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	133372	688	close	22.89	24.00	1.291	0.05	0.372	0.480
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 5	133322	683	close	22.94	24.00	1.276	-0.17	0.364	0.465
	LTE Band 71	20M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 5	133322	683	close	23.04	24.00	1.247	0.05	0.051	0.064
	LTE Band 71	20M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 5	133322	683	close	22.94	24.00	1.276	-0.13	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 5	133322	683	close	23.04	24.00	1.247	0.06	0.325	0.405
	LTE Band 71	20M	QPSK	50	0	-	Right Side	5mm	Ant 0	DSI 5	133322	683	close	22.94	24.00	1.276	0.05	0.261	0.333
	LTE Band 71	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 5	133322	683	close	23.04	24.00	1.247	-0.12	0.468	0.584
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 5	133322	683	close	22.94	24.00	1.276	0.08	0.360	0.460
	LTE Band 71	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 5	133322	683	close	21.85	23.00	1.303	0.04	0.023	0.030
	LTE Band 71	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 5	133322	683	close	21.79	23.00	1.321	-0.12	0.015	0.020
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	133322	683	close	21.85	23.00	1.303	0.11	0.201	0.262
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	133222	673	close	21.76	23.00	1.330	0.03	0.191	0.254
	LTE Band 71	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	133372	688	close	21.69	23.00	1.352	0.1	0.189	0.256
	LTE Band 71	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 5	133322	683	close	21.79	23.00	1.321	0.1	0.172	0.227
	LTE Band 71	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 5	133322	683	close	21.85	23.00	1.303	-0.14	0.082	0.107
	LTE Band 71	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 5	133322	683	close	21.79	23.00	1.321	0.02	0.074	0.098
	LTE Band 71	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 5	133322	683	close	21.85	23.00	1.303	-0.14	0.001	0.001
	LTE Band 71	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 5	133322	683	close	21.79	23.00	1.321	0.05	0.001	0.001
	LTE Band 71	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 5	133322	683	close	21.85	23.00	1.303	0.01	0.125	0.163
	LTE Band 71	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 5	133322	683	close	21.79	23.00	1.321	0.06	0.105	0.139
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	23095	707.5	open	22.92	24.00	1.282	-0.12	0.217	0.278
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 3	23095	707.5	open	22.82	24.00	1.312	0.02	0.067	0.088
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	23095	707.5	open	22.92	24.00	1.282	0.15	0.296	0.380



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 3	23095	707.5	open	22.82	24.00	1.312	0.04	0.090	0.118
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	23095	707.5	open	22.92	24.00	1.282	0.14	0.045	0.058
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 3	23095	707.5	open	22.82	24.00	1.312	0.12	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	23095	707.5	open	22.92	24.00	1.282	0.09	0.168	0.215
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 3	23095	707.5	open	22.82	24.00	1.312	0.06	0.054	0.071
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	23095	707.5	open	22.92	24.00	1.282	0.15	0.308	0.395
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	23060	704	open	22.84	24.00	1.306	0.06	0.288	0.376
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	23130	711	open	22.79	24.00	1.321	0.01	0.228	0.301
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 3	23095	707.5	open	22.82	24.00	1.312	0.08	0.088	0.115
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	23095	707.5	open	21.73	23.00	1.340	-0.02	0.283	0.379
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 3	23095	707.5	open	21.70	23.00	1.349	0.04	0.068	0.092
37	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	23095	707.5	open	21.73	23.00	1.340	0.18	0.404	0.541
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	23060	704	open	21.61	23.00	1.377	0.01	0.390	0.537
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	23130	711	open	21.68	23.00	1.355	0.12	0.384	0.520
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 3	23095	707.5	open	21.70	23.00	1.349	0.12	0.101	0.136
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	23095	707.5	open	21.73	23.00	1.340	-0.04	0.140	0.188
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 3	23095	707.5	open	21.70	23.00	1.349	0.02	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	23095	707.5	open	21.73	23.00	1.340	0.03	0.065	0.087
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	DSI 3	23095	707.5	open	21.70	23.00	1.349	0.07	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 3	23095	707.5	open	21.73	23.00	1.340	0.03	0.385	0.516
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	DSI 3	23095	707.5	open	21.70	23.00	1.349	-0.02	0.089	0.120
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 3	23095	707.5	open	22.59	24.00	1.384	0.04	0.044	0.061
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 2	DSI 3	23095	707.5	open	22.55	24.00	1.396	0.18	0.120	0.168
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 3	23095	707.5	open	22.59	24.00	1.384	-0.11	0.182	0.252
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 2	DSI 3	23095	707.5	open	22.55	24.00	1.396	0.16	0.083	0.116
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	23095	707.5	open	22.59	24.00	1.384	-0.15	0.119	0.165
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 2	DSI 3	23095	707.5	open	22.55	24.00	1.396	-0.05	0.086	0.120
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 3	23095	707.5	open	22.59	24.00	1.384	-0.02	0.043	0.059
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 2	DSI 3	23095	707.5	open	22.55	24.00	1.396	-0.17	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	-	Top Side	5mm	Ant 2	DSI 3	23095	707.5	open	22.59	24.00	1.384	0.01	0.344	0.476
	LTE Band 12	10M	QPSK	1	0	-	Top Side	5mm	Ant 2	DSI 3	23060	704	open	22.51	24.00	1.409	0.06	0.291	0.410
	LTE Band 12	10M	QPSK	1	0	-	Top Side	5mm	Ant 2	DSI 3	23130	711	open	22.50	24.00	1.413	-0.12	0.288	0.407
	LTE Band 12	10M	QPSK	25	0	-	Top Side	5mm	Ant 2	DSI 3	23095	707.5	open	22.55	24.00	1.396	0.02	0.092	0.128
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 5	23095	707.5	close	22.92	24.00	1.282	-0.13	0.040	0.051
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 5	23095	707.5	close	22.82	24.00	1.312	0.03	0.037	0.049
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	23095	707.5	close	22.92	24.00	1.282	0.01	0.339	0.435
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	23060	704	close	22.84	24.00	1.306	0.05	0.318	0.415
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	23130	711	close	22.79	24.00	1.321	0.04	0.299	0.395
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 5	23095	707.5	close	22.82	24.00	1.312	-0.06	0.265	0.348
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 5	23095	707.5	close	22.92	24.00	1.282	0.08	0.040	0.051
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 5	23095	707.5	close	22.82	24.00	1.312	-0.04	0.034	0.045
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 5	23095	707.5	close	22.92	24.00	1.282	0.05	0.263	0.337
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 5	23095	707.5	close	22.82	24.00	1.312	0.04	0.209	0.274
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 5	23095	707.5	close	22.92	24.00	1.282	-0.18	0.302	0.387
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 5	23095	707.5	close	22.82	24.00	1.312	0.06	0.294	0.386
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 5	23095	707.5	close	21.73	23.00	1.340	-0.15	0.037	0.050
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 5	23095	707.5	close	21.70	23.00	1.349	0.18	0.024	0.032
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	23095	707.5	close	21.73	23.00	1.340	-0.09	0.241	0.323
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	23060	704	close	21.73	23.00	1.340	0.03	0.233	0.312
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	23130	711	close	21.73	23.00	1.340	0.05	0.215	0.288
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 5	23095	707.5	close	21.70	23.00	1.349	-0.17	0.174	0.235
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 5	23095	707.5	close	21.73	23.00	1.340	0.1	0.124	0.166
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 5	23095	707.5	close	21.70	23.00	1.349	-0.17	0.098	0.132
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 5	23095	707.5	close	21.73	23.00	1.340	-0.05	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	DSI 5	23095	707.5	close	21.70	23.00	1.349	0.15	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 5	23095	707.5	close	21.73	23.00	1.340	-0.1	0.157	0.210



	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	DSI 5	23095	707.5	close	21.70	23.00	1.349	0.05	0.120	0.162
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 5	23095	707.5	close	22.59	24.00	1.384	-0.01	0.119	0.165
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 2	DSI 5	23095	707.5	close	22.55	24.00	1.396	-0.15	0.097	0.135
	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 5	23095	707.5	close	22.59	24.00	1.384	-0.06	0.089	0.123
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 2	DSI 5	23095	707.5	close	22.55	24.00	1.396	0.01	0.079	0.110
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 5	23095	707.5	close	22.59	24.00	1.384	0.01	0.179	0.248
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 2	DSI 5	23095	707.5	close	22.55	24.00	1.396	-0.05	0.149	0.208
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 5	23095	707.5	close	22.59	24.00	1.384	0.09	0.001	0.001
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 2	DSI 5	23095	707.5	close	22.55	24.00	1.396	0.09	0.001	0.001
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 2	DSI 5	23095	707.5	close	22.59	24.00	1.384	0.05	0.294	0.407
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 2	DSI 5	23060	704	close	22.59	24.00	1.384	0.01	0.255	0.353
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 2	DSI 5	23130	711	close	22.59	24.00	1.384	0.06	0.271	0.375
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 2	DSI 5	23095	707.5	close	22.55	24.00	1.396	0.09	0.246	0.344
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	23230	782	open	23.07	24.00	1.239	-0.11	0.561	0.695
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 3	23230	782	open	22.98	24.00	1.265	0.11	0.448	0.567
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	23230	782	open	23.07	24.00	1.239	0.09	0.467	0.579
38	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 3	23230	782	open	22.98	24.00	1.265	-0.17	0.625	0.790
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	23230	782	open	23.07	24.00	1.239	-0.03	0.108	0.134
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 3	23230	782	open	22.98	24.00	1.265	-0.1	0.110	0.139
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	23230	782	open	23.07	24.00	1.239	-0.12	0.422	0.523
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 3	23230	782	open	22.98	24.00	1.265	-0.06	0.350	0.443
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	23230	782	open	23.07	24.00	1.239	-0.04	0.301	0.373
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 3	23230	782	open	22.98	24.00	1.265	0.05	0.247	0.312
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	23230	782	open	21.67	23.00	1.358	-0.03	0.153	0.208
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 3	23230	782	open	21.63	23.00	1.371	-0.1	0.141	0.193
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	23230	782	open	21.67	23.00	1.358	0.1	0.292	0.397
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 3	23230	782	open	21.63	23.00	1.371	-0.05	0.188	0.258
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	23230	782	open	21.67	23.00	1.358	-0.11	0.094	0.128
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 3	23230	782	open	21.63	23.00	1.371	-0.15	0.091	0.125
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	23230	782	open	21.67	23.00	1.358	0.08	0.025	0.034
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	DSI 3	23230	782	open	21.63	23.00	1.371	0.04	0.027	0.037
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 3	23230	782	open	21.67	23.00	1.358	0.06	0.437	0.594
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	DSI 3	23230	782	open	21.63	23.00	1.371	0.12	0.233	0.319
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 3	23230	782	open	22.53	24.00	1.403	0.03	0.340	0.477
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 2	DSI 3	23230	782	open	22.45	24.00	1.429	0.19	0.274	0.392
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 3	23230	782	open	22.53	24.00	1.403	0.05	0.345	0.484
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 2	DSI 3	23230	782	open	22.45	24.00	1.429	-0.16	0.281	0.402
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	23230	782	open	22.53	24.00	1.403	-0.18	0.119	0.167
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 2	DSI 3	23230	782	open	22.45	24.00	1.429	0.08	0.098	0.140
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 3	23230	782	open	22.53	24.00	1.403	-0.11	0.036	0.051
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 2	DSI 3	23230	782	open	22.45	24.00	1.429	-0.02	0.030	0.043
	LTE Band 13	10M	QPSK	1	0	-	Top Side	5mm	Ant 2	DSI 3	23230	782	open	22.53	24.00	1.403	-0.01	0.339	0.476
	LTE Band 13	10M	QPSK	25	0	-	Top Side	5mm	Ant 2	DSI 3	23230	782	open	22.45	24.00	1.429	0.09	0.279	0.399
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 5	23230	782	close	23.07	24.00	1.239	0.18	0.037	0.046
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 5	23230	782	close	22.98	24.00	1.265	-0.16	0.031	0.039
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	23230	782	close	23.07	24.00	1.239	-0.03	0.402	0.498
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 5	23230	782	close	22.98	24.00	1.265	-0.1	0.316	0.400
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 5	23230	782	close	23.07	24.00	1.239	0.05	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 5	23230	782	close	22.98	24.00	1.265	0.17	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 5	23230	782	close	23.07	24.00	1.239	0.08	0.310	0.384
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 5	23230	782	close	22.98	24.00	1.265	-0.11	0.276	0.349
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 5	23230	782	close	23.07	24.00	1.239	0.05	0.394	0.488
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 5	23230	782	close	22.98	24.00	1.265	-0.13	0.318	0.402
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 5	23230	782	close	21.67	23.00	1.358	-0.06	0.042	0.057
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 5	23230	782	close	21.63	23.00	1.371	-0.16	0.035	0.048
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	23230	782	close	21.67	23.00	1.358	0.12	0.211	0.287



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 5	23230	782	close	21.63	23.00	1.371	0.11	0.175	0.240
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 5	23230	782	close	21.67	23.00	1.358	0.17	0.096	0.130
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 5	23230	782	close	21.63	23.00	1.371	-0.09	0.078	0.107
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 5	23230	782	close	21.67	23.00	1.358	0.06	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	DSI 5	23230	782	close	21.63	23.00	1.371	0.1	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 5	23230	782	close	21.67	23.00	1.358	0.04	0.143	0.194
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	DSI 5	23230	782	close	21.63	23.00	1.371	0.01	0.116	0.159
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 5	23230	782	close	22.53	24.00	1.403	0.07	0.254	0.356
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 2	DSI 5	23230	782	close	22.45	24.00	1.429	-0.15	0.206	0.294
	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 5	23230	782	close	22.53	24.00	1.403	-0.02	0.263	0.369
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 2	DSI 5	23230	782	close	22.45	24.00	1.429	0.15	0.214	0.306
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 5	23230	782	close	22.53	24.00	1.403	0.02	0.307	0.431
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 2	DSI 5	23230	782	close	22.45	24.00	1.429	-0.17	0.247	0.353
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 5	23230	782	close	22.53	24.00	1.403	0.06	0.001	0.001
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 2	DSI 5	23230	782	close	22.45	24.00	1.429	0.02	0.001	0.001
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 2	DSI 5	23230	782	close	22.53	24.00	1.403	0.03	0.475	0.666
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 2	DSI 5	23230	782	close	22.45	24.00	1.429	0.1	0.380	0.543
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	23330	793	open	23.06	24.00	1.242	-0.05	0.366	0.454
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 3	23330	793	open	22.95	24.00	1.274	-0.18	0.312	0.397
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	23330	793	open	23.06	24.00	1.242	0.08	0.502	0.623
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 3	23330	793	open	22.95	24.00	1.274	0.16	0.419	0.534
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	23330	793	open	23.06	24.00	1.242	-0.05	0.061	0.076
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 3	23330	793	open	22.95	24.00	1.274	0.06	0.051	0.065
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	23330	793	open	23.06	24.00	1.242	-0.18	0.201	0.250
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 3	23330	793	open	22.95	24.00	1.274	-0.08	0.159	0.202
	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	23330	793	open	23.06	24.00	1.242	0.09	0.490	0.608
	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 3	23330	793	open	22.95	24.00	1.274	-0.12	0.407	0.518
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	23330	793	open	21.72	23.00	1.343	0.04	0.319	0.428
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 3	23330	793	open	21.68	23.00	1.355	-0.02	0.249	0.337
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	23330	793	open	21.72	23.00	1.343	-0.05	0.468	0.628
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 3	23330	793	open	21.68	23.00	1.355	-0.02	0.381	0.516
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	23330	793	open	21.72	23.00	1.343	-0.17	0.195	0.262
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 3	23330	793	open	21.68	23.00	1.355	-0.08	0.154	0.209
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	23330	793	open	21.72	23.00	1.343	0.06	0.082	0.110
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	DSI 3	23330	793	open	21.68	23.00	1.355	0.05	0.069	0.094
	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 3	23330	793	open	21.72	23.00	1.343	-0.18	0.459	0.616
	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	DSI 3	23330	793	open	21.68	23.00	1.355	-0.04	0.312	0.423
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 3	23330	793	open	22.62	24.00	1.374	0.15	0.291	0.400
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 2	DSI 3	23330	793	open	22.50	24.00	1.413	-0.12	0.227	0.321
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 3	23330	793	open	22.62	24.00	1.374	-0.14	0.299	0.411
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 2	DSI 3	23330	793	open	22.50	24.00	1.413	0.17	0.233	0.329
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 3	23330	793	open	22.62	24.00	1.374	0.04	0.127	0.175
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 2	DSI 3	23330	793	open	22.50	24.00	1.413	0.16	0.095	0.134
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 3	23330	793	open	22.62	24.00	1.374	0.07	0.049	0.067
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 2	DSI 3	23330	793	open	22.50	24.00	1.413	0.08	0.039	0.055
	LTE Band 14	10M	QPSK	1	0	-	Top Side	5mm	Ant 2	DSI 3	23330	793	open	22.62	24.00	1.374	0.15	0.377	0.518
	LTE Band 14	10M	QPSK	25	0	-	Top Side	5mm	Ant 2	DSI 3	23330	793	open	22.50	24.00	1.413	0.09	0.307	0.434
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 5	23330	793	close	23.06	24.00	1.242	0.12	0.069	0.086
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 5	23330	793	close	22.95	24.00	1.274	-0.08	0.044	0.056
39	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 5	23330	793	close	23.06	24.00	1.242	-0.11	0.626	0.777
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 5	23330	793	close	22.95	24.00	1.274	0.16	0.514	0.655
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 5	23330	793	close	23.06	24.00	1.242	-0.17	0.045	0.056
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 5	23330	793	close	22.95	24.00	1.274	-0.08	0.037	0.047
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 5	23330	793	close	23.06	24.00	1.242	0.07	0.521	0.647
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 5	23330	793	close	22.95	24.00	1.274	0.08	0.428	0.545
	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 5	23330	793	close	23.06	24.00	1.242	-0.12	0.571	0.709



FCC SAR Test Report

Report No. : FA2D0913

	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 5	23330	793	close	22.95	24.00	1.274	0.02	0.462	0.588
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 5	23330	793	close	21.72	23.00	1.343	-0.12	0.077	0.103
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 1	DSI 5	23330	793	close	21.68	23.00	1.355	0.11	0.065	0.088
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 5	23330	793	close	21.72	23.00	1.343	0.17	0.373	0.501
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 1	DSI 5	23330	793	close	21.68	23.00	1.355	0.08	0.304	0.412
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 5	23330	793	close	21.72	23.00	1.343	0.08	0.196	0.263
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 1	DSI 5	23330	793	close	21.68	23.00	1.355	0.11	0.159	0.215
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 5	23330	793	close	21.72	23.00	1.343	-0.15	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 1	DSI 5	23330	793	close	21.68	23.00	1.355	0.06	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 5	23330	793	close	21.72	23.00	1.343	-0.05	0.208	0.279
	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 1	DSI 5	23330	793	close	21.68	23.00	1.355	0.05	0.172	0.233
	LTE Band 14	10M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 5	23330	793	close	22.62	24.00	1.374	-0.19	0.254	0.349
	LTE Band 14	10M	QPSK	25	0	-	Front	5mm	Ant 2	DSI 5	23330	793	close	22.50	24.00	1.413	0.05	0.207	0.292
	LTE Band 14	10M	QPSK	1	0	-	Back	5mm	Ant 2	DSI 5	23330	793	close	22.62	24.00	1.374	0.14	0.258	0.355
	LTE Band 14	10M	QPSK	25	0	-	Back	5mm	Ant 2	DSI 5	23330	793	close	22.50	24.00	1.413	-0.04	0.204	0.288
	LTE Band 14	10M	QPSK	1	0	-	Left Side	5mm	Ant 2	DSI 5	23330	793	close	22.62	24.00	1.374	0.18	0.312	0.429
	LTE Band 14	10M	QPSK	25	0	-	Left Side	5mm	Ant 2	DSI 5	23330	793	close	22.50	24.00	1.413	0.12	0.246	0.347
	LTE Band 14	10M	QPSK	1	0	-	Right Side	5mm	Ant 2	DSI 5	23330	793	close	22.62	24.00	1.374	0.11	0.001	0.001
	LTE Band 14	10M	QPSK	25	0	-	Right Side	5mm	Ant 2	DSI 5	23330	793	close	22.50	24.00	1.413	-0.06	0.001	0.001
	LTE Band 14	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 2	DSI 5	23330	793	close	22.62	24.00	1.374	-0.01	0.422	0.580
	LTE Band 14	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 2	DSI 5	23330	793	close	22.50	24.00	1.413	0.06	0.339	0.479
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	136100	680.5	open	23.38	24.00	1.153	0.15	0.228	0.263
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	136100	680.5	open	23.33	24.00	1.167	-0.07	0.209	0.244
40	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	136100	680.5	open	23.38	24.00	1.153	0.17	0.319	0.368
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	134600	673	open	23.27	24.00	1.183	0.05	0.307	0.363
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	137600	688	open	23.34	24.00	1.164	0.08	0.299	0.348
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	136100	680.5	open	23.33	24.00	1.167	0.13	0.264	0.308
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	136100	680.5	open	23.38	24.00	1.153	0.08	0.083	0.096
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	136100	680.5	open	23.33	24.00	1.167	-0.07	0.090	0.105
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	136100	680.5	open	23.38	24.00	1.153	0.13	0.200	0.231
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	136100	680.5	open	23.33	24.00	1.167	-0.12	0.192	0.224
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	136100	680.5	open	23.38	24.00	1.153	-0.12	0.298	0.344
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	136100	680.5	open	23.33	24.00	1.167	-0.14	0.243	0.284
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	136100	680.5	open	22.22	23.00	1.197	-0.14	0.081	0.097
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	136100	680.5	open	22.17	23.00	1.211	-0.19	0.092	0.111
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	136100	680.5	open	22.22	23.00	1.197	-0.15	0.187	0.224
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	136100	680.5	open	22.17	23.00	1.211	-0.08	0.208	0.252
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	134600	673	open	22.08	23.00	1.236	0.07	0.200	0.247
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	137600	688	open	22.03	23.00	1.250	0.12	0.195	0.244
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	136100	680.5	open	22.22	23.00	1.197	-0.18	0.060	0.072
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	136100	680.5	open	22.17	23.00	1.211	0.14	0.114	0.138
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	136100	680.5	open	22.22	23.00	1.197	0.14	0.031	0.037
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	136100	680.5	open	22.17	23.00	1.211	-0.04	0.001	0.001
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	136100	680.5	open	22.22	23.00	1.197	-0.12	0.172	0.206
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	136100	680.5	open	22.17	23.00	1.211	0.05	0.196	0.237
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	136100	680.5	close	23.38	24.00	1.153	-0.04	0.001	0.001
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	136100	680.5	close	23.33	24.00	1.167	-0.04	0.001	0.001
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	136100	680.5	close	23.38	24.00	1.153	-0.02	0.191	0.220
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	134600	673	close	23.27	24.00	1.183	0.05	0.183	0.216
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	137600	688	close	23.34	24.00	1.164	0.09	0.177	0.206
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	136100	680.5	close	23.33	24.00	1.167	0.08	0.127	0.148
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	136100	680.5	close	23.38	24.00	1.153	0.05	0.001	0.001
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	136100	680.5	close	23.33	24.00	1.167	0.03	0.001	0.001
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	136100	680.5	close	23.38	24.00	1.153	-0.1	0.095	0.110
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	136100	680.5	close	23.33	24.00	1.167	0.07	0.073	0.085
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	136100	680.5	close	23.38	24.00	1.153	0.04	0.110	0.127



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	136100	680.5	close	23.33	24.00	1.167	-0.1	0.101	0.118
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	136100	680.5	close	22.22	23.00	1.197	0.13	0.001	0.001
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	136100	680.5	close	22.17	23.00	1.211	0.12	0.001	0.001
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	136100	680.5	close	22.22	23.00	1.197	0.04	0.224	0.268
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	134600	673	close	22.14	23.00	1.219	0.05	0.213	0.260
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	137600	688	close	22.08	23.00	1.236	0.08	0.208	0.257
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	136100	680.5	close	22.17	23.00	1.211	-0.09	0.182	0.220
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	136100	680.5	close	22.22	23.00	1.197	0.09	0.066	0.079
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	136100	680.5	close	22.17	23.00	1.211	0.06	0.048	0.058
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	136100	680.5	close	22.22	23.00	1.197	0.17	0.001	0.001
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	136100	680.5	close	22.17	23.00	1.211	0.01	0.001	0.001
	FR1 n71	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	136100	680.5	close	22.22	23.00	1.197	0.02	0.118	0.141
	FR1 n71	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	136100	680.5	close	22.17	23.00	1.211	0.16	0.107	0.130
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	141500	707.5	open	23.19	24.00	1.205	-0.05	0.258	0.311
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	141500	707.5	open	23.06	24.00	1.242	-0.01	0.188	0.233
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	141500	707.5	open	23.19	24.00	1.205	-0.08	0.375	0.452
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	141500	707.5	open	23.13	24.00	1.222	0.03	0.364	0.445
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	141500	707.5	open	23.12	24.00	1.225	0.01	0.355	0.435
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	141500	707.5	open	23.06	24.00	1.242	0.18	0.294	0.365
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	141500	707.5	open	23.19	24.00	1.205	-0.17	0.059	0.071
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	141500	707.5	open	23.06	24.00	1.242	0.06	0.055	0.068
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	141500	707.5	open	23.19	24.00	1.205	0.02	0.206	0.248
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	141500	707.5	open	23.06	24.00	1.242	0.15	0.193	0.240
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	141500	707.5	open	23.19	24.00	1.205	-0.02	0.317	0.382
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	141500	707.5	open	23.06	24.00	1.242	-0.07	0.292	0.363
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	141500	707.5	open	21.95	23.00	1.274	0.1	0.161	0.205
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	141500	707.5	open	21.86	23.00	1.300	-0.04	0.160	0.208
41	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	141500	707.5	open	21.95	23.00	1.274	-0.03	0.380	0.484
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	141500	707.5	open	21.87	23.00	1.297	0.05	0.371	0.481
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	141500	707.5	open	21.82	23.00	1.312	0.09	0.365	0.479
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	141500	707.5	open	21.86	23.00	1.300	-0.17	0.318	0.413
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	141500	707.5	open	21.95	23.00	1.274	0.02	0.111	0.141
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	141500	707.5	open	21.86	23.00	1.300	0.07	0.167	0.217
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	141500	707.5	open	21.95	23.00	1.274	-0.14	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	141500	707.5	open	21.86	23.00	1.300	-0.1	0.001	0.001
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	141500	707.5	open	21.95	23.00	1.274	0.13	0.329	0.419
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	141500	707.5	open	21.86	23.00	1.300	-0.07	0.249	0.324
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	141500	707.5	close	23.19	24.00	1.205	-0.16	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	141500	707.5	close	23.06	24.00	1.242	0.02	0.001	0.001
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	141500	707.5	close	23.19	24.00	1.205	0.17	0.088	0.106
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	141500	707.5	close	23.13	24.00	1.222	0.03	0.079	0.097
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	141500	707.5	close	23.12	24.00	1.225	0.09	0.071	0.087
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	141500	707.5	close	23.06	24.00	1.242	-0.02	0.053	0.066
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	141500	707.5	close	23.19	24.00	1.205	-0.03	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	141500	707.5	close	23.06	24.00	1.242	0.04	0.001	0.001
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	141500	707.5	close	23.19	24.00	1.205	0.15	0.050	0.060
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	141500	707.5	close	23.06	24.00	1.242	-0.05	0.022	0.027
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	141500	707.5	close	23.19	24.00	1.205	0.18	0.077	0.093
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	141500	707.5	close	23.06	24.00	1.242	0.02	0.067	0.083
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	141500	707.5	close	21.95	23.00	1.274	-0.08	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	141500	707.5	close	21.86	23.00	1.300	0.04	0.001	0.001
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	141500	707.5	close	21.95	23.00	1.274	-0.15	0.202	0.257
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	141500	707.5	close	21.87	23.00	1.297	0.01	0.196	0.254
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	141500	707.5	close	21.82	23.00	1.312	0.08	0.183	0.240
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	141500	707.5	close	21.86	23.00	1.300	0.16	0.177	0.230
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	141500	707.5	close	21.95	23.00	1.274	-0.11	0.139	0.177



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	141500	707.5	close	21.86	23.00	1.300	-0.18	0.123	0.160
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	141500	707.5	close	21.95	23.00	1.274	0.09	0.001	0.001
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	141500	707.5	close	21.86	23.00	1.300	0.08	0.001	0.001
	FR1 n12	15M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	141500	707.5	close	21.95	23.00	1.274	0.02	0.129	0.164
	FR1 n12	15M	QPSK	36	22	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	141500	707.5	close	21.86	23.00	1.300	0.06	0.115	0.150
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	156400	782	open	23.29	24.00	1.178	-0.1	0.252	0.297
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	156400	782	open	23.19	24.00	1.205	-0.04	0.277	0.334
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	156400	782	open	23.29	24.00	1.178	0.01	0.348	0.410
42	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	156400	782	open	23.19	24.00	1.205	0.17	0.408	0.492
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	156400	782	open	23.29	24.00	1.178	0.05	0.001	0.001
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	156400	782	open	23.19	24.00	1.205	0.08	0.060	0.072
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	156400	782	open	23.29	24.00	1.178	0.04	0.165	0.194
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	156400	782	open	23.19	24.00	1.205	0.03	0.208	0.251
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	156400	782	open	23.29	24.00	1.178	0.03	0.293	0.345
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	156400	782	open	23.19	24.00	1.205	0.17	0.314	0.378
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	156400	782	open	21.94	23.00	1.276	0.01	0.150	0.191
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	156400	782	open	21.89	23.00	1.291	0.04	0.151	0.195
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	156400	782	open	21.94	23.00	1.276	0.07	0.229	0.292
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	156400	782	open	21.89	23.00	1.291	0.07	0.222	0.287
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	156400	782	open	21.94	23.00	1.276	0.05	0.119	0.152
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	156400	782	open	21.89	23.00	1.291	-0.1	0.109	0.141
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	156400	782	open	21.94	23.00	1.276	-0.09	0.001	0.001
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	156400	782	open	21.89	23.00	1.291	0.13	0.001	0.001
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	156400	782	open	21.94	23.00	1.276	0.04	0.197	0.251
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	156400	782	open	21.89	23.00	1.291	-0.04	0.198	0.256
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	156400	782	close	23.29	24.00	1.178	0.12	0.003	0.004
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	156400	782	close	23.19	24.00	1.205	-0.04	0.003	0.004
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	156400	782	close	23.29	24.00	1.178	0.07	0.232	0.273
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	156400	782	close	23.19	24.00	1.205	-0.18	0.217	0.261
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	156400	782	close	23.29	24.00	1.178	-0.19	0.003	0.004
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	156400	782	close	23.19	24.00	1.205	0.14	0.003	0.004
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	156400	782	close	23.29	24.00	1.178	-0.08	0.118	0.139
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	156400	782	close	23.19	24.00	1.205	0.07	0.003	0.004
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	156400	782	close	23.29	24.00	1.178	0.07	0.223	0.263
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	156400	782	close	23.19	24.00	1.205	0.03	0.201	0.242
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	156400	782	close	21.94	23.00	1.276	0.04	0.001	0.001
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	156400	782	close	21.89	23.00	1.291	-0.17	0.001	0.001
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	156400	782	close	21.94	23.00	1.276	0.02	0.127	0.162
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	156400	782	close	21.89	23.00	1.291	0.02	0.103	0.133
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	156400	782	close	21.94	23.00	1.276	-0.11	0.087	0.111
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	156400	782	close	21.89	23.00	1.291	-0.11	0.058	0.075
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	156400	782	close	21.94	23.00	1.276	-0.13	0.001	0.001
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	156400	782	close	21.89	23.00	1.291	0.05	0.001	0.001
	FR1 n13	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	156400	782	close	21.94	23.00	1.276	-0.12	0.077	0.098
	FR1 n13	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	156400	782	close	21.89	23.00	1.291	0.08	0.053	0.068
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	158600	793	open	23.43	24.00	1.140	-0.11	0.336	0.383
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 3	158600	793	open	23.39	24.00	1.151	0.14	0.292	0.336
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	158600	793	open	23.43	24.00	1.140	-0.13	0.462	0.527
43	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 3	158600	793	open	23.39	24.00	1.151	0.05	0.477	0.549
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	158600	793	open	23.43	24.00	1.140	-0.05	0.069	0.079
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 3	158600	793	open	23.39	24.00	1.151	0.02	0.070	0.081
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	158600	793	open	23.43	24.00	1.140	0.14	0.228	0.260
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 3	158600	793	open	23.39	24.00	1.151	0.05	0.244	0.281
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	158600	793	open	23.43	24.00	1.140	0.12	0.399	0.455
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 3	158600	793	open	23.39	24.00	1.151	0.02	0.420	0.483
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	158600	793	open	22.04	23.00	1.247	0.04	0.125	0.156



FCC SAR Test Report

Report No. : FA2D0913

	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 3	158600	793	open	21.99	23.00	1.262	-0.13	0.111	0.140
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	158600	793	open	22.04	23.00	1.247	-0.13	0.225	0.281
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	158600	793	open	21.99	23.00	1.262	-0.18	0.170	0.215
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	158600	793	open	22.04	23.00	1.247	0.05	0.100	0.125
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 3	158600	793	open	21.99	23.00	1.262	0.04	0.070	0.088
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	158600	793	open	22.04	23.00	1.247	-0.01	0.001	0.001
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 3	158600	793	open	21.99	23.00	1.262	-0.18	0.001	0.001
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	158600	793	open	22.04	23.00	1.247	-0.1	0.193	0.241
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 3	158600	793	open	21.99	23.00	1.262	0.04	0.146	0.184
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	158600	793	close	23.43	24.00	1.140	0.05	0.001	0.001
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 5	158600	793	close	23.39	24.00	1.151	-0.19	0.001	0.001
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	158600	793	close	23.43	24.00	1.140	0.11	0.464	0.529
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 5	158600	793	close	23.39	24.00	1.151	0.04	0.427	0.491
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	158600	793	close	23.43	24.00	1.140	-0.09	0.001	0.001
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 5	158600	793	close	23.39	24.00	1.151	-0.05	0.001	0.001
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	158600	793	close	23.43	24.00	1.140	-0.12	0.319	0.364
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 5	158600	793	close	23.39	24.00	1.151	0.02	0.299	0.344
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	158600	793	close	23.43	24.00	1.140	0.12	0.334	0.381
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 5	158600	793	close	23.39	24.00	1.151	0.18	0.320	0.368
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	158600	793	close	22.04	23.00	1.247	-0.02	0.001	0.001
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 5	158600	793	close	21.99	23.00	1.262	-0.13	0.001	0.001
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	158600	793	close	22.04	23.00	1.247	0.12	0.137	0.171
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 5	158600	793	close	21.99	23.00	1.262	0.14	0.110	0.139
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	158600	793	close	22.04	23.00	1.247	0.12	0.091	0.114
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 5	158600	793	close	21.99	23.00	1.262	0.15	0.069	0.087
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	158600	793	close	22.04	23.00	1.247	-0.15	0.001	0.001
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 5	158600	793	close	21.99	23.00	1.262	0.06	0.001	0.001
	FR1 n14	10M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	158600	793	close	22.04	23.00	1.247	-0.16	0.083	0.104
	FR1 n14	10M	QPSK	25	14	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 5	158600	793	close	21.99	23.00	1.262	0.06	0.056	0.071
835MHz																			
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	DSI 3	189	836.4	open	28.98	30.00	1.265	0.06	0.389	0.492
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	DSI 3	189	836.4	open	28.98	30.00	1.265	0.14	0.618	0.782
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Side	5mm	Ant 0	DSI 3	189	836.4	open	28.98	30.00	1.265	-0.11	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Side	5mm	Ant 0	DSI 3	189	836.4	open	28.98	30.00	1.265	0.03	0.177	0.224
44	GSM850	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	189	836.4	open	28.98	30.00	1.265	0.08	0.654	0.827
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	128	824.2	open	28.91	30.00	1.285	0.15	0.627	0.806
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	5mm	Ant 0	DSI 3	251	848.8	open	28.86	30.00	1.300	0.14	0.617	0.802
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 1	DSI 3	189	836.4	open	26.91	28.00	1.285	0.08	0.220	0.283
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 3	189	836.4	open	26.91	28.00	1.285	-0.02	0.301	0.387
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 3	128	824.2	open	26.80	28.00	1.318	0.03	0.292	0.385
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 3	251	848.8	open	26.80	28.00	1.318	0.05	0.288	0.380
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Side	5mm	Ant 1	DSI 3	189	836.4	open	26.91	28.00	1.285	0.06	0.102	0.131
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Side	5mm	Ant 1	DSI 3	189	836.4	open	26.91	28.00	1.285	-0.17	0.040	0.051
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	5mm	Ant 1	DSI 3	189	836.4	open	26.91	28.00	1.285	0.08	0.251	0.323
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 0	DSI 5	189	836.4	close	28.98	30.00	1.265	-0.06	0.053	0.067
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	DSI 5	189	836.4	close	28.98	30.00	1.265	-0.07	0.537	0.679
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	DSI 5	128	824.2	close	28.91	30.00	1.285	0.03	0.512	0.658
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 0	DSI 5	251	848.8	close	28.86	30.00	1.300	0.13	0.510	0.663
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Side	5mm	Ant 0	DSI 5	189	836.4	close	28.98	30.00	1.265	0.14	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Side	5mm	Ant 0	DSI 5	189	836.4	close	28.98	30.00	1.265	-0.08	0.343	0.434
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	5mm	Ant 0	DSI 5	189	836.4	close	28.98	30.00	1.265	-0.03	0.358	0.453
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Front	5mm	Ant 1	DSI 5	189	836.4	close	26.91	28.00	1.285	-0.15	0.095	0.122
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 5	189	836.4	close	26.91	28.00	1.285	0.11	0.502	0.645
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 5	128	824.2	close	26.80	28.00	1.318	0.09	0.488	0.643
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Back	5mm	Ant 1	DSI 5	251	848.8	close	26.80	28.00	1.318	0.07	0.483	0.637
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Left Side	5mm	Ant 1	DSI 5	189	836.4	close	26.91	28.00	1.285	0.12	0.220	0.283



FCC SAR Test Report

Report No. : FA2D0913

	GSM850	-	-	-	-	GPRS (3 Tx slots)	Right Side	5mm	Ant 1	DSI 5	189	836.4	close	26.91	28.00	1.285	-0.03	0.001	0.001
	GSM850	-	-	-	-	GPRS (3 Tx slots)	Bottom Side	5mm	Ant 1	DSI 5	189	836.4	close	26.91	28.00	1.285	-0.13	0.334	0.429
45	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 3	4182	836.4	open	22.52	24.00	1.406	0.06	0.476	0.669
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4182	836.4	open	22.52	24.00	1.406	-0.17	0.651	0.915
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4132	826.4	open	22.45	24.00	1.429	0.08	0.528	0.754
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 3	4233	846.6	open	22.46	24.00	1.426	0.06	0.452	0.644
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 3	4182	836.4	open	22.52	24.00	1.406	0.14	0.048	0.067
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 3	4182	836.4	open	22.52	24.00	1.406	0.09	0.243	0.342
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	4182	836.4	open	22.52	24.00	1.406	0.05	0.586	0.824
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	4132	826.4	open	22.45	24.00	1.429	0.02	0.589	0.842
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 3	4233	846.6	open	22.46	24.00	1.426	-0.06	0.420	0.599
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 3	4182	836.4	open	21.23	23.00	1.503	-0.16	0.292	0.439
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 3	4182	836.4	open	21.23	23.00	1.503	-0.14	0.448	0.673
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 3	4132	826.4	open	21.17	23.00	1.524	0.04	0.429	0.654
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 3	4233	846.6	open	21.09	23.00	1.552	0.15	0.411	0.638
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 1	DSI 3	4182	836.4	open	21.23	23.00	1.503	0.06	0.183	0.275
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	DSI 3	4182	836.4	open	21.23	23.00	1.503	-0.13	0.001	0.002
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 3	4182	836.4	open	21.23	23.00	1.503	0.19	0.447	0.672
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 5	4182	836.4	close	22.52	24.00	1.406	0.08	0.001	0.001
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 5	4182	836.4	close	22.52	24.00	1.406	-0.11	0.285	0.401
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 5	4182	836.4	close	22.52	24.00	1.406	-0.15	0.001	0.001
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 5	4182	836.4	close	22.52	24.00	1.406	0.01	0.192	0.270
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 5	4182	836.4	close	22.52	24.00	1.406	0.03	0.302	0.425
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 5	4132	826.4	close	22.45	24.00	1.429	0.06	0.291	0.416
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 5	4233	846.6	close	22.46	24.00	1.426	0.01	0.288	0.411
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 5	4182	836.4	close	21.23	23.00	1.503	0.02	0.001	0.002
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 5	4182	836.4	close	21.23	23.00	1.503	-0.09	0.139	0.209
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 5	4132	826.4	close	21.17	23.00	1.524	0.09	0.122	0.186
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 5	4233	846.6	close	21.09	23.00	1.552	0.13	0.115	0.179
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 1	DSI 5	4182	836.4	close	21.23	23.00	1.503	-0.13	0.061	0.092
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	DSI 5	4182	836.4	close	21.23	23.00	1.503	0.16	0.001	0.002
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 5	4182	836.4	close	21.23	23.00	1.503	0.12	0.094	0.141
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 3	26865	831.5	open	22.59	24.00	1.384	-0.09	0.414	0.573
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 0	DSI 3	26865	831.5	open	22.54	24.00	1.400	0.04	0.397	0.556
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 3	26865	831.5	open	22.59	24.00	1.384	-0.1	0.585	0.809
	LTE Band 5B	10M	QPSK	1	49	-	Back	5mm	Ant 0	DSI 3	20476+20575	831.6+841.5	open	22.44	24.00	1.432	0.03	0.525	0.752
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 0	DSI 3	26865	831.5	open	22.54	24.00	1.400	-0.13	0.523	0.732
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 0	DSI 3	26865	831.5	open	22.36	24.00	1.459	0.06	0.547	0.798
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 3	26865	831.5	open	22.59	24.00	1.384	0.05	0.001	0.001
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 0	DSI 3	26865	831.5	open	22.54	24.00	1.400	-0.12	0.001	0.001
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 3	26865	831.5	open	22.59	24.00	1.384	-0.14	0.166	0.230
	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 0	DSI 3	26865	831.5	open	22.54	24.00	1.400	0.04	0.145	0.203
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 3	26865	831.5	open	22.59	24.00	1.384	0.06	0.411	0.569
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	5mm	Ant 0	DSI 3	26865	831.5	open	22.54	24.00	1.400	0.04	0.378	0.529
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 3	26865	831.5	open	21.38	22.00	1.153	-0.14	0.366	0.422
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 1	DSI 3	26865	831.5	open	21.33	22.00	1.167	0.06	0.309	0.361
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 3	26865	831.5	open	21.38	22.00	1.153	-0.17	0.574	0.662
	LTE Band 5B	10M	QPSK	1	49	-	Back	5mm	Ant 1	DSI 3	20476+20575	831.6+841.5	open	21.02	22.00	1.253	0.06	0.512	0.642
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 1	DSI 3	26865	831.5	open	21.33	22.00	1.167	-0.09	0.467	0.545
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 3	26865	831.5	open	21.38	22.00	1.153	0.08	0.237	0.273
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 1	DSI 3	26865	831.5	open	21.33	22.00	1.167	0.03	0.192	0.224
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 3	26865	831.5	open	21.38	22.00	1.153	0.06	0.067	0.077
	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 1	DSI 3	26865	831.5	open	21.33	22.00	1.167	-0.01	0.054	0.063
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 3	26865	831.5	open	21.38	22.00	1.153	0.05	0.546	0.630
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	5mm	Ant 1	DSI 3	26865	831.5	open	21.33	22.00	1.167	0.04	0.436	0.509
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 2	DSI 3	26865	831.5	open	22.24	23.00	1.191	0.06	0.324	0.386