

FCC SAR Test Report

APPLICANT : Xiaomi Communications Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : Xiaomi
MODEL NAME : XIG04
FCC ID : 2AFZZN60R
STANDARD : FCC 47 CFR Part 2 (2.1093)

We, Sporton International Inc. (Shenzhen), would like to declare that the tested sample has been evaluated in accordance with the test procedures given in 47 CFR Part 2.1093 and FCC KDB and has been in compliance with the applicable technical standards.

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



Approved by: Si Zhang

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People's Republic of China



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	9
4.3 General 5G NR SAR Test and Reporting Considerations	12
5. Proximity Sensor Triggering Test	13
6. RF Exposure Limits	15
6.1 Uncontrolled Environment	15
6.2 Controlled Environment	15
7. Specific Absorption Rate (SAR)	16
7.1 Introduction	16
7.2 SAR Definition	16
8. System Description and Setup	17
8.1 E-Field Probe	18
8.2 Data Acquisition Electronics (DAE)	18
8.3 Phantom	19
8.4 Device Holder	20
9. Measurement Procedures	21
9.1 Spatial Peak SAR Evaluation	21
9.2 Power Reference Measurement	22
9.3 Area Scan	22
9.4 Zoom Scan	23
9.5 Volume Scan Procedures	23
9.6 Power Drift Monitoring	23
10. Test Equipment List	24
11. System Verification	25
11.1 Tissue Simulating Liquids	25
11.2 Tissue Verification	25
11.3 System Performance Check Results	27
12. RF Exposure Positions	29
12.1 Ear and handset reference point	29
12.2 Definition of the cheek position	30
12.3 Definition of the tilt position	31
12.4 Body Worn Accessory	32
12.5 Product Specific 10g SAR Exposure	33
12.6 Wireless Router	33
13. Conducted RF Output Power (Unit: dBm)	34
14. Antenna Location	49
15. SAR Test Results	50
15.1 Head SAR	53
15.2 Hotspot SAR	67
15.3 Body Worn Accessory SAR	79
15.4 Product specific 10g SAR	86
15.5 Repeated SAR Measurement	93
16. Simultaneous Transmission Analysis	94
16.1 Head Exposure Conditions	95
16.2 Hotspot Exposure Conditions	97
16.3 Body-Worn Accessory Exposure Conditions	100
16.4 Product specific 10g SAR Exposure Conditions	101
17. Uncertainty Assessment	104
18. References	105
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	

Revision History

[illegible]

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, XIG04**, are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.79	0.59	0.27	1.59
		GSM1900	1.04	0.88	0.30	
	WCDMA	WCDMA V	0.87	0.57	0.33	
		WCDMA IV	1.08	0.87	0.63	
		WCDMA II	1.08	1.05	0.83	
	LTE	LTE Band 12/17	0.82	0.36	0.21	
		LTE Band 13	1.09	0.52	0.29	
		LTE Band 26/5	1.05	0.57	0.32	
		LTE Band 4	0.26	0.88	0.62	
		LTE Band 2	1.08	1.00	0.85	
		LTE Band 7	0.93	0.85	0.84	
		LTE Band 41/38	1.05	0.94	0.61	
		LTE Band 42	1.09	1.06	0.84	
		5G NR	FR1 n41	1.09	0.70	
	FR1 n77		1.09	0.75	0.97	
FR1 n78	1.08		0.70	0.97		
DTS	WLAN	2.4GHz WLAN	0.96	0.58	0.28	1.59
NII		5GHz WLAN	1.09	0.45	0.38	1.58
DSS	Bluetooth	2.4GHz Bluetooth	0.32	0.22	0.14	1.58
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 IV	2.57			3.67
		WCDMA II	2.58			
	LTE	LTE Band 4	2.57			
		LTE Band 2	2.36			
		LTE Band 7	2.52			
		LTE Band 41/38	1.91			
		LTE Band 42	2.50			
		5G NR	FR1 n41	2.56		
	FR1 n77		2.48			
	FR1 n78		2.32			
NII	WLAN	5GHz WLAN	2.35			3.67
Date of Testing:			2023/5/29 ~ 2023/7/18			
Remark: This device supports LTE B5 / B17 / B38 and B26 / B12 / B41. Since the supported frequency span for LTE B5 / B17 / B38 falls completely within the supports frequency span for LTE 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 B26 / B12 / B41.						

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-SZ	CN1256	421272

Applicant	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

Manufacturer	
Company Name	Xiaomi Communications Co., Ltd.
Address	#019, 9th Floor, Building 6, 33 Xi'erqi Middle Road, Haidian District, Beijing, China, 100085

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 Phone
Brand Name	Xiaomi
Model Name	XIG04
FCC ID	2AFZZN60R
IMEI Code	IMEI 1: 866263060002703 IMEI 2: 866263060002711
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz 5G NR n41 : 2496 MHz ~ 2690 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 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 supported) LTE: QPSK, 16QAM, 64QAM, 256QAM(Downlink Only) 5G NR : CP-OFDM / DFT-s-OFDM, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ax HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/HE20/HE40/HE80 Bluetooth BR/EDR/LE NFC: ASK
HW Version	P2.0
SW Version	MIUI 14
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).
4. The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO 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 Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity). The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table.
8. For WLAN/BT when transmit simultaneous with WWAN, power reduction will be activated to head, Body, hotspot and extremity exposure conditions.
9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
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. 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.
13. 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.
14. For 5G NR EN-DC mode, standalone SAR performed for 5G NR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
15. The device support DBS (Dual Band Simultaneous) function, when the device WLAN 2.4GHz and WLAN 5GHz transmit at the same time the module will limit different output power for simultaneous transmission compliance.
16. The device has two batteries with the same battery capacity, only Manufacturer is different. We only chose battery 1 to perform full SAR testing.
17. There are two samples under test, sample 1 is 8+256G memory & glass back cover, sample 2 is 8+256G memory & PU back cover, according to the difference, so chose sample 1 to perform full test.
18. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.
19. This device has NFC function and the NFC SAR report will be separately submitted.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n77	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
SA	n41	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																																													
FCC ID	2AFZZN60R																																																																												
Equipment Name	Mobile 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 17: 704 MHz ~ 716 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz																																																																												
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 42: 5MHz, 10MHz, 15MHz, 20MHz																																																																												
uplink modulations used	QPSK / 16QAM / 64QAM																																																																												
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	<table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table>							Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3								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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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																																																																						
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 13.																																																																												
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.																																																																												
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 3 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							
	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							
	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							
	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									
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)							
L	23205		779.5		23230		782							
M	23230		782											
H	23255		784.5											
LTE Band 17														
	Bandwidth 5 MHz				Bandwidth 10 MHz									
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)							
L	23755		706.5		23780		709							
M	23790		710		23790		710							
H	23825		713.5		23800		711							
LTE Band 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 38														
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz							
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580	37850	2580	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	38150	2610	38150	2610		

LTE Band 41								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5
M	40620	2593	40620	2593	40620	2593	40620	2593
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680

LTE Band 42								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	42115	3452.5	42140	3455	42165	3457.5	42190	3460
M	42590	3500	42590	3500	42590	3500	42590	3500
H	43065	3547.5	43040	3545	43015	3542.5	42990	3540

<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 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 17			Yes	Yes		
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up

	Antenna	Default	DSI 0	DSI 1	DSI 3	DSI 4
			Receiver on	Sensor on	Sensor off	Hotspot on
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 5	Ant 0	25.5	25.5	25.5	25.5	25.5
LTE Band 26		25.5	25.5	25.5	25.5	25.5
LTE Band 5	Ant 1	25.5	24	25	25.5	24
LTE Band 26		25.5	24	25.5	25.5	24
LTE Band 12	Ant 0	25.5	25.5	25.5	25.5	25.5
LTE Band 17		25	25	25	25	25
LTE Band 12	Ant 1	25.5	25.5	25.5	25.5	25.5
LTE Band 17		25	25	25	25	25
LTE Band 38	Ant 2	25.7	25.7	23.7	25.7	23.7
LTE Band 41		25.7	25.7	24.2	25.7	24.2
LTE Band 38	Ant 4	25.7	22.2	24.2	24.2	22.2
LTE Band 41		25.7	22.2	24.2	24.2	22.2

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n41 : 2496 MHz ~ 2690 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	TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n77	LTE B41
LTE Anchor Bands for n78	LTE B41

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 77 SCS30KHz															
Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649334	3740.01	649668	3745.02	650000	3750
M 656000	3840	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H 664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	662666	3939.99	662332	3934.98	662000	3930

NR Band 78 SCS30KHz															
Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649334	3740.01	649668	3745.02		
M 650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H 652666	3789.99	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	650666	3759.99	650332	3754.98		

For <3450 MHz ~ 3550 MHz >

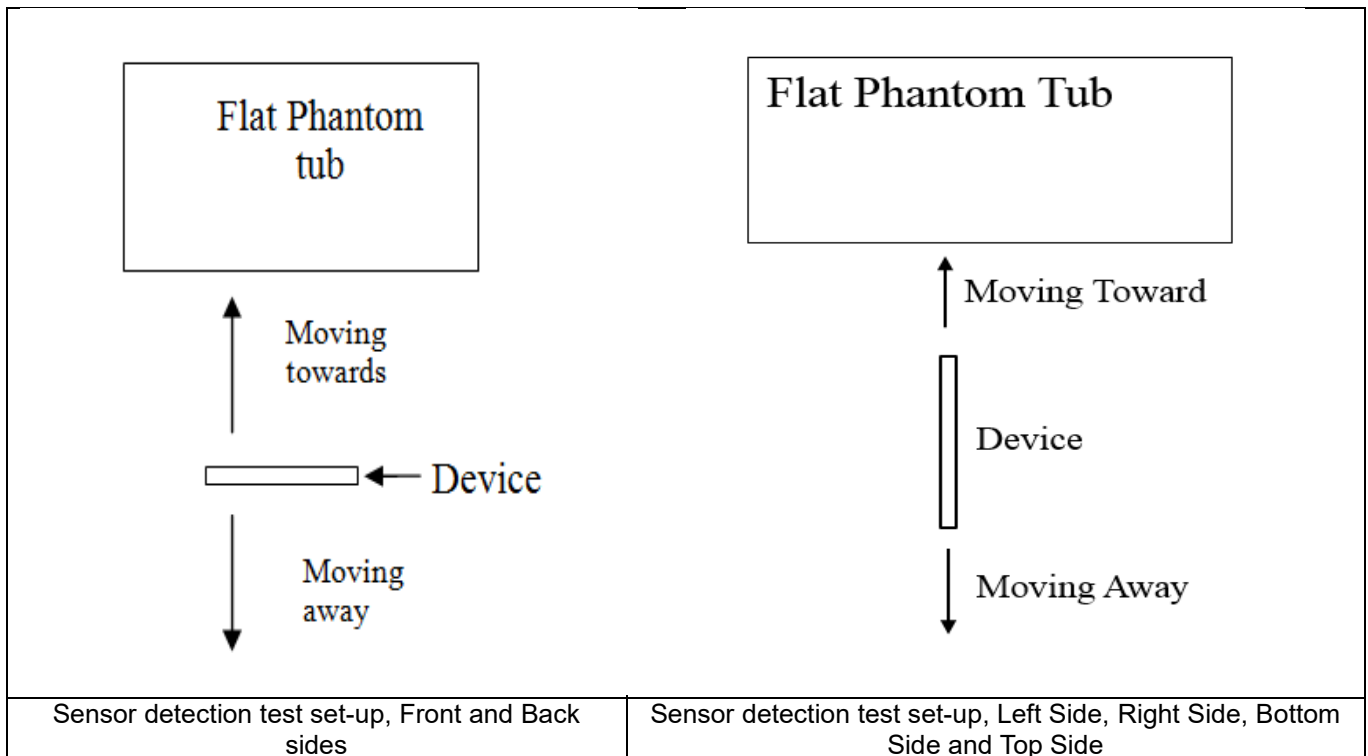
NR Band 77 SCS30KHz															
Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	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
H 636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634000	3510	633666	3504.99		

NR Band 78 SCS30KHz															
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 630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	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
H 636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634000	3510	633666	3504.99		

5. 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 (3980MHz) 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 or finger or hand at the front or back or bottom or left or right or top side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
3. The sensors can use to detect the proximity of the user's body or handheld states at the front or back or bottom or left or right or top side of the device use a detection threshold distance. When front/back/left/right/top/bottom sides of body or handheld condition is detected reduced power will be active. The trigger distance shown in the sections below.
4. 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:



<P-Sensor>

< Sensor for Ant2 >

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	16	16	16	16	16	16	16	16

< Sensor for Ant1/7 >

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	6	6	6	6	6	6	6	6

6. RF Exposure Limits

6.1 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.

6.2 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.

7. Specific Absorption Rate (SAR)

7.1 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.

7.2 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:

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

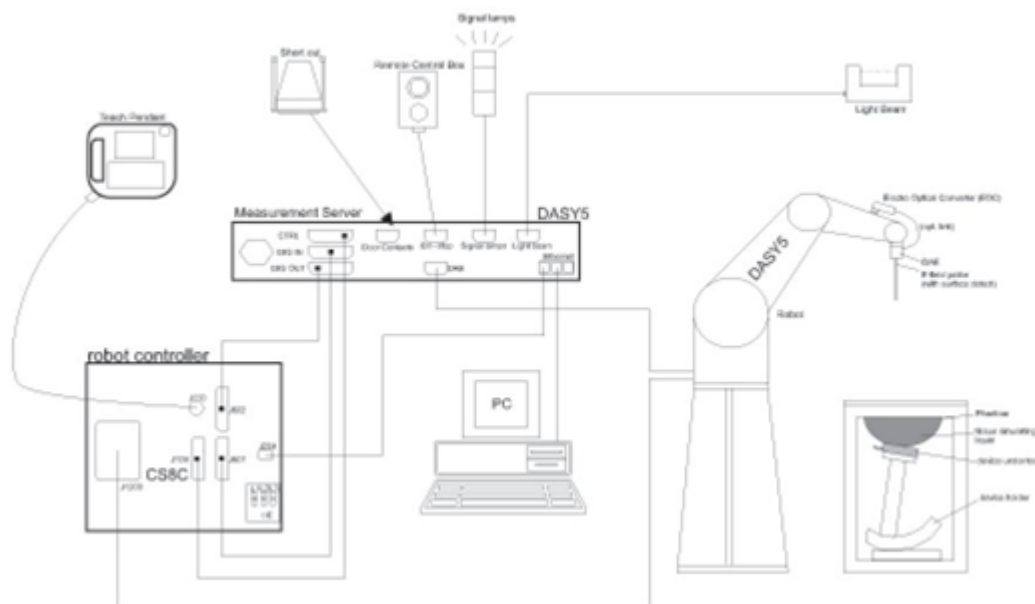
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. 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.

8.1 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 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically <1 μ W/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	

8.2 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

8.3 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.

8.4 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

9. 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

9.1 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

9.2 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.

9.3 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 dB) 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: $\Delta x_{\text{Area}}, \Delta y_{\text{Area}}$	≤ 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.	

9.4 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: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 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: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: 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
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
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.				

9.5 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.

9.6 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.

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 15, 2021	Dec. 14, 2024
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 16, 2024
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 19, 2021	Oct. 18, 2024
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 19, 2024
SPEAG	2450MHz System Validation Kit	D2450V2	924	Sep. 02, 2020	Aug. 31, 2023
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 19, 2024
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 25, 2020	Nov. 23, 2023
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 25, 2020	Nov. 23, 2023
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 18, 2022	Aug. 17, 2023
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 12, 2024
SPEAG	Data Acquisition Electronics	DAE4	1210	Mar. 23, 2023	Mar. 22, 2024
SPEAG	Data Acquisition Electronics	DAE3	360	Dec. 28, 2022	Dec. 27, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	7576	Jul. 28, 2022	Jul. 27, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	Jun. 06, 2023	Jun. 05, 2024
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1500	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201300653	Jul. 07, 2022	Jul. 06, 2023
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 27, 2022	Dec. 26, 2023
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jun. 27, 2022	Jun. 26, 2023
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jul. 05, 2023	Jul. 04, 2024
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 07, 2022	Jul. 06, 2023
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 05, 2023	Jul. 04, 2024
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 17, 2022	Oct. 16, 2023
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Feb. 20, 2023	Feb. 19, 2024
Agilent	Signal Generator	N5181A	MY50145381	Dec. 27, 2022	Dec. 26, 2023
Anritsu	Power Sensor	MA2411B	1306099	Oct. 17, 2022	Oct. 16, 2023
Anritsu	Power Meter	ML2495A	1349001	Oct. 17, 2022	Oct. 16, 2023
Anritsu	Power Sensor	MA2411B	1542004	Dec. 27, 2022	Dec. 26, 2023
Anritsu	Power Meter	ML2495A	1339473	Dec. 27, 2022	Dec. 26, 2023
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 27, 2022	Dec. 26, 2023
R&S	Spectrum Analyzer	FSP7	100818	Jul. 07, 2022	Jul. 06, 2023
R&S	Spectrum Analyzer	FSP7	100818	Jul. 05, 2023	Jul. 04, 2024
TES	Hygrometer	1310	200505600	Jul. 12, 2022	Jul. 11, 2023
TES	Hygrometer	1310	200505600	Jul. 08, 2023	Jul. 07, 2024
Anymetre	Thermo-Hygrometer	JR593	2015030904	Jul. 12, 2022	Jul. 11, 2023
Anymetre	Thermo-Hygrometer	JR593	2015030903	Dec. 30, 2022	Dec. 29, 2023
Anymetre	Thermo-Hygrometer	JR593	2015030904	Jul. 08, 2023	Jul. 07, 2024
SPEAG	Device Holder	N/A	N/A	N/A	N/A
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Weinschel	Attenuator 1	3M-10	N/A	Note 1	
Weinschel	Attenuator 2	3M-20	N/A	Note 1	

Note:

- 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.
- 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.
 - 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.

11. System Verification

11.1 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.

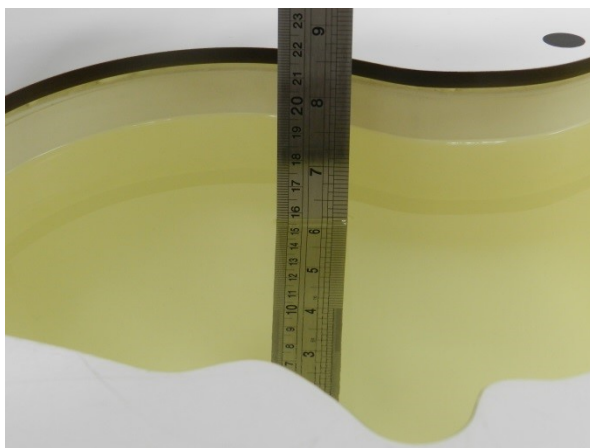


Fig 11.1 Photo of Liquid Height for Head SAR

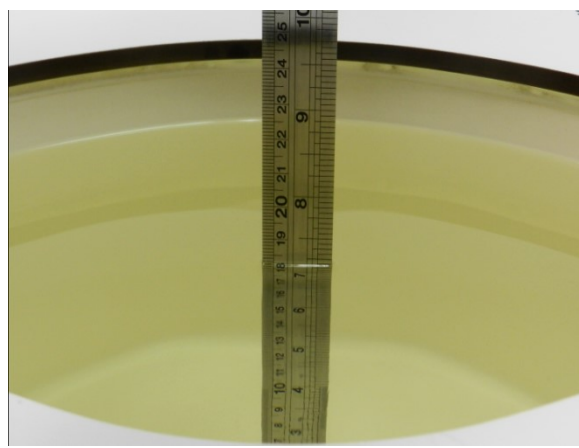


Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	Head	22.3	0.882	40.803	0.89	41.90	-0.90	-2.62	±5	2023/6/1
750	Head	22.5	0.890	40.918	0.89	41.90	0.00	-2.34	±5	2023/6/9
835	Head	22.2	0.915	41.529	0.90	41.50	1.67	0.07	±5	2023/6/6
835	Head	22.3	0.904	41.212	0.90	41.50	0.44	-0.69	±5	2023/6/10
1750	Head	22.5	1.320	38.120	1.37	40.10	-3.65	-4.94	±5	2023/6/4
1750	Head	22.6	1.370	38.214	1.37	40.10	0.00	-4.70	±5	2023/6/12
1900	Head	22.3	1.419	40.346	1.40	40.00	1.36	0.86	±5	2023/5/30
1900	Head	22.4	1.449	40.009	1.40	40.00	3.50	0.02	±5	2023/6/9
2450	Head	22.3	1.829	40.081	1.80	39.20	1.61	2.25	±5	2023/6/2
2450	Head	22.5	1.825	39.664	1.80	39.20	1.39	1.18	±5	2023/6/5
2600	Head	22.6	2.053	37.984	1.96	39.00	4.74	-2.61	±5	2023/5/29
2600	Head	22.2	2.054	38.328	1.96	39.00	4.80	-1.72	±5	2023/6/8
3500	Head	22.4	2.813	39.758	2.91	37.90	-3.33	4.90	±5	2023/6/3
3500	Head	22.3	2.858	38.432	2.91	37.90	-1.79	1.40	±5	2023/6/11
3700	Head	22.6	3.208	37.743	3.12	37.70	2.82	0.11	±5	2023/6/4
3700	Head	22.1	2.967	39.530	3.12	37.70	-4.90	4.85	±5	2023/6/12
3900	Head	22.5	3.199	38.142	3.33	37.51	-3.93	1.68	±5	2023/6/5
3900	Head	22.3	3.217	38.172	3.33	37.51	-3.39	1.76	±5	2023/6/13
5250	Head	22.3	4.580	36.143	4.71	35.95	-2.76	0.54	±5	2023/6/9
5250	Head	22.5	4.576	36.184	4.71	35.95	-2.85	0.65	±5	2023/6/16
5600	Head	22.1	4.961	35.348	5.07	35.50	-2.15	-0.43	±5	2023/6/11
5600	Head	22.6	4.978	35.565	5.07	35.50	-1.81	0.18	±5	2023/6/18
5750	Head	22.4	5.137	34.780	5.22	35.35	-1.59	-1.61	±5	2023/6/13
5750	Head	22.3	5.174	34.830	5.22	35.35	-0.88	-1.47	±5	2023/6/21
2450	Head	22.3	1.809	39.716	1.80	39.20	0.50	1.32	±5	2023/7/9
3500	Head	22.5	2.983	39.228	2.91	37.90	2.51	3.50	±5	2023/7/18
3700	Head	22.4	3.142	38.968	3.12	37.70	0.71	3.36	±5	2023/7/12
3900	Head	22.3	3.315	38.768	3.33	37.51	-0.45	3.35	±5	2023/7/15

11.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2023/6/1	750	Head	250	1099	7576	1210	2.030	8.540	8.12	-4.92
2023/6/9	750	Head	250	1099	7576	1210	2.130	8.540	8.52	-0.23
2023/6/6	835	Head	250	4d162	7576	1210	2.330	9.640	9.32	-3.32
2023/6/10	835	Head	250	4d162	7576	1210	2.270	9.640	9.08	-5.81
2023/6/4	1750	Head	250	1137	7576	1210	8.830	36.500	35.32	-3.23
2023/6/12	1750	Head	250	1137	7576	1210	8.930	36.500	35.72	-2.14
2023/5/30	1900	Head	250	5d182	7576	1210	9.420	39.600	37.68	-4.85
2023/6/9	1900	Head	250	5d182	7576	1210	9.510	39.600	38.04	-3.94
2023/6/2	2450	Head	250	924	7576	1210	12.300	51.400	49.2	-4.28
2023/6/5	2450	Head	250	924	7576	1210	12.500	51.400	50	-2.72
2023/5/29	2600	Head	250	1070	7576	1210	13.500	56.200	54	-3.91
2023/6/8	2600	Head	250	1070	7576	1210	13.800	56.200	55.2	-1.78
2023/6/3	3500	Head	100	1037	7576	1210	6.500	68.000	65	-4.41
2023/6/11	3500	Head	100	1037	7576	1210	6.340	68.000	63.4	-6.76
2023/6/4	3700	Head	100	1008	7576	1210	6.750	67.600	67.5	-0.15
2023/6/12	3700	Head	100	1008	7576	1210	6.630	67.600	66.3	-1.92
2023/6/5	3900	Head	100	1022	7576	1210	6.530	66.400	65.3	-1.66
2023/6/13	3900	Head	100	1022	7576	1210	6.750	66.400	67.5	1.66
2023/6/9	5250	Head	100	1341	7576	1210	7.530	80.700	75.3	-6.69
2023/6/16	5250	Head	100	1341	7576	1210	7.460	80.700	74.6	-7.56
2023/6/11	5600	Head	100	1341	7576	1210	7.930	84.500	79.3	-6.15
2023/6/18	5600	Head	100	1341	7576	1210	7.830	84.500	78.3	-7.34
2023/6/13	5750	Head	100	1341	7576	1210	7.530	80.600	75.3	-6.58
2023/6/21	5750	Head	100	1341	7576	1210	7.650	80.600	76.5	-5.09
2023/7/9	2450	Head	250	924	3819	360	13.100	51.400	52.4	1.95
2023/7/18	3500	Head	100	1037	3819	360	6.880	68.000	68.8	1.18
2023/7/12	3700	Head	100	1008	3819	360	7.300	67.600	73	7.99
2023/7/15	3900	Head	100	1022	3819	360	7.160	66.400	71.6	7.83

<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 (%)
2023/6/1	750	Head	250	1099	7576	1210	1.350	5.650	5.4	-4.42
2023/6/9	750	Head	250	1099	7576	1210	1.420	5.650	5.68	0.53
2023/6/6	835	Head	250	4d162	7576	1210	1.540	6.260	6.16	-1.60
2023/6/10	835	Head	250	4d162	7576	1210	1.470	6.260	5.88	-6.07
2023/6/4	1750	Head	250	1137	7576	1210	4.520	19.200	18.08	-5.83
2023/6/12	1750	Head	250	1137	7576	1210	4.620	19.200	18.48	-3.75
2023/5/30	1900	Head	250	5d182	7576	1210	5.310	20.200	21.24	5.15
2023/6/9	1900	Head	250	5d182	7576	1210	5.370	20.200	21.48	6.34
2023/6/2	2450	Head	250	924	7576	1210	6.350	24.000	25.4	5.83
2023/6/5	2450	Head	250	924	7576	1210	6.370	24.000	25.48	6.17
2023/5/29	2600	Head	250	1070	7576	1210	6.530	24.600	26.12	6.18
2023/6/8	2600	Head	250	1070	7576	1210	6.620	24.600	26.48	7.64
2023/6/3	3500	Head	100	1037	7576	1210	2.450	25.400	24.5	-3.54
2023/6/11	3500	Head	100	1037	7576	1210	2.390	25.400	23.9	-5.91
2023/6/4	3700	Head	100	1008	7576	1210	2.530	24.400	25.3	3.69
2023/6/12	3700	Head	100	1008	7576	1210	2.350	24.400	23.5	-3.69
2023/6/5	3900	Head	100	1022	7576	1210	2.240	23.700	22.4	-5.49
2023/6/13	3900	Head	100	1022	7576	1210	2.270	23.700	22.7	-4.22
2023/6/9	5250	Head	100	1341	7576	1210	2.430	23.100	24.3	5.19
2023/6/16	5250	Head	100	1341	7576	1210	2.330	23.100	23.3	0.87
2023/6/11	5600	Head	100	1341	7576	1210	2.550	24.000	25.5	6.25
2023/6/18	5600	Head	100	1341	7576	1210	2.430	24.000	24.3	1.25
2023/6/13	5750	Head	100	1341	7576	1210	2.330	22.700	23.3	2.64
2023/6/21	5750	Head	100	1341	7576	1210	2.410	22.700	24.1	6.17
2023/7/9	2450	Head	250	924	3819	360	5.860	24.000	23.44	-2.33
2023/7/18	3500	Head	100	1037	3819	360	2.600	25.400	26	2.36
2023/7/12	3700	Head	100	1008	3819	360	2.610	24.400	26.1	6.97
2023/7/15	3900	Head	100	1022	3819	360	2.480	23.700	24.8	4.64

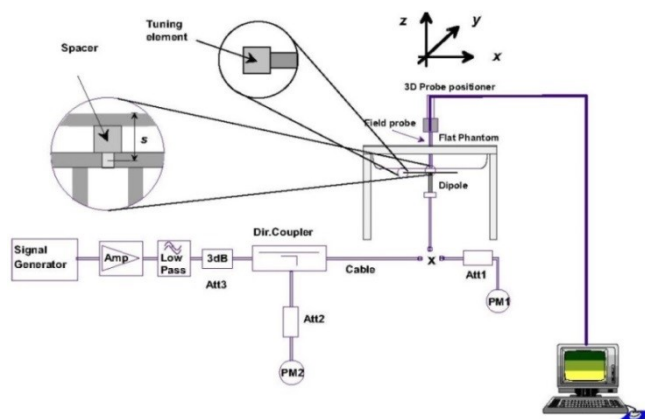


Fig 11.3.1 System Performance Check Setup



Fig 11.3.2 Setup Photo

12. RF Exposure Positions

12.1 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.

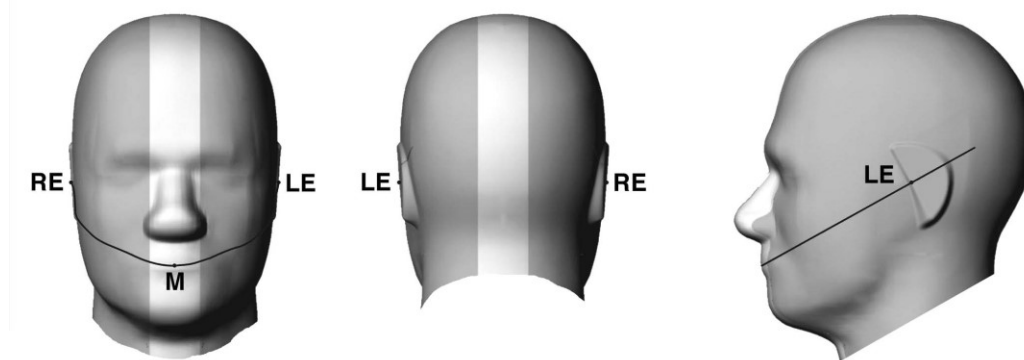


Fig 12.1.1 Front, back, and side views of SAM twin phantom

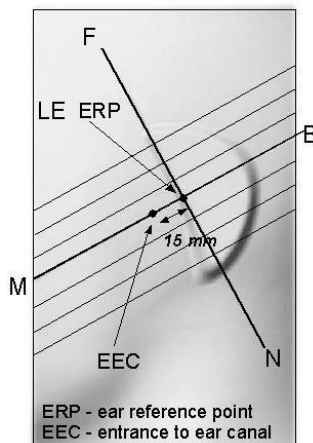


Fig 12.1.2 Close-up side view of phantom showing the ear region.

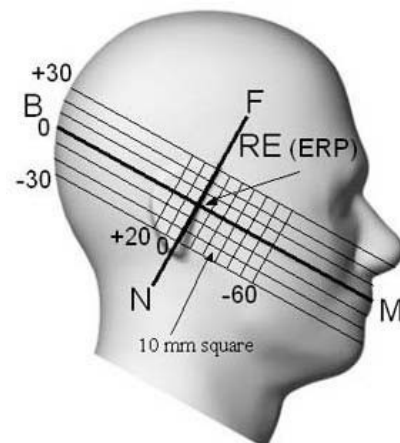


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 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 handset. 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.

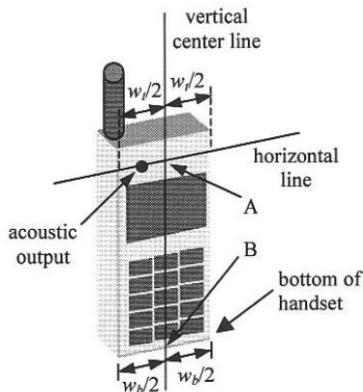


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

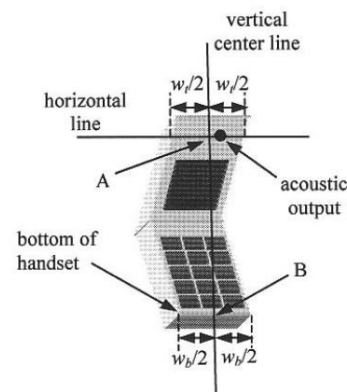


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

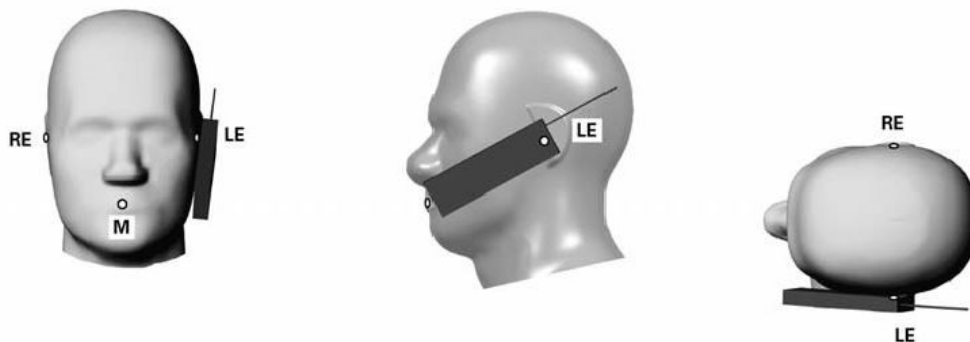


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 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

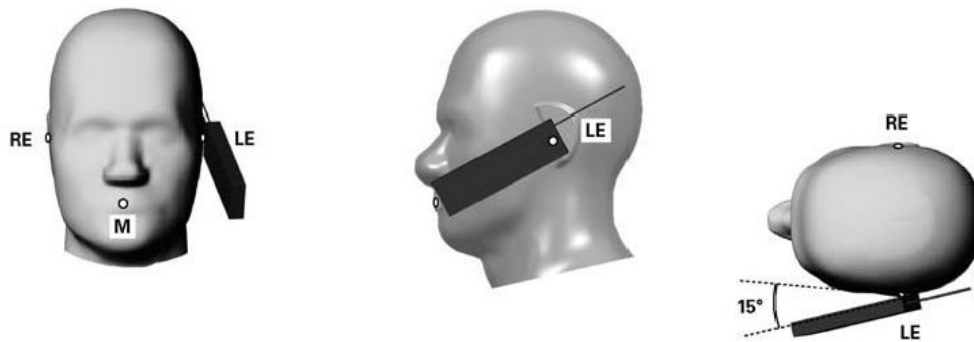


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 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 $> 1.2 \text{ W/kg}$, 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-clip used with different holsters with no other metallic components) only the accessory that dictates the closest spacing to the body is tested.

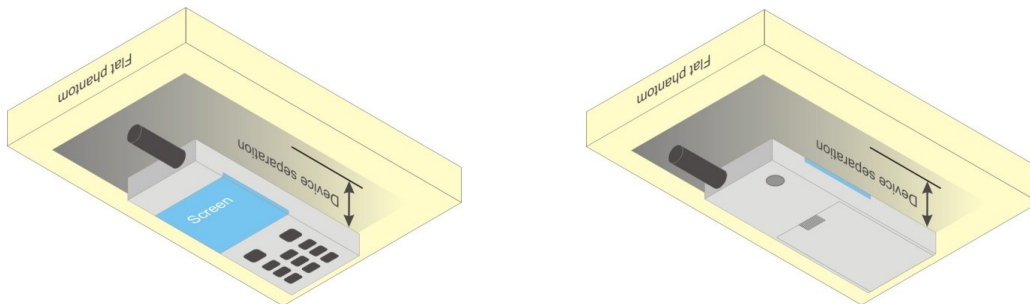


Fig 12.4 Body Worn Position

12.5 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.

12.6 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 ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) 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.

13. 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_o/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 $\beta_o/\beta_d = 12/15$, $\beta_{HS}/\beta_c = 24/15$. For all other combinations of DPCCH, DPCH 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_o/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:

- The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- The RF path losses were compensated into the measurements.
- A call was established between EUT and Base Station with following setting * :
 - Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - 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
 - Set Cell Power = -86 dBm
 - Set Channel Type = 12.2k + HSPA
 - Set UE Target Power
 - Power Ctrl Mode= Alternating bits
 - Set and observe the E-TFCI
 - Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- 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} (Note 1)	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	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, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

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

Note 5: 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.		

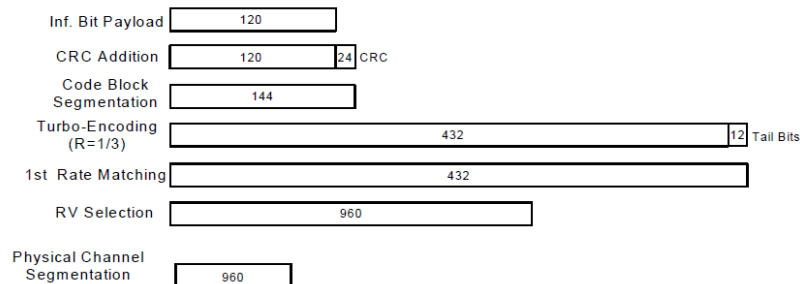


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK) Setup Configuration

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

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

Table C.11.1.4: β values for transmitter characteristics tests with HS-DPCCH and E-DCH with 16QAM

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{fs} = 30/15 * \beta_c$.
 Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
 Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default.
 Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
 Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

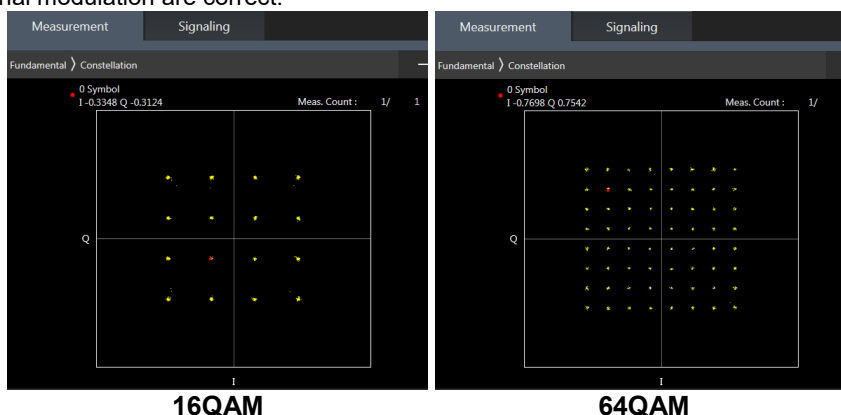
Setup Configuration
<WCDMA Conducted Power>
General Note:

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

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM 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 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 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 B5 / B17 / B38 SAR test was covered by B26 / B12 / B41; 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 should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



<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.

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “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
- Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

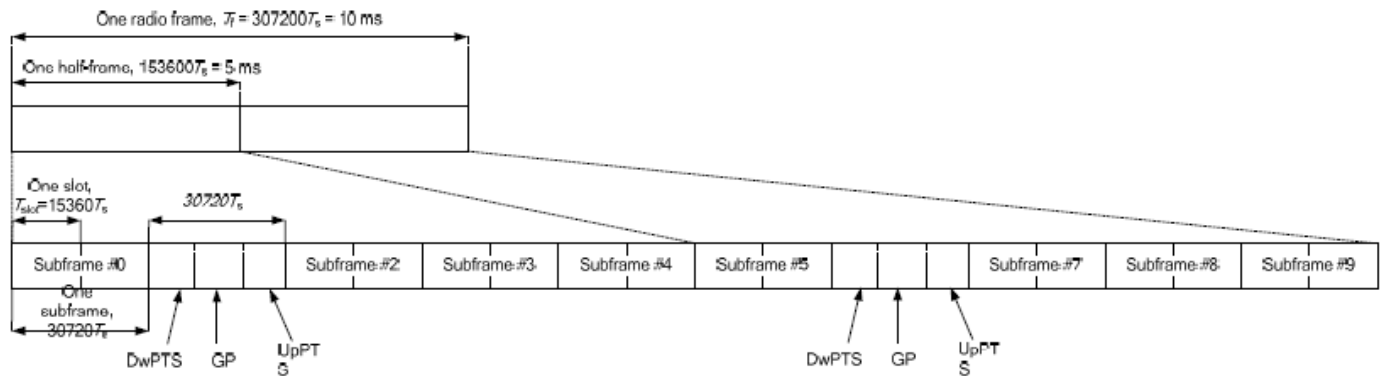


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

- Uplink-downlink configuration: 0. In a half-frame consisted of 5 subframes, uplink operation is in 3 uplink subframes and 1 special subframe.
- special subframe configuration: 5-9 for normal cyclic prefix in downlink, 4-7 for extended cyclic prefix in downlink
- for special subframe with extended cyclic prefix in uplink, the total uplink duty factor in one half-frame is:
 $(3+0.167)/5 = 63.3\%$
- for special subframe with normal cyclic prefix in uplink, the total uplink duty factor in one half-frame is:
 $(3+0.143)/5 = 62.9\%$
- 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.

<LTE Carrier Aggregation>
General Note:

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

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation				4CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	CA_41C	41C		1	CA_41D	41D		1	CA_41C-42C	41C,42C	
2	CA_41A-42A	41A,42A		2	CA_41A-42C	41A,42A		2			
3	CA_42C	42C		3	CA_41C-42A	41A,42A		3			

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 three 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 41/42 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 41/42

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation
Intra-band	Antenna Tx
CA_41C	Ant1/2/3/4
CA_42C	Ant1/5/6/7

<Intra-band>
General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B41/42 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.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n77/n78 is NSA mode.
2. 5G NR n41/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. 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, 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. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
5. 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.
6. 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.
7. 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.
8. 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.
9. For 5G NR EN-DC mode, standalone SAR performed for 5G NR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.

<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				FR1 NR TX			
DC_41A_n77A	Ant 4	Ant 2	Ant 1	Ant 3	Ant 5	Ant 1	Ant 6	Ant 7
DC_41A_n78A	Ant 4	Ant 2	Ant 1	Ant 3	Ant 5	Ant 1	Ant 6	Ant 7

<WLAN Conducted Power>

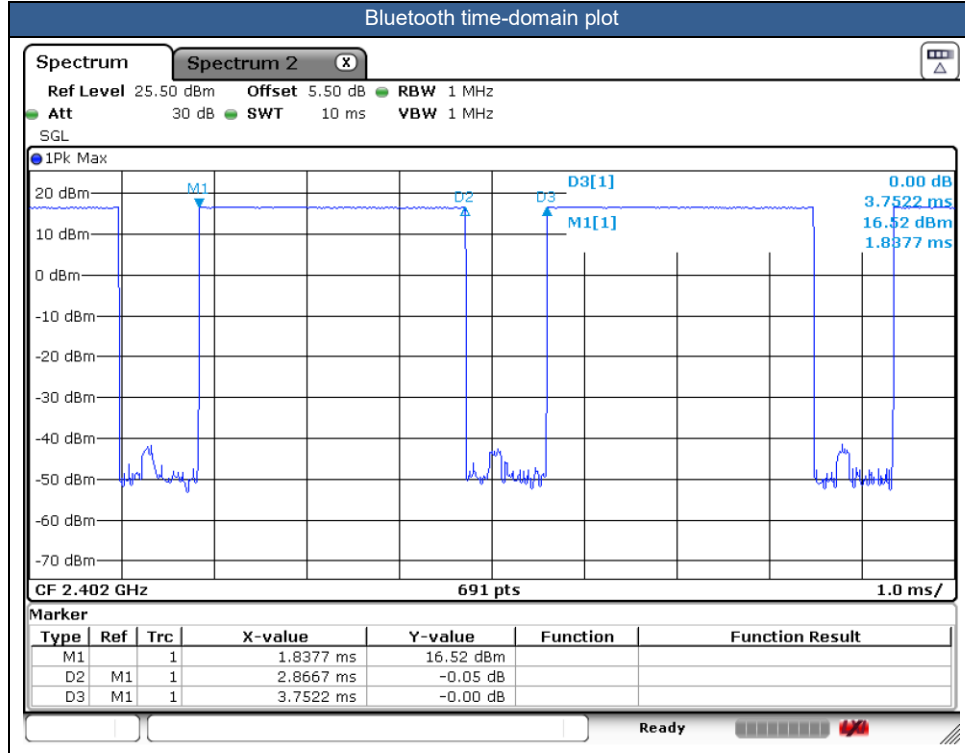
General Note:

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. 802.11 ax supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.
7. The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO antenna mode.
8. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, we tested the WLAN 2.4G SISO antenna 17 and WLAN 5G SISO antenna 18.
9. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO 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 is 76.4 % as following figure, according to Oct. 2016 TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation.





14. Antenna Location

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

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
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 ≥ 0.8 W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity). The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table.
5. For WLAN/BT when transmit simultaneous with WWAN, power reduction will be activated to head, Body, hotspot and extremity exposure conditions.
6. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
7. For 5G NR EN-DC mode, standalone SAR performed for 5G NR NSA band with the maximum power, EN-DC SAR summed EN-DC mode 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
8. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g 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 (for handheld on state, the maximum full power means reduced 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 2/4/7/38/41/42, 5G NR n41/n77/n78, WLAN5.8GHz, therefore product specific 10g SAR is necessary.
 - b. WLAN 5.3/5.5GHz 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.
9. For distance SAR and non-distance SAR, always chose higher SAR to do co-located analysis.
10. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
11. The following table "n/a" in the result means the SAR cube is too small to be detected.

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

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 output power for each RB allocation configuration is $> \text{not } \frac{1}{2}$ 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 SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $> \text{not } \frac{1}{2}$ 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 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 B5 / B17 / B38 SAR test was covered by B26 / B12 / B41; 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. 16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, 16QAM/64QAM/256QAM SAR testing are not required.
 - 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 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 WLAN can transmit in SISO and MIMO antenna mode.
7. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, we tested the WLAN 2.4G SISO antenna 17 and WLAN 5G SISO antenna 18.
8. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

DSI status description:

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

Exposure Condition	DSI	Trigger conditions
Head SAR	DSI 0	Earpiece On
Hotspot Mode SAR	DSI 4	Hotspot On
Body worn/ Extremity Mode SAR	DSI 3	Sensor Off/ receiver off
Body worn/ Extremity Mode SAR	DSI 1	Sensor On



FCC SAR Test Report

Report No. : FA350505-01

	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 0	4182	836.4	21.78	23.50	1.486	-	-	0.01	0.345	0.513
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	4132	826.4	21.72	23.50	1.507	-	-	0.12	0.549	0.827
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	4233	846.6	21.75	23.50	1.496	-	-	0.18	0.575	0.860
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	26865	831.5	24.57	25.50	1.239	-	-	-0.1	0.216	0.268
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	26865	831.5	24.57	25.50	1.239	-	-	0.16	0.112	0.139
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	26865	831.5	24.57	25.50	1.239	-	-	-0.19	0.234	0.290
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	26865	831.5	24.57	25.50	1.239	-	-	-0.09	0.100	0.124
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 0	26865	831.5	23.52	24.50	1.253	-	-	0.16	0.172	0.216
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 0	26865	831.5	23.52	24.50	1.253	-	-	0.1	0.087	0.109
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 0	26865	831.5	23.52	24.50	1.253	-	-	0.08	0.178	0.223
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 0	26865	831.5	23.52	24.50	1.253	-	-	-0.08	0.074	0.093
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	26865	831.5	22.57	24.00	1.390	-	-	-0.09	0.693	0.963
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	26865	831.5	22.57	24.00	1.390	-	-	0.08	0.476	0.662
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	26865	831.5	22.57	24.00	1.390	-	-	0.16	0.395	0.549
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	26865	831.5	22.57	24.00	1.390	-	-	0.1	0.348	0.484
05	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI 0	26865	831.5	22.32	24.00	1.472	-	-	-0.02	0.711	1.047
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI 0	26865	831.5	22.32	24.00	1.472	-	-	-0.13	0.490	0.721
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 0	26865	831.5	22.32	24.00	1.472	-	-	0.05	0.399	0.587
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI 0	26865	831.5	22.32	24.00	1.472	-	-	0.13	0.358	0.527
	LTE Band 26	15M	QPSK	75	0	-	Right Cheek	0mm	Ant 1	DSI 0	26865	831.5	22.26	24.00	1.493	-	-	0.04	0.663	0.990
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	1413	1732.6	17.49	19.00	1.416	-	-	0.07	0.661	0.936
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 0	1413	1732.6	17.49	19.00	1.416	-	-	-0.15	0.394	0.558
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 0	1413	1732.6	17.49	19.00	1.416	-	-	0.19	0.334	0.473
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 0	1413	1732.6	17.49	19.00	1.416	-	-	-0.09	0.379	0.537
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	1312	1712.4	17.43	19.00	1.435	-	-	-0.17	0.685	0.983
06	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	1513	1752.6	17.46	19.00	1.426	-	-	-0.04	0.755	1.076
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	1413	1732.6	24.47	25.00	1.130	-	-	0.11	0.233	0.263
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 0	1413	1732.6	24.47	25.00	1.130	-	-	-0.18	0.080	0.090
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 0	1413	1732.6	24.47	25.00	1.130	-	-	-0.02	0.152	0.172
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 0	1413	1732.6	24.47	25.00	1.130	-	-	-0.11	0.116	0.131
07	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	20175	1732.5	24.92	25.70	1.197	-	-	0.08	0.215	0.257
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	20175	1732.5	24.92	25.70	1.197	-	-	0.11	0.082	0.098
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	20175	1732.5	24.92	25.70	1.197	-	-	-0.04	0.165	0.197
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	20175	1732.5	24.92	25.70	1.197	-	-	-0.09	0.123	0.147
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	20175	1732.5	23.97	24.70	1.183	-	-	-0.12	0.182	0.215
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	20175	1732.5	23.97	24.70	1.183	-	-	0.07	0.073	0.086
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	20175	1732.5	23.97	24.70	1.183	-	-	0.15	0.128	0.151
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	20175	1732.5	23.97	24.70	1.183	-	-	-0.19	0.099	0.117
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	20175	1732.5	24.71	25.50	1.199	-	-	-0.01	0.059	0.071
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 0	20175	1732.5	24.71	25.50	1.199	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	20175	1732.5	24.71	25.50	1.199	-	-	0.01	0.064	0.077
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 0	20175	1732.5	24.71	25.50	1.199	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	20175	1732.5	23.75	24.50	1.189	-	-	0.19	0.044	0.052
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 0	20175	1732.5	23.75	24.50	1.189	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 0	20175	1732.5	23.75	24.50	1.189	-	-	-0.07	0.055	0.065
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 0	20175	1732.5	23.75	24.50	1.189	-	-	-	n/a	n/a
1900MHz																				
08	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 0	661	1880	20.64	22.00	1.368	-	-	-0.14	0.759	1.038
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 0	661	1880	20.64	22.00	1.368	-	-	0.15	0.507	0.693
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 0	661	1880	20.64	22.00	1.368	-	-	0.17	0.249	0.341
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	DSI 0	661	1880	20.64	22.00	1.368	-	-	0.06	0.234	0.320
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 0	512	1850.2	20.60	22.00	1.380	-	-	-0.04	0.720	0.994
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 0	810	1909.8	20.58	22.00	1.387	-	-	0.01	0.735	1.019
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 2	DSI 0	661	1880	24.05	25.00	1.245	-	-	-0.17	0.071	0.088
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 2	DSI 0	661	1880	24.05	25.00	1.245	-	-	0.17	0.048	0.060



FCC SAR Test Report

Report No. : FA350505-01

	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 2	DSI 0	661	1880	24.05	25.00	1.245	-	-	-0.11	0.077	0.096
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 2	DSI 0	661	1880	24.05	25.00	1.245	-	-	-0.17	0.051	0.063
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	9400	1880	17.09	18.50	1.384	-	-	0.04	0.751	1.039
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 0	9400	1880	17.09	18.50	1.384	-	-	0.07	0.448	0.620
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 0	9400	1880	17.09	18.50	1.384	-	-	0.1	0.349	0.483
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 0	9400	1880	17.09	18.50	1.384	-	-	0.15	0.407	0.563
09	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	9262	1852.4	17.05	18.50	1.396	-	-	0.04	0.774	1.081
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	9538	1907.6	17.03	18.50	1.403	-	-	0.12	0.699	0.981
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	9400	1880	24.42	25.00	1.143	-	-	0.09	0.213	0.243
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 0	9400	1880	24.42	25.00	1.143	-	-	-0.15	0.151	0.173
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 0	9400	1880	24.42	25.00	1.143	-	-	-0.02	0.216	0.247
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 0	9400	1880	24.42	25.00	1.143	-	-	0.09	0.152	0.174
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	18900	1880	23.76	25.00	1.330	-	-	-0.18	0.179	0.238
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	18900	1880	23.76	25.00	1.330	-	-	-0.13	0.104	0.138
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	18900	1880	23.76	25.00	1.330	-	-	-0.15	0.190	0.253
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	18900	1880	23.76	25.00	1.330	-	-	0.08	0.120	0.160
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	18900	1880	22.75	24.00	1.334	-	-	0.16	0.135	0.180
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	18900	1880	22.75	24.00	1.334	-	-	0.16	0.073	0.097
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	18900	1880	22.75	24.00	1.334	-	-	0.13	0.151	0.201
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	18900	1880	22.75	24.00	1.334	-	-	0.11	0.096	0.128
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	18900	1880	23.51	24.50	1.256	-	-	0.12	0.670	0.842
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 0	18900	1880	23.51	24.50	1.256	-	-	-0.02	0.127	0.160
10	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	18900	1880	23.51	24.50	1.256	-	-	0.08	0.858	1.078
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 0	18900	1880	23.51	24.50	1.256	-	-	0.18	0.193	0.242
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	18700	1860	23.46	24.50	1.271	-	-	-0.05	0.524	0.666
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	19100	1900	23.38	24.50	1.294	-	-	0.03	0.515	0.667
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	18700	1860	23.46	24.50	1.271	-	-	-0.06	0.743	0.944
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	19100	1900	23.38	24.50	1.294	-	-	-0.13	0.720	0.932
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	18900	1880	22.50	23.50	1.259	-	-	0.06	0.545	0.686
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 0	18900	1880	22.50	23.50	1.259	-	-	0.03	0.117	0.147
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 0	18900	1880	22.50	23.50	1.259	-	-	-0.01	0.668	0.841
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 0	18900	1880	22.50	23.50	1.259	-	-	-0.19	0.176	0.222
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 0	18700	1860	22.45	23.50	1.274	-	-	-0.06	0.607	0.773
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 0	19100	1900	22.41	23.50	1.285	-	-	0.08	0.570	0.733
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 0	18900	1880	22.44	23.50	1.276	-	-	0.05	0.484	0.618
	LTE Band 2	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 4	DSI 0	18900	1880	22.44	23.50	1.276	-	-	0.02	0.535	0.683
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	21100	2535	24.55	25.50	1.245	-	-	0.18	0.167	0.208
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	21100	2535	24.55	25.50	1.245	-	-	-0.11	0.114	0.142
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	21100	2535	24.55	25.50	1.245	-	-	0.03	0.344	0.428
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	21100	2535	24.55	25.50	1.245	-	-	-0.03	0.059	0.073
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	21100	2535	23.66	24.50	1.213	-	-	-0.07	0.137	0.166
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	21100	2535	23.66	24.50	1.213	-	-	0.05	0.086	0.104
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	21100	2535	23.66	24.50	1.213	-	-	-0.06	0.273	0.331
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	21100	2535	23.66	24.50	1.213	-	-	-0.1	0.048	0.058
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	21100	2535	20.27	21.00	1.183	-	-	-0.01	0.699	0.827
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 0	21100	2535	20.27	21.00	1.183	-	-	-0.08	0.123	0.146
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	21100	2535	20.27	21.00	1.183	-	-	0.13	0.473	0.560
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 0	21100	2535	20.27	21.00	1.183	-	-	0.04	0.175	0.207
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	20850	2510	20.18	21.00	1.208	-	-	0.15	0.643	0.777
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	21350	2560	20.25	21.00	1.189	-	-	0.01	0.694	0.825
11	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	21100	2535	20.25	21.00	1.189	-	-	-0.08	0.783	0.931
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 0	21100	2535	20.25	21.00	1.189	-	-	-0.18	0.131	0.156
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 0	21100	2535	20.25	21.00	1.189	-	-	-0.03	0.495	0.588
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 0	21100	2535	20.25	21.00	1.189	-	-	-0.07	0.194	0.231
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	20850	2510	20.15	21.00	1.216	-	-	0.15	0.672	0.817



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	21350	2560	20.19	21.00	1.205	-	-	0.01	0.734	0.884
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 0	21100	2535	20.22	21.00	1.197	-	-	0.03	0.774	0.926
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	40620	2593	20.33	21.00	1.167	62.9	1.006	-0.04	0.684	0.803
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	40620	2593	20.33	21.00	1.167	62.9	1.006	0.1	0.457	0.536
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	40620	2593	20.33	21.00	1.167	62.9	1.006	-0.09	0.254	0.298
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	40620	2593	20.33	21.00	1.167	62.9	1.006	0.12	0.256	0.300
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	39750	2506	20.29	21.00	1.178	62.9	1.006	0.02	0.797	0.944
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	39750+39948	2506+2525.8	19.92	21.00	1.282	62.9	1.006	0.05	0.715	0.922
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	40185	2549.5	20.07	21.00	1.239	62.9	1.006	-0.01	0.623	0.776
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	41055	2636.5	20.17	21.00	1.211	62.9	1.006	0.16	0.477	0.581
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	41490	2680	20.27	21.00	1.183	62.9	1.006	-0.15	0.510	0.607
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	40620	2593	20.31	21.00	1.172	62.9	1.006	-0.05	0.667	0.787
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	40620	2593	20.31	21.00	1.172	62.9	1.006	0.05	0.410	0.483
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 0	40620	2593	20.31	21.00	1.172	62.9	1.006	-0.01	0.241	0.284
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 0	40620	2593	20.31	21.00	1.172	62.9	1.006	0.13	0.261	0.308
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	39750	2506	20.24	21.00	1.191	62.9	1.006	-0.1	0.681	0.816
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	40185	2549.5	20.02	21.00	1.253	62.9	1.006	-0.13	0.566	0.714
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	41055	2636.5	20.11	21.00	1.227	62.9	1.006	0.08	0.458	0.566
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	41490	2680	20.22	21.00	1.197	62.9	1.006	0.02	0.495	0.596
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	DSI 0	40620	2593	20.24	21.00	1.191	62.9	1.006	0.05	0.653	0.783
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	40620	2593	24.75	25.70	1.245	62.9	1.006	-0.18	0.125	0.156
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	40620	2593	24.75	25.70	1.245	62.9	1.006	0.17	0.085	0.106
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	40620	2593	24.75	25.70	1.245	62.9	1.006	-0.14	0.242	0.303
	LTE Band 41C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	40620+40422	2593+2573.2	24.26	25.70	1.393	62.9	1.006	-0.03	0.165	0.231
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	40620	2593	24.75	25.70	1.245	62.9	1.006	0.07	0.049	0.061
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	40620	2593	23.93	24.70	1.194	62.9	1.006	-0.18	0.108	0.130
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	40620	2593	23.93	24.70	1.194	62.9	1.006	-0.11	0.075	0.090
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	40620	2593	23.93	24.70	1.194	62.9	1.006	0.05	0.197	0.237
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	40620	2593	23.93	24.70	1.194	62.9	1.006	0.01	0.040	0.048
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	40620	2593	22.04	23.00	1.247	62.9	1.006	-0.12	0.796	0.999
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 0	40620	2593	22.04	23.00	1.247	62.9	1.006	-0.16	0.249	0.312
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	40620	2593	22.04	23.00	1.247	62.9	1.006	-0.05	0.621	0.779
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 0	40620	2593	22.04	23.00	1.247	62.9	1.006	0.05	0.157	0.197
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	39750	2506	21.93	23.00	1.279	62.9	1.006	0.18	0.700	0.901
12	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	40185	2549.5	22.00	23.00	1.259	62.9	1.006	-0.17	0.832	1.054
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	40185+2549.5+40383	2549.5+2569.3	21.18	23.00	1.521	62.9	1.006	-0.05	0.635	0.971
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	41055	2636.5	21.90	23.00	1.288	62.9	1.006	-0.08	0.662	0.858
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	41490	2680	21.99	23.00	1.262	62.9	1.006	0.17	0.682	0.866
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	39750	2506	21.93	23.00	1.279	62.9	1.006	0.05	0.512	0.659
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	40185	2549.5	22.00	23.00	1.259	62.9	1.006	0.12	0.633	0.802
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	41055	2636.5	21.90	23.00	1.288	62.9	1.006	-0.03	0.554	0.718
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	41490	2680	21.99	23.00	1.262	62.9	1.006	0.09	0.551	0.699
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	40620	2593	21.98	23.00	1.265	62.9	1.006	0.08	0.735	0.935
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 0	40620	2593	21.98	23.00	1.265	62.9	1.006	-0.08	0.238	0.303
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	40620	2593	21.98	23.00	1.265	62.9	1.006	0.12	0.714	0.908
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 0	40620	2593	21.98	23.00	1.265	62.9	1.006	0.12	0.159	0.202
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	39750	2506	21.86	23.00	1.300	62.9	1.006	0.18	0.732	0.957
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	40185	2549.5	21.95	23.00	1.274	62.9	1.006	-0.17	0.754	0.966
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	41055	2636.5	21.92	23.00	1.282	62.9	1.006	-0.08	0.684	0.882
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	41490	2680	21.97	23.00	1.268	62.9	1.006	0.17	0.711	0.907
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	39750	2506	21.86	23.00	1.300	62.9	1.006	0.11	0.531	0.695
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	40185	2549.5	21.95	23.00	1.274	62.9	1.006	-0.05	0.598	0.766
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	41055	2636.5	21.92	23.00	1.282	62.9	1.006	0.02	0.523	0.675
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	41490	2680	21.97	23.00	1.268	62.9	1.006	0.09	0.518	0.661
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	DSI 0	40620	2593	21.95	23.00	1.274	62.9	1.006	0.03	0.720	0.922



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 3	DSI 0	40620	2593	21.95	23.00	1.274	62.9	1.006	0.09	0.512	0.656
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	40620	2593	21.52	22.20	1.169	62.9	1.006	0.08	0.868	1.021
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	40620+ 40422	2593+ 2573.2	21.04	22.20	1.306	62.9	1.006	0.06	0.519	0.682
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 0	40620	2593	21.52	22.20	1.169	62.9	1.006	0.05	0.057	0.067
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	40620	2593	21.52	22.20	1.169	62.9	1.006	-0.04	0.385	0.453
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 0	40620	2593	21.52	22.20	1.169	62.9	1.006	0.09	0.159	0.187
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	39750	2506	21.34	22.20	1.219	62.9	1.006	-0.12	0.497	0.609
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	40185	2549.5	21.48	22.20	1.180	62.9	1.006	-0.08	0.626	0.743
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	41055	2636.5	21.45	22.20	1.189	62.9	1.006	-0.06	0.787	0.941
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 0	41490	2680	21.29	22.20	1.233	62.9	1.006	-0.04	0.742	0.920
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	40620	2593	21.50	22.20	1.175	62.9	1.006	-0.03	0.855	1.011
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 0	40620	2593	21.50	22.20	1.175	62.9	1.006	-0.06	0.110	0.130
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 0	40620	2593	21.50	22.20	1.175	62.9	1.006	0.02	0.393	0.465
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 0	40620	2593	21.50	22.20	1.175	62.9	1.006	-0.18	0.157	0.186
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	39750	2506	21.27	22.20	1.239	62.9	1.006	0.14	0.547	0.682
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	40185	2549.5	21.45	22.20	1.189	62.9	1.006	0.07	0.626	0.748
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	41055	2636.5	21.43	22.20	1.194	62.9	1.006	0.07	0.788	0.947
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 0	41490	2680	21.21	22.20	1.256	62.9	1.006	-0.06	0.802	1.013
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 0	40620	2593	21.47	22.20	1.183	62.9	1.006	0.03	0.647	0.770
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 1	DSI 0	518598	2592.99	17.03	18.50	1.403	-	-	0.07	0.719	1.009
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 1	DSI 0	518598	2592.99	17.03	18.50	1.403	-	-	-0.15	0.476	0.668
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 1	DSI 0	518598	2592.99	17.03	18.50	1.403	-	-	0.11	0.253	0.355
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 1	DSI 0	518598	2592.99	17.03	18.50	1.403	-	-	-0.17	0.261	0.366
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 1	DSI 0	518598	2592.99	16.96	18.50	1.426	-	-	-0.1	0.688	0.981
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 1	DSI 0	518598	2592.99	16.96	18.50	1.426	-	-	0.18	0.431	0.614
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 1	DSI 0	518598	2592.99	16.96	18.50	1.426	-	-	0.19	0.239	0.341
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 1	DSI 0	518598	2592.99	16.96	18.50	1.426	-	-	0.07	0.248	0.354
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 1	DSI 0	518598	2592.99	16.89	18.50	1.449	-	-	-0.1	0.643	0.932
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 1	DSI 0	518598	2592.99	16.89	18.50	1.449	-	-	-0.05	0.457	0.662
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	518598	2592.99	24.61	25.70	1.285	-	-	0.04	0.054	0.069
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	518598	2592.99	24.61	25.70	1.285	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	518598	2592.99	24.61	25.70	1.285	-	-	0.08	0.089	0.114
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	518598	2592.99	24.61	25.70	1.285	-	-	0.09	0.036	0.046
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	518598	2592.99	24.58	25.70	1.294	-	-	-0.12	0.051	0.066
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	518598	2592.99	24.58	25.70	1.294	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	518598	2592.99	24.58	25.70	1.294	-	-	-0.16	0.084	0.109
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	518598	2592.99	24.58	25.70	1.294	-	-	0.08	0.033	0.043
13	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 0	518598	2592.99	19.61	21.00	1.377	-	-	-0.11	0.790	1.088
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI 0	518598	2592.99	19.61	21.00	1.377	-	-	-0.08	0.263	0.362
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI 0	518598	2592.99	19.61	21.00	1.377	-	-	0.08	0.606	0.835
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI 0	518598	2592.99	19.61	21.00	1.377	-	-	-0.01	0.148	0.204
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 0	518598	2592.99	19.54	21.00	1.400	-	-	-0.03	0.647	0.906
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI 0	518598	2592.99	19.54	21.00	1.400	-	-	-0.07	0.201	0.281
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI 0	518598	2592.99	19.54	21.00	1.400	-	-	0.12	0.518	0.725
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI 0	518598	2592.99	19.54	21.00	1.400	-	-	-0.19	0.101	0.141
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 0	518598	2592.99	19.50	21.00	1.413	-	-	0.12	0.634	0.896
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 3	DSI 0	518598	2592.99	19.50	21.00	1.413	-	-	0.14	0.495	0.699
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	518598	2592.99	18.87	19.70	1.211	-	-	-0.01	0.735	0.890
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	518598	2592.99	18.87	19.70	1.211	-	-	-0.02	0.100	0.121
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	518598	2592.99	18.87	19.70	1.211	-	-	-0.03	0.370	0.448
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	518598	2592.99	18.87	19.70	1.211	-	-	0.02	0.176	0.213
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	518598	2592.99	18.78	19.70	1.236	-	-	-0.09	0.876	1.083
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	518598	2592.99	18.78	19.70	1.236	-	-	-0.16	0.098	0.121
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	518598	2592.99	18.78	19.70	1.236	-	-	-0.06	0.318	0.393
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	518598	2592.99	18.78	19.70	1.236	-	-	-0.11	0.154	0.190
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	518598	2592.99	18.73	19.70	1.250	-	-	-0.03	0.721	0.901



FCC SAR Test Report

Report No. : FA350505-01

3000-4000MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	42590	3500	19.76	21.00	1.330	62.9	1.006	-0.07	0.530	0.709
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	42590	3500	19.76	21.00	1.330	62.9	1.006	0.04	0.735	0.984
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	42590	3500	19.76	21.00	1.330	62.9	1.006	-0.04	0.310	0.415
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	42590	3500	19.76	21.00	1.330	62.9	1.006	-0.12	0.384	0.514
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	42190	3460	19.67	21.00	1.358	62.9	1.006	0.03	0.487	0.665
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	42990	3540	19.75	21.00	1.334	62.9	1.006	0.02	0.513	0.688
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	42190	3460	19.67	21.00	1.358	62.9	1.006	-0.07	0.685	0.936
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	42990	3540	19.75	21.00	1.334	62.9	1.006	0.12	0.715	0.959
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	42590	3500	19.75	21.00	1.334	62.9	1.006	0.02	0.556	0.746
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	42590	3500	19.75	21.00	1.334	62.9	1.006	-0.02	0.799	1.072
	LTE Band 42C	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	42590+ 42788	3500+ 3519.8	19.84	21.00	1.306	62.9	1.006	-0.02	0.735	0.966
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 0	42590	3500	19.75	21.00	1.334	62.9	1.006	-0.06	0.329	0.441
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 0	42590	3500	19.75	21.00	1.334	62.9	1.006	-0.04	0.337	0.452
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	42190	3460	19.63	21.00	1.371	62.9	1.006	0.05	0.502	0.692
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	42990	3540	19.73	21.00	1.340	62.9	1.006	0.04	0.537	0.724
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	42190	3460	19.63	21.00	1.371	62.9	1.006	0.15	0.664	0.916
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	42990	3540	19.73	21.00	1.340	62.9	1.006	-0.03	0.745	1.004
	LTE Band 42	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	DSI 0	42590	3500	19.65	21.00	1.365	62.9	1.006	0.07	0.494	0.678
	LTE Band 42	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 0	42590	3500	19.65	21.00	1.365	62.9	1.006	0.15	0.735	1.009
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 0	42590	3500	19.81	20.50	1.172	62.9	1.006	-0.08	0.294	0.347
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 0	42590	3500	19.81	20.50	1.172	62.9	1.006	0.03	0.411	0.485
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 0	42590	3500	19.81	20.50	1.172	62.9	1.006	-0.02	0.555	0.654
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 0	42590	3500	19.81	20.50	1.172	62.9	1.006	0.14	0.823	0.971
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 0	42190	3460	19.65	20.50	1.216	62.9	1.006	0.07	0.567	0.694
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 0	42990	3540	19.75	20.50	1.189	62.9	1.006	0.1	0.534	0.638
14	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 0	42190	3460	19.65	20.50	1.216	62.9	1.006	0.01	0.894	1.094
	LTE Band 42C	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 0	42190+ 42388	3460+ 3479.8	19.25	20.50	1.334	62.9	1.006	0.05	0.811	1.088
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 0	42990	3540	19.75	20.50	1.189	62.9	1.006	0.01	0.658	0.787
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 0	42590	3500	19.75	20.50	1.189	62.9	1.006	0.09	0.266	0.318
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 0	42590	3500	19.75	20.50	1.189	62.9	1.006	-0.04	0.401	0.479
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 0	42590	3500	19.75	20.50	1.189	62.9	1.006	0.01	0.531	0.635
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 0	42590	3500	19.75	20.50	1.189	62.9	1.006	-0.04	0.746	0.892
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 0	42190	3460	19.59	20.50	1.233	62.9	1.006	0.01	0.547	0.679
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 0	42990	3540	19.71	20.50	1.199	62.9	1.006	-0.08	0.521	0.629
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 0	42190	3460	19.59	20.50	1.233	62.9	1.006	0.02	0.766	0.950
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 0	42990	3540	19.71	20.50	1.199	62.9	1.006	0.07	0.715	0.863
	LTE Band 42	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	DSI 0	42590	3500	19.66	20.50	1.213	62.9	1.006	0.02	0.543	0.663
	LTE Band 42	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 5	DSI 0	42590	3500	19.66	20.50	1.213	62.9	1.006	0.04	0.750	0.916
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	DSI 0	42590	3500	16.22	17.50	1.343	62.9	1.006	0.03	0.165	0.223
	LTE Band 42	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	DSI 0	42590	3500	16.22	17.50	1.343	62.9	1.006	0.05	0.110	0.149
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 0	42590	3500	16.22	17.50	1.343	62.9	1.006	-0.13	0.701	0.947
	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	DSI 0	42590	3500	16.22	17.50	1.343	62.9	1.006	0.04	0.288	0.389
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 0	42190	3460	15.98	17.50	1.419	62.9	1.006	-0.06	0.643	0.918
	LTE Band 42	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	DSI 0	42990	3540	16.19	17.50	1.352	62.9	1.006	0.14	0.754	1.026
	LTE Band 42	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	DSI 0	42590	3500	16.19	17.50	1.352	62.9	1.006	-0.14	0.110	0.150
	LTE Band 42	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	DSI 0	42590	3500	16.19	17.50	1.352	62.9	1.006	-0.05	0.093	0.126
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 0	42590	3500	16.19	17.50	1.352	62.9	1.006	-0.08	0.710	0.966
	LTE Band 42	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	DSI 0	42590	3500	16.19	17.50	1.352	62.9	1.006	0.05	0.228	0.310
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 0	42190	3460	15.95	17.50	1.429	62.9	1.006	-0.15	0.654	0.940
	LTE Band 42	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 0	42990	3540	16.17	17.50	1.358	62.9	1.006	-0.15	0.792	1.082
	LTE Band 42C	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	DSI 0	42990+ 42792	3540+ 2520.2	15.92	17.50	1.439	62.9	1.006	-0.03	0.523	0.757
	LTE Band 42	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 6	DSI 0	42590	3500	15.98	17.50	1.419	62.9	1.006	0.12	0.754	1.076
	LTE Band 42	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	DSI 0	42590	3500	24.48	25.50	1.265	62.9	1.006	0.11	0.432	0.550
	LTE Band 42C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	DSI 0	42590+ 42788	3500+ 3519.8	23.56	25.50	1.563	62.9	1.006	-0.02	0.348	0.547



FCC SAR Test Report

Report No. : FA350505-01

FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.36	18.00	1.459	-	-	0.06	0.411	0.600
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.36	18.00	1.459	-	-	-0.12	0.563	0.821
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.36	18.00	1.459	-	-	-0.11	0.647	0.944
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.33	18.00	1.469	-	-	0.05	0.352	0.517
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.33	18.00	1.469	-	-	0.11	0.452	0.664
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.33	18.00	1.469	-	-	0.06	0.654	0.961
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.33	18.00	1.469	-	-	0.08	0.721	1.059
FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.24	18.00	1.500	-	-	0.02	0.434	0.651
FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.24	18.00	1.500	-	-	-0.09	0.632	0.948
FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.24	18.00	1.500	-	-	-0.13	0.665	0.997
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	650000	3750	16.57	18.00	1.390	-	-	0.19	0.113	0.157
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	650000	3750	16.57	18.00	1.390	-	-	-0.06	0.089	0.124
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	650000	3750	16.57	18.00	1.390	-	-	0.16	0.658	0.915
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	650000	3750	16.57	18.00	1.390	-	-	0.07	0.264	0.367
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	650000	3750	16.53	18.00	1.403	-	-	0.09	0.126	0.177
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	650000	3750	16.53	18.00	1.403	-	-	0.12	0.100	0.140
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	650000	3750	16.53	18.00	1.403	-	-	0.15	0.620	0.870
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	650000	3750	16.53	18.00	1.403	-	-	-0.03	0.290	0.407
FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	650000	3750	16.50	18.00	1.413	-	-	0.08	0.606	0.856
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.56	18.00	1.393	-	-	-0.16	0.145	0.202
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.56	18.00	1.393	-	-	0.17	0.113	0.157
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.56	18.00	1.393	-	-	0.16	0.610	0.850
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.56	18.00	1.393	-	-	0.15	0.236	0.329
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.54	18.00	1.400	-	-	0.14	0.120	0.168
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.54	18.00	1.400	-	-	0.09	0.090	0.126
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.54	18.00	1.400	-	-	-0.07	0.676	0.946
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.54	18.00	1.400	-	-	0.14	0.270	0.378
FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.52	18.00	1.406	-	-	0.05	0.615	0.865
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 7	DSI 0	650000	3750	23.78	25.50	1.486	-	-	0.15	0.318	0.473
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 7	DSI 0	650000	3750	23.78	25.50	1.486	-	-	-0.11	0.069	0.103
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 7	DSI 0	650000	3750	23.78	25.50	1.486	-	-	-0.12	0.137	0.204
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 7	DSI 0	650000	3750	23.78	25.50	1.486	-	-	-0.11	0.039	0.058
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	DSI 0	650000	3750	23.64	25.50	1.535	-	-	0.13	0.295	0.453
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	DSI 0	650000	3750	23.64	25.50	1.535	-	-	0.06	0.064	0.098
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	DSI 0	650000	3750	23.64	25.50	1.535	-	-	-0.09	0.125	0.192
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	DSI 0	650000	3750	23.64	25.50	1.535	-	-	0.11	0.035	0.054
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 7	DSI 0	633332	3499.98	23.09	24.50	1.384	-	-	-0.07	0.515	0.713
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 7	DSI 0	633332	3499.98	23.09	24.50	1.384	-	-	-0.09	0.103	0.143
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 7	DSI 0	633332	3499.98	23.09	24.50	1.384	-	-	0.07	0.253	0.350
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 7	DSI 0	633332	3499.98	23.09	24.50	1.384	-	-	0.04	0.062	0.086
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	DSI 0	633332	3499.98	23.06	24.50	1.393	-	-	0.06	0.477	0.665
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	DSI 0	633332	3499.98	23.06	24.50	1.393	-	-	-0.16	0.095	0.132
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	DSI 0	633332	3499.98	23.06	24.50	1.393	-	-	0.07	0.236	0.329
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	DSI 0	633332	3499.98	23.06	24.50	1.393	-	-	0.06	0.060	0.084



FCC SAR Test Report

Report No. : FA350505-01

	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+18	Simultaneous	138	5690	12.65	14.00	1.364	88.14	1.135	0.06	0.074	0.115
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+18	Simultaneous	138	5690	12.65	14.00	1.364	88.14	1.135	0.18	0.085	0.132
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+18	Simultaneous	138	5690	12.65	14.00	1.364	88.14	1.135	-0.1	0.212	0.328
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Simultaneous	138	5690	12.65	14.00	1.364	88.14	1.135	0.09	0.237	0.367
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 18	DBS_Standalone	122	5610	13.12	15.00	1.542	88.14	1.135	-0.05	0.172	0.301
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 18	DBS_Standalone	122	5610	13.12	15.00	1.542	88.14	1.135	-0.18	0.082	0.143
20	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	DBS_Standalone	122	5610	13.12	15.00	1.542	88.14	1.135	0.09	0.613	1.073
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 18	DBS_Standalone	122	5610	13.12	15.00	1.542	88.14	1.135	0.12	0.199	0.348
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	DBS_Standalone	138	5690	13.09	15.00	1.552	88.14	1.135	0.03	0.601	1.059
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 18	DBS_Simultaneous	122	5610	8.26	10.00	1.493	88.14	1.135	-0.1	0.043	0.073
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 18	DBS_Simultaneous	122	5610	8.26	10.00	1.493	88.14	1.135	0.18	0.021	0.036
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	DBS_Simultaneous	122	5610	8.26	10.00	1.493	88.14	1.135	-0.13	0.116	0.197
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 18	DBS_Simultaneous	122	5610	8.26	10.00	1.493	88.14	1.135	0.15	0.050	0.085
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+18	Standalone	155	5775	16.05	17.50	1.396	88.14	1.135	0.07	0.190	0.301
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+18	Standalone	155	5775	16.05	17.50	1.396	88.14	1.135	-0.06	0.189	0.300
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+18	Standalone	155	5775	16.05	17.50	1.396	88.14	1.135	-0.06	0.406	0.643
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Standalone	155	5775	16.05	17.50	1.396	88.14	1.135	0.06	0.625	0.990
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+18	Simultaneous	155	5775	13.22	14.50	1.343	88.14	1.135	0.14	0.085	0.130
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+18	Simultaneous	155	5775	13.22	14.50	1.343	88.14	1.135	0.15	0.084	0.128
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+18	Simultaneous	155	5775	13.22	14.50	1.343	88.14	1.135	-0.09	0.181	0.276
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+18	Simultaneous	155	5775	13.22	14.50	1.343	88.14	1.135	-0.04	0.243	0.370
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 18	DBS_Standalone	155	5775	15.82	17.50	1.472	88.14	1.135	0.04	0.216	0.361
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 18	DBS_Standalone	155	5775	15.82	17.50	1.472	88.14	1.135	-0.15	0.105	0.175
21	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	DBS_Standalone	155	5775	15.82	17.50	1.472	88.14	1.135	0.13	0.650	1.086
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 18	DBS_Standalone	155	5775	15.82	17.50	1.472	88.14	1.135	0.09	0.226	0.378
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 18	DBS_Simultaneous	155	5775	8.87	10.50	1.455	88.14	1.135	-0.16	0.043	0.071
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 18	DBS_Simultaneous	155	5775	8.87	10.50	1.455	88.14	1.135	0.09	0.021	0.035
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 18	DBS_Simultaneous	155	5775	8.87	10.50	1.455	88.14	1.135	-0.11	0.130	0.215
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 18	DBS_Simultaneous	155	5775	8.87	10.50	1.455	88.14	1.135	0.03	0.045	0.074



15.2 Hotspot 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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
22	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	23095	707.5	24.36	25.50	1.300	-	-	-0.04	0.276	0.359
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	23095	707.5	24.36	25.50	1.300	-	-	0.07	0.249	0.324
	LTE Band 12	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	23095	707.5	24.36	25.50	1.300	-	-	0.15	0.186	0.242
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	23095	707.5	24.36	25.50	1.300	-	-	0.08	0.143	0.186
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 4	23095	707.5	23.31	24.50	1.315	-	-	0.1	0.213	0.280
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 4	23095	707.5	23.31	24.50	1.315	-	-	-0.09	0.201	0.264
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 4	23095	707.5	23.31	24.50	1.315	-	-	-0.05	0.139	0.183
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 4	23095	707.5	23.31	24.50	1.315	-	-	0.13	0.103	0.135
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	23095	707.5	23.65	25.50	1.531	-	-	0.02	0.102	0.156
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	23095	707.5	23.65	25.50	1.531	-	-	-0.14	0.142	0.217
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	23095	707.5	23.65	25.50	1.531	-	-	0.11	0.230	0.352
	LTE Band 12	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	23095	707.5	23.65	25.50	1.531	-	-	-0.02	0.114	0.175
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 4	23095	707.5	22.60	24.50	1.549	-	-	-0.13	0.088	0.136
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 4	23095	707.5	22.60	24.50	1.549	-	-	-0.09	0.122	0.189
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 4	23095	707.5	22.60	24.50	1.549	-	-	-0.12	0.195	0.302
	LTE Band 12	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	DSI 4	23095	707.5	22.60	24.50	1.549	-	-	-0.06	0.109	0.169
23	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	23230	782	24.51	25.50	1.256	-	-	-0.01	0.413	0.519
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	23230	782	24.51	25.50	1.256	-	-	0.13	0.321	0.403
	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	23230	782	24.51	25.50	1.256	-	-	-0.02	0.154	0.193
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	23230	782	24.51	25.50	1.256	-	-	-0.08	0.200	0.251
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 4	23230	782	23.48	24.50	1.265	-	-	0.08	0.307	0.388
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 4	23230	782	23.48	24.50	1.265	-	-	0.07	0.293	0.371
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 4	23230	782	23.48	24.50	1.265	-	-	-0.02	0.124	0.157
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 4	23230	782	23.48	24.50	1.265	-	-	0.01	0.161	0.204
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	23230	782	23.47	25.00	1.422	-	-	0.01	0.160	0.228
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	23230	782	23.47	25.00	1.422	-	-	0.04	0.213	0.303
	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	23230	782	23.47	25.00	1.422	-	-	0.03	0.276	0.393
	LTE Band 13	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	23230	782	23.47	25.00	1.422	-	-	0.12	0.167	0.238
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 4	23230	782	22.68	24.50	1.521	-	-	-0.04	0.156	0.237
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 4	23230	782	22.68	24.50	1.521	-	-	0.11	0.202	0.307
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 4	23230	782	22.68	24.50	1.521	-	-	-0.09	0.238	0.362
	LTE Band 13	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	DSI 4	23230	782	22.68	24.50	1.521	-	-	-0.02	0.161	0.245
835MHz																				
24	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 0	DSI 4	189	836.4	26.78	28.00	1.324	-	-	0.05	0.443	0.587
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 0	DSI 4	189	836.4	26.78	28.00	1.324	-	-	-0.05	0.350	0.464
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 0	DSI 4	189	836.4	26.78	28.00	1.324	-	-	0.11	0.163	0.216
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 0	DSI 4	189	836.4	26.78	28.00	1.324	-	-	-0.14	0.182	0.241
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	DSI 4	189	836.4	25.28	26.50	1.324	-	-	0.08	0.145	0.192
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	DSI 4	189	836.4	25.28	26.50	1.324	-	-	-0.12	0.205	0.271
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	DSI 4	189	836.4	25.28	26.50	1.324	-	-	-0.06	0.103	0.136
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 1	DSI 4	189	836.4	25.28	26.50	1.324	-	-	-0.09	0.177	0.234
25	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 4	4182	836.4	24.09	25.00	1.233	-	-	-0.01	0.463	0.571
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 4	4182	836.4	24.09	25.00	1.233	-	-	0.07	0.402	0.496
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 4	4182	836.4	24.09	25.00	1.233	-	-	0.15	0.156	0.192
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	4182	836.4	24.09	25.00	1.233	-	-	0.03	0.230	0.284
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 4	4182	836.4	21.78	23.50	1.486	-	-	0.08	0.147	0.218
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 4	4182	836.4	21.78	23.50	1.486	-	-	0.01	0.202	0.300
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 4	4182	836.4	21.78	23.50	1.486	-	-	0.06	0.120	0.178
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	DSI 4	4182	836.4	21.78	23.50	1.486	-	-	-0.12	0.154	0.229
26	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	26865	831.5	24.57	25.50	1.239	-	-	-0.02	0.461	0.571



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	26865	831.5	24.57	25.50	1.239	-	-	-0.1	0.408	0.505
	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	26865	831.5	24.57	25.50	1.239	-	-	0.05	0.157	0.194
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	26865	831.5	24.57	25.50	1.239	-	-	0.1	0.241	0.299
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	DSI 4	26865	831.5	23.52	24.50	1.253	-	-	0.12	0.322	0.404
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	DSI 4	26865	831.5	23.52	24.50	1.253	-	-	0.08	0.319	0.400
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 0	DSI 4	26865	831.5	23.52	24.50	1.253	-	-	-0.14	0.129	0.162
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 0	DSI 4	26865	831.5	23.52	24.50	1.253	-	-	0.1	0.195	0.244
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	26865	831.5	22.57	24.00	1.390	-	-	0.04	0.142	0.197
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	26865	831.5	22.57	24.00	1.390	-	-	-0.1	0.274	0.381
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	26865	831.5	22.57	24.00	1.390	-	-	-0.15	0.168	0.234
	LTE Band 26	15M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	26865	831.5	22.57	24.00	1.390	-	-	-0.12	0.175	0.243
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	DSI 4	26865	831.5	22.32	24.00	1.472	-	-	-0.13	0.138	0.203
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	DSI 4	26865	831.5	22.32	24.00	1.472	-	-	0.11	0.227	0.334
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 1	DSI 4	26865	831.5	22.32	24.00	1.472	-	-	-0.1	0.133	0.196
	LTE Band 26	15M	QPSK	36	0	-	Top Side	10mm	Ant 1	DSI 4	26865	831.5	22.32	24.00	1.472	-	-	0.04	0.180	0.265
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 4	1413	1732.6	17.49	19.00	1.416	-	-	-0.09	0.108	0.153
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 4	1413	1732.6	17.49	19.00	1.416	-	-	-0.13	0.153	0.217
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 4	1413	1732.6	17.49	19.00	1.416	-	-	-0.01	0.103	0.146
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	DSI 4	1413	1732.6	17.49	19.00	1.416	-	-	0.04	0.201	0.285
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	DSI 4	1413	1732.6	22.07	22.50	1.104	-	-	-0.08	0.423	0.467
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	DSI 4	1413	1732.6	22.07	22.50	1.104	-	-	-0.14	0.671	0.741
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI 4	1413	1732.6	22.07	22.50	1.104	-	-	-0.06	0.146	0.161
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	1413	1732.6	22.07	22.50	1.104	-	-	0.1	0.741	0.818
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	1312	1712.4	22.01	22.50	1.119	-	-	-0.09	0.651	0.729
27	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	1513	1752.6	21.95	22.50	1.135	-	-	-0.02	0.763	0.866
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	20175	1732.5	21.97	22.70	1.183	-	-	0.11	0.409	0.484
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	20175	1732.5	21.97	22.70	1.183	-	-	-0.07	0.523	0.619
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	20175	1732.5	21.97	22.70	1.183	-	-	0.01	0.139	0.164
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	20175	1732.5	21.97	22.70	1.183	-	-	0.07	0.712	0.842
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	20050	1720	21.85	22.70	1.216	-	-	0.1	0.673	0.818
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	20300	1745	21.91	22.70	1.199	-	-	-0.06	0.694	0.832
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	20175	1732.5	21.95	22.70	1.189	-	-	-0.08	0.408	0.485
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	20175	1732.5	21.95	22.70	1.189	-	-	-0.08	0.536	0.637
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	20175	1732.5	21.95	22.70	1.189	-	-	-0.04	0.157	0.187
28	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	20175	1732.5	21.95	22.70	1.189	-	-	0.11	0.743	0.883
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	20050	1720	21.77	22.70	1.239	-	-	0.03	0.683	0.846
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	20300	1745	21.89	22.70	1.205	-	-	0.01	0.702	0.846
	LTE Band 4	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	DSI 4	20175	1732.5	21.89	22.70	1.205	-	-	-0.15	0.723	0.871
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 4	20175	1732.5	24.71	25.50	1.199	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 4	20175	1732.5	24.71	25.50	1.199	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	20175	1732.5	24.71	25.50	1.199	-	-	-0.14	0.050	0.060
	LTE Band 4	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 4	20175	1732.5	24.71	25.50	1.199	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 4	20175	1732.5	23.75	24.50	1.189	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 4	20175	1732.5	23.75	24.50	1.189	-	-	-	n/a	n/a
	LTE Band 4	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	20175	1732.5	23.75	24.50	1.189	-	-	-0.05	0.045	0.053
	LTE Band 4	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 4	20175	1732.5	23.75	24.50	1.189	-	-	-	n/a	n/a
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	DSI 4	661	1880	20.64	22.00	1.368	-	-	-0.02	0.179	0.245
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	DSI 4	661	1880	20.64	22.00	1.368	-	-	-0.1	0.193	0.264
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	DSI 4	661	1880	20.64	22.00	1.368	-	-	-0.14	0.200	0.274
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 1	DSI 4	661	1880	20.64	22.00	1.368	-	-	-0.02	0.237	0.324
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 2	DSI 4	661	1880	23.57	24.50	1.239	-	-	-0.1	0.335	0.415
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 2	DSI 4	661	1880	23.57	24.50	1.239	-	-	-0.03	0.458	0.567
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 2	DSI 4	661	1880	23.57	24.50	1.239	-	-	-0.04	0.129	0.160
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	DSI 4	661	1880	23.57	24.50	1.239	-	-	-0.06	0.680	0.842



FCC SAR Test Report

Report No. : FA350505-01

29	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	DSI 4	512	1850.2	23.50	24.50	1.259	-	-	0.19	0.700	0.881
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	DSI 4	810	1909.8	23.51	24.50	1.256	-	-	-0.03	0.675	0.848
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 4	9400	1880	17.09	18.50	1.384	-	-	-0.07	0.162	0.224
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 4	9400	1880	17.09	18.50	1.384	-	-	-0.12	0.219	0.303
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 4	9400	1880	17.09	18.50	1.384	-	-	0.06	0.165	0.228
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	DSI 4	9400	1880	17.09	18.50	1.384	-	-	0.02	0.220	0.304
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	DSI 4	9400	1880	21.50	22.00	1.122	-	-	0.15	0.505	0.567
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	DSI 4	9400	1880	21.50	22.00	1.122	-	-	-0.03	0.634	0.711
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI 4	9400	1880	21.50	22.00	1.122	-	-	-0.02	0.195	0.219
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	9400	1880	21.50	22.00	1.122	-	-	-0.06	0.920	1.032
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	9262	1852.4	21.47	22.00	1.130	-	-	0.05	0.883	0.998
30	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	9538	1907.6	21.44	22.00	1.138	-	-	0.18	0.920	1.047
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	18900	1880	20.20	21.50	1.349	-	-	-0.15	0.329	0.444
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	18900	1880	20.20	21.50	1.349	-	-	0.03	0.433	0.584
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	18900	1880	20.20	21.50	1.349	-	-	0.01	0.129	0.174
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	18900	1880	20.20	21.50	1.349	-	-	-0.14	0.577	0.778
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	18700	1860	20.12	21.50	1.374	-	-	0.12	0.567	0.779
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	19100	1900	20.18	21.50	1.355	-	-	0.04	0.572	0.775
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	18900	1880	20.12	21.50	1.374	-	-	-0.15	0.343	0.471
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	18900	1880	20.12	21.50	1.374	-	-	0.05	0.418	0.574
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	18900	1880	20.12	21.50	1.374	-	-	-0.02	0.120	0.165
31	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	18900	1880	20.12	21.50	1.374	-	-	-0.11	0.724	0.995
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	18700	1860	20.01	21.50	1.409	-	-	0.13	0.579	0.816
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	19100	1900	20.09	21.50	1.384	-	-	0.15	0.583	0.807
	LTE Band 2	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	DSI 4	18900	1880	20.07	21.50	1.390	-	-	0.09	0.582	0.809
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 4	18900	1880	23.51	24.50	1.256	-	-	-0.02	0.277	0.348
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 4	18900	1880	23.51	24.50	1.256	-	-	-0.15	0.416	0.523
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	18900	1880	23.51	24.50	1.256	-	-	0.03	0.682	0.857
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 4	18900	1880	23.51	24.50	1.256	-	-	0.02	0.043	0.054
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	18700	1860	23.46	24.50	1.271	-	-	0.12	0.608	0.773
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	19100	1900	23.38	24.50	1.294	-	-	0.04	0.651	0.843
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 4	18900	1880	22.50	23.50	1.259	-	-	-0.08	0.212	0.267
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 4	18900	1880	22.50	23.50	1.259	-	-	0.11	0.326	0.410
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	18900	1880	22.50	23.50	1.259	-	-	-0.04	0.617	0.777
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 4	18900	1880	22.50	23.50	1.259	-	-	-	n/a	n/a
	LTE Band 2	20M	QPSK	100	0	-	Right Side	10mm	Ant 4	DSI 4	18900	1880	22.44	23.50	1.276	-	-	0.03	0.632	0.807
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	21100	2535	20.35	21.50	1.303	-	-	-0.13	0.337	0.439
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	21100	2535	20.35	21.50	1.303	-	-	-0.01	0.556	0.725
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	21100	2535	20.35	21.50	1.303	-	-	-0.07	0.182	0.237
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	21100	2535	20.35	21.50	1.303	-	-	0.05	0.625	0.814
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	20850	2510	20.15	21.50	1.365	-	-	-0.09	0.540	0.737
32	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	21350	2560	20.19	21.50	1.352	-	-	-0.11	0.631	0.853
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	21100	2535	20.34	21.50	1.306	-	-	-0.08	0.362	0.473
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	21100	2535	20.34	21.50	1.306	-	-	-0.03	0.561	0.733
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	21100	2535	20.34	21.50	1.306	-	-	-0.12	0.192	0.251
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	21100	2535	20.34	21.50	1.306	-	-	0.04	0.614	0.802
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	20850	2510	20.09	21.50	1.384	-	-	-0.1	0.539	0.746
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	21350	2560	20.16	21.50	1.361	-	-	-0.11	0.614	0.836
	LTE Band 7	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	DSI 4	21100	2535	20.24	21.50	1.337	-	-	0.05	0.543	0.726
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 4	21100	2535	20.27	21.00	1.183	-	-	-0.02	0.206	0.244
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 4	21100	2535	20.27	21.00	1.183	-	-	0.11	0.256	0.303
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	21100	2535	20.27	21.00	1.183	-	-	-0.03	0.486	0.575
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 4	21100	2535	20.27	21.00	1.183	-	-	-0.12	0.044	0.052
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 4	21100	2535	20.25	21.00	1.189	-	-	0.09	0.207	0.246
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 4	21100	2535	20.25	21.00	1.189	-	-	-0.09	0.265	0.315



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	21100	2535	20.25	21.00	1.189	-	-	0.07	0.603	0.717
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 4	21100	2535	20.25	21.00	1.189	-	-	-0.09	0.047	0.056
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	40620	2593	20.33	21.00	1.167	62.9	1.006	0.07	0.126	0.148
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	20.33	21.00	1.167	62.9	1.006	-0.08	0.184	0.216
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	40620	2593	20.33	21.00	1.167	62.9	1.006	0.07	0.120	0.141
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 1	DSI 4	40620	2593	20.33	21.00	1.167	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	40620	2593	20.33	21.00	1.167	62.9	1.006	-0.03	0.205	0.241
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	40620	2593	20.31	21.00	1.172	62.9	1.006	0.04	0.125	0.147
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	20.31	21.00	1.172	62.9	1.006	-0.04	0.181	0.213
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	40620	2593	20.31	21.00	1.172	62.9	1.006	0.07	0.122	0.144
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 1	DSI 4	40620	2593	20.31	21.00	1.172	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	40620	2593	20.31	21.00	1.172	62.9	1.006	0.02	0.213	0.251
	LTE Band 41C	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	40620+ 40422	2593+ 2573.2	19.67	21.00	1.358	62.9	1.006	0.01	0.122	0.167
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	40620	2593	23.44	24.20	1.191	62.9	1.006	0.15	0.388	0.465
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	40620	2593	23.44	24.20	1.191	62.9	1.006	-0.07	0.655	0.785
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	40620	2593	23.44	24.20	1.191	62.9	1.006	-0.04	0.176	0.211
33	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	40620	2593	23.44	24.20	1.191	62.9	1.006	0.17	0.788	0.944
	LTE Band 41C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	40620+ 40422	2593+ 2573.2	22.79	24.20	1.384	62.9	1.006	0.05	0.360	0.501
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	39750	2506	23.39	24.20	1.205	62.9	1.006	-0.08	0.586	0.710
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	40185	2549.5	23.35	24.20	1.216	62.9	1.006	-0.04	0.631	0.772
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	41055	2636.5	23.31	24.20	1.227	62.9	1.006	0.14	0.596	0.736
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	41490	2680	23.25	24.20	1.245	62.9	1.006	0.11	0.582	0.729
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	39750	2506	23.39	24.20	1.205	62.9	1.006	0.13	0.596	0.723
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	40185	2549.5	23.35	24.20	1.216	62.9	1.006	0.09	0.629	0.770
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	41055	2636.5	23.31	24.20	1.227	62.9	1.006	-0.14	0.516	0.637
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	41490	2680	23.25	24.20	1.245	62.9	1.006	0.02	0.458	0.573
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	40620	2593	23.38	24.20	1.208	62.9	1.006	0.15	0.385	0.468
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	40620	2593	23.38	24.20	1.208	62.9	1.006	-0.09	0.646	0.785
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	40620	2593	23.38	24.20	1.208	62.9	1.006	-0.13	0.170	0.207
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	40620	2593	23.38	24.20	1.208	62.9	1.006	-0.14	0.678	0.824
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	39750	2506	23.31	24.20	1.227	62.9	1.006	-0.01	0.599	0.740
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	40185	2549.5	23.32	24.20	1.225	62.9	1.006	0.07	0.655	0.807
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	41055	2636.5	23.28	24.20	1.236	62.9	1.006	0.07	0.597	0.742
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	41490	2680	23.21	24.20	1.256	62.9	1.006	0.03	0.579	0.732
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	39750	2506	23.31	24.20	1.227	62.9	1.006	-0.13	0.608	0.751
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	40185	2549.5	23.32	24.20	1.225	62.9	1.006	-0.14	0.639	0.787
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	41055	2636.5	23.28	24.20	1.236	62.9	1.006	0.08	0.503	0.625
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	41490	2680	23.21	24.20	1.256	62.9	1.006	-0.08	0.457	0.577
	LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 2	DSI 4	40620	2593	23.35	24.20	1.216	62.9	1.006	-0.08	0.635	0.777
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	DSI 4	40620	2593	23.35	24.20	1.216	62.9	1.006	0.01	0.712	0.871
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	40620	2593	22.04	23.00	1.247	62.9	1.006	0.05	0.243	0.305
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	40620	2593	22.04	23.00	1.247	62.9	1.006	0.04	0.188	0.236
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	40620	2593	22.04	23.00	1.247	62.9	1.006	-0.03	0.442	0.555
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	DSI 4	40620	2593	22.04	23.00	1.247	62.9	1.006	0.1	0.050	0.063
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	40620	2593	21.98	23.00	1.265	62.9	1.006	0.1	0.244	0.310
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	40620	2593	21.98	23.00	1.265	62.9	1.006	-0.08	0.187	0.238
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	40620	2593	21.98	23.00	1.265	62.9	1.006	-0.05	0.468	0.595
	LTE Band 41C	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	40620+ 40422	2593+ 2573.2	21.03	23.00	1.574	62.9	1.006	-0.08	0.129	0.204
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	DSI 4	40620	2593	21.98	23.00	1.265	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 4	40620	2593	21.52	22.20	1.169	62.9	1.006	-0.06	0.293	0.345
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 4	40620	2593	21.52	22.20	1.169	62.9	1.006	-0.06	0.371	0.436
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	40620	2593	21.52	22.20	1.169	62.9	1.006	-0.01	0.645	0.759
	LTE Band 41C	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	40620+ 40422	2593+ 2573.2	21.04	22.20	1.306	62.9	1.006	0.04	0.159	0.209
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 4	40620	2593	21.52	22.20	1.169	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	39750	2506	21.34	22.20	1.219	62.9	1.006	0.07	0.490	0.601



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	40185	2549.5	21.48	22.20	1.180	62.9	1.006	-0.13	0.539	0.640
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	41055	2636.5	21.45	22.20	1.189	62.9	1.006	-0.03	0.480	0.574
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	41490	2680	21.29	22.20	1.233	62.9	1.006	-0.08	0.365	0.453
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 4	40620	2593	21.50	22.20	1.175	62.9	1.006	-0.08	0.292	0.345
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 4	40620	2593	21.50	22.20	1.175	62.9	1.006	-0.11	0.370	0.437
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	40620	2593	21.50	22.20	1.175	62.9	1.006	0.15	0.570	0.674
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 4	40620	2593	21.50	22.20	1.175	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	39750	2506	21.27	22.20	1.239	62.9	1.006	-0.03	0.434	0.541
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	40185	2549.5	21.45	22.20	1.189	62.9	1.006	-0.05	0.560	0.670
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	41055	2636.5	21.43	22.20	1.194	62.9	1.006	-0.01	0.474	0.569
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	41490	2680	21.21	22.20	1.256	62.9	1.006	-0.03	0.352	0.445
	LTE Band 41	20M	QPSK	100	0	-	Right Side	10mm	Ant 4	DSI 4	40620	2593	21.47	22.20	1.183	62.9	1.006	0.05	0.593	0.706
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 1	DSI 4	518598	2592.99	17.03	18.50	1.403	-	-	-0.12	0.114	0.160
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 1	DSI 4	518598	2592.99	17.03	18.50	1.403	-	-	0.09	0.135	0.189
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 1	DSI 4	518598	2592.99	17.03	18.50	1.403	-	-	-0.15	0.105	0.147
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 1	DSI 4	518598	2592.99	17.03	18.50	1.403	-	-	-0.05	0.148	0.208
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	518598	2592.99	16.96	18.50	1.426	-	-	-0.08	0.108	0.154
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	518598	2592.99	16.96	18.50	1.426	-	-	-0.06	0.133	0.190
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	518598	2592.99	16.96	18.50	1.426	-	-	-0.04	0.099	0.141
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	518598	2592.99	16.96	18.50	1.426	-	-	0.07	0.137	0.195
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 2	DSI 4	518598	2592.99	20.27	21.20	1.239	-	-	-0.07	0.291	0.360
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 2	DSI 4	518598	2592.99	20.27	21.20	1.239	-	-	-0.01	0.467	0.579
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 2	DSI 4	518598	2592.99	20.27	21.20	1.239	-	-	0.04	0.152	0.188
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 2	DSI 4	518598	2592.99	20.27	21.20	1.239	-	-	0.1	0.507	0.628
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI 4	518598	2592.99	20.15	21.20	1.274	-	-	-0.03	0.296	0.377
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI 4	518598	2592.99	20.15	21.20	1.274	-	-	-0.13	0.479	0.610
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI 4	518598	2592.99	20.15	21.20	1.274	-	-	-0.13	0.132	0.168
34	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 2	DSI 4	518598	2592.99	20.15	21.20	1.274	-	-	0.13	0.553	0.704
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 2	DSI 4	518598	2592.99	20.13	21.20	1.279	-	-	-0.13	0.470	0.601
	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Side	10mm	Ant 2	DSI 4	518598	2592.99	20.13	21.20	1.279	-	-	0.09	0.526	0.673
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI 4	518598	2592.99	19.61	21.00	1.377	-	-	0.02	0.187	0.258
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI 4	518598	2592.99	19.61	21.00	1.377	-	-	0.14	0.153	0.211
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 4	518598	2592.99	19.61	21.00	1.377	-	-	-0.03	0.438	0.603
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	DSI 4	518598	2592.99	19.61	21.00	1.377	-	-	-0.08	0.040	0.055
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI 4	518598	2592.99	19.54	21.00	1.400	-	-	-0.01	0.201	0.281
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI 4	518598	2592.99	19.54	21.00	1.400	-	-	0.05	0.170	0.238
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI 4	518598	2592.99	19.54	21.00	1.400	-	-	0.09	0.457	0.640
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	DSI 4	518598	2592.99	19.54	21.00	1.400	-	-	0.14	0.047	0.066
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 3	DSI 4	518598	2592.99	19.50	21.00	1.413	-	-	0.09	0.451	0.637
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	DSI 4	518598	2592.99	18.87	19.70	1.211	-	-	0.14	0.246	0.298
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 4	518598	2592.99	18.87	19.70	1.211	-	-	0.13	0.329	0.398
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 4	DSI 4	518598	2592.99	18.87	19.70	1.211	-	-	-0.01	0.440	0.533
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 4	518598	2592.99	18.87	19.70	1.211	-	-	0.04	0.029	0.035
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 4	518598	2592.99	18.78	19.70	1.236	-	-	-0.08	0.224	0.277
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	518598	2592.99	18.78	19.70	1.236	-	-	0.14	0.289	0.357
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 4	DSI 4	518598	2592.99	18.78	19.70	1.236	-	-	-0.12	0.495	0.612
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 4	518598	2592.99	18.78	19.70	1.236	-	-	-0.1	0.023	0.028
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 4	DSI 4	518598	2592.99	18.73	19.70	1.250	-	-	0.13	0.417	0.521
3000-4000MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	42590	3500	20.76	22.00	1.330	62.9	1.006	-0.01	0.153	0.205
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	42590	3500	20.76	22.00	1.330	62.9	1.006	0.07	0.341	0.456
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	42590	3500	20.76	22.00	1.330	62.9	1.006	0.03	0.234	0.313
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	42590	3500	20.76	22.00	1.330	62.9	1.006	0.05	0.528	0.707
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	42190	3460	20.67	22.00	1.358	62.9	1.006	0.14	0.513	0.701
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	42990	3540	20.75	22.00	1.334	62.9	1.006	0.13	0.484	0.649
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	42590	3500	20.75	22.00	1.334	62.9	1.006	-0.02	0.100	0.134



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	42590	3500	20.75	22.00	1.334	62.9	1.006	0.01	0.212	0.284
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	42590	3500	20.75	22.00	1.334	62.9	1.006	-0.06	0.149	0.199
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	42590	3500	20.75	22.00	1.334	62.9	1.006	-0.06	0.551	0.739
	LTE Band 42C	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	42590+ 42788	3500+ 3519.8	20.37	22.00	1.455	62.9	1.006	0.03	0.195	0.286
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	42190	3460	20.63	22.00	1.371	62.9	1.006	-0.12	0.543	0.749
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	42990	3540	20.73	22.00	1.340	62.9	1.006	0.03	0.517	0.697
	LTE Band 42	20M	QPSK	100	0	-	Top Side	10mm	Ant 1	DSI 4	42590	3500	20.65	22.00	1.365	62.9	1.006	0.03	0.532	0.730
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 5	DSI 4	42590	3500	20.11	21.00	1.227	62.9	1.006	-0.03	0.115	0.142
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 5	DSI 4	42590	3500	20.11	21.00	1.227	62.9	1.006	-0.07	0.161	0.199
	LTE Band 42	20M	QPSK	1	0	-	Right Side	10mm	Ant 5	DSI 4	42590	3500	20.11	21.00	1.227	62.9	1.006	0.08	0.094	0.116
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 4	42590	3500	20.11	21.00	1.227	62.9	1.006	-0.15	0.350	0.432
	LTE Band 42C	20M	QPSK	1	0	-	Top Side	10mm	Ant 5	DSI 4	42590+ 42788	3500+ 3519.8	19.88	21.00	1.294	62.9	1.006	0.07	0.203	0.264
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 5	DSI 4	42590	3500	20.05	21.00	1.245	62.9	1.006	-0.03	0.115	0.144
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 5	DSI 4	42590	3500	20.05	21.00	1.245	62.9	1.006	0.11	0.172	0.215
	LTE Band 42	20M	QPSK	50	0	-	Right Side	10mm	Ant 5	DSI 4	42590	3500	20.05	21.00	1.245	62.9	1.006	0.15	0.121	0.151
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 5	DSI 4	42590	3500	20.05	21.00	1.245	62.9	1.006	0.01	0.339	0.424
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 6	DSI 4	42590	3500	16.22	17.50	1.343	62.9	1.006	-0.1	0.163	0.220
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 6	DSI 4	42590	3500	16.22	17.50	1.343	62.9	1.006	-0.11	0.155	0.209
	LTE Band 42	20M	QPSK	1	0	-	Right Side	10mm	Ant 6	DSI 4	42590	3500	16.22	17.50	1.343	62.9	1.006	-0.02	0.329	0.444
	LTE Band 42C	20M	QPSK	1	0	-	Right Side	10mm	Ant 6	DSI 4	42590+ 2788	3500+ 3519.8	15.58	17.50	1.556	62.9	1.006	0.07	0.172	0.269
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	DSI 4	42590	3500	16.22	17.50	1.343	62.9	1.006	-	n/a	n/a
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 6	DSI 4	42590	3500	16.19	17.50	1.352	62.9	1.006	0.09	0.148	0.201
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 6	DSI 4	42590	3500	16.19	17.50	1.352	62.9	1.006	0.1	0.143	0.195
	LTE Band 42	20M	QPSK	50	0	-	Right Side	10mm	Ant 6	DSI 4	42590	3500	16.19	17.50	1.352	62.9	1.006	0.1	0.322	0.438
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	DSI 4	42590	3500	16.19	17.50	1.352	62.9	1.006	-	n/a	n/a
	LTE Band 42	20M	QPSK	1	0	-	Front	10mm	Ant 7	DSI 4	42590	3500	16.80	17.50	1.175	62.9	1.006	-	n/a	n/a
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 7	DSI 4	42590	3500	16.80	17.50	1.175	62.9	1.006	0.02	0.774	0.915
	LTE Band 42	20M	QPSK	1	0	-	Left Side	10mm	Ant 7	DSI 4	42590	3500	16.80	17.50	1.175	62.9	1.006	0.06	0.150	0.177
	LTE Band 42	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	DSI 4	42590	3500	16.80	17.50	1.175	62.9	1.006	-	n/a	n/a
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 7	DSI 4	42190	3460	16.72	17.50	1.197	62.9	1.006	-0.04	0.643	0.774
	LTE Band 42	20M	QPSK	1	0	-	Back	10mm	Ant 7	DSI 4	42990	3540	16.75	17.50	1.189	62.9	1.006	0.14	0.634	0.758
	LTE Band 42	20M	QPSK	50	0	-	Front	10mm	Ant 7	DSI 4	42590	3500	16.71	17.50	1.199	62.9	1.006	-	n/a	n/a
35	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 7	DSI 4	42590	3500	16.71	17.50	1.199	62.9	1.006	-0.03	0.876	1.057
	LTE Band 42C	20M	QPSK	50	0	-	Back	10mm	Ant 7	DSI 4	42590+ 42788	3500+ 3519.8	15.84	17.50	1.466	62.9	1.006	0.01	0.583	0.860
	LTE Band 42	20M	QPSK	50	0	-	Left Side	10mm	Ant 7	DSI 4	42590	3500	16.71	17.50	1.199	62.9	1.006	-0.01	0.144	0.174
	LTE Band 42	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	DSI 4	42590	3500	16.71	17.50	1.199	62.9	1.006	-	n/a	n/a
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 7	DSI 4	42190	3460	16.64	17.50	1.219	62.9	1.006	-0.14	0.634	0.777
	LTE Band 42	20M	QPSK	50	0	-	Back	10mm	Ant 7	DSI 4	42990	3540	16.70	17.50	1.202	62.9	1.006	0.03	0.630	0.762
	LTE Band 42	20M	QPSK	100	0	-	Back	10mm	Ant 7	DSI 4	42590	3500	16.65	17.50	1.216	62.9	1.006	-0.15	0.785	0.960
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	656000	3840	16.42	18.00	1.439	-	-	-0.04	0.113	0.163
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	656000	3840	16.42	18.00	1.439	-	-	-0.01	0.213	0.306
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	656000	3840	16.42	18.00	1.439	-	-	0.08	0.096	0.138
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	656000	3840	16.42	18.00	1.439	-	-	-0.12	0.356	0.512
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	656000	3840	16.40	18.00	1.445	-	-	0.04	0.117	0.169
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	656000	3840	16.40	18.00	1.445	-	-	-0.14	0.210	0.304
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	656000	3840	16.40	18.00	1.445	-	-	-0.04	0.089	0.129
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	656000	3840	16.40	18.00	1.445	-	-	-0.09	0.325	0.470
	FR1 n77_Par27O	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 1	DSI 4	656000	3840	16.31	18.00	1.476	-	-	0.02	0.331	0.488
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	15.60	17.00	1.380	-	-	0.02	0.045	0.062
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	15.60	17.00	1.380	-	-	0.06	0.111	0.153
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	15.60	17.00	1.380	-	-	-0.03	0.071	0.098
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	15.60	17.00	1.380	-	-	-0.06	0.145	0.200
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	15.59	17.00	1.384	-	-	0.15	0.040	0.055
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	15.59	17.00	1.384	-	-	-0.12	0.099	0.137
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	15.59	17.00	1.384	-	-	0.01	0.065	0.090



FCC SAR Test Report

Report No. : FA350505-01

	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	15.59	17.00	1.384	-	-	0.05	0.133	0.184
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	656000	3840	16.67	18.50	1.524	-	-	0.13	0.098	0.149
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	656000	3840	16.67	18.50	1.524	-	-	0.16	0.098	0.149
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	656000	3840	16.67	18.50	1.524	-	-	-	n/a	n/a
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	656000	3840	16.67	18.50	1.524	-	-	0.16	0.268	0.408
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	656000	3840	16.64	18.50	1.535	-	-	0.15	0.094	0.144
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	656000	3840	16.64	18.50	1.535	-	-	0.11	0.103	0.158
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	656000	3840	16.64	18.50	1.535	-	-	0.06	0.076	0.117
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	656000	3840	16.64	18.50	1.535	-	-	0.01	0.192	0.295
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	17.23	18.50	1.340	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	17.23	18.50	1.340	-	-	0.11	0.167	0.224
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	17.23	18.50	1.340	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	17.23	18.50	1.340	-	-	-0.16	0.312	0.418
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	17.22	18.50	1.343	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	17.22	18.50	1.343	-	-	0.07	0.160	0.215
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	17.22	18.50	1.343	-	-	-	n/a	n/a
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	656000	3840	16.11	18.00	1.545	-	-	-0.15	0.129	0.200
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	656000	3840	16.11	18.00	1.545	-	-	0.08	0.106	0.164
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	16.11	18.00	1.545	-	-	0.14	0.237	0.366
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	656000	3840	16.11	18.00	1.545	-	-	-	n/a	n/a
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	656000	3840	16.06	18.00	1.563	-	-	0.01	0.114	0.179
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	656000	3840	16.06	18.00	1.563	-	-	-0.05	0.105	0.164
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	16.06	18.00	1.563	-	-	-0.09	0.221	0.345
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	656000	3840	16.06	18.00	1.563	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	16.04	17.50	1.400	-	-	-0.13	0.142	0.199
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	16.04	17.50	1.400	-	-	-0.14	0.137	0.192
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	16.04	17.50	1.400	-	-	-0.04	0.342	0.479
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	16.04	17.50	1.400	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	16.02	17.50	1.406	-	-	-0.09	0.139	0.195
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	16.02	17.50	1.406	-	-	0.19	0.126	0.177
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	16.02	17.50	1.406	-	-	0.11	0.249	0.350
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	16.02	17.50	1.406	-	-	-	n/a	n/a
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	656000	3840	15.36	17.00	1.459	-	-	-	n/a	n/a
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	656000	3840	15.36	17.00	1.459	-	-	-0.04	0.235	0.343
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	656000	3840	15.36	17.00	1.459	-	-	-0.09	0.091	0.133
	FR1 n77_Par27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	656000	3840	15.36	17.00	1.459	-	-	-	n/a	n/a
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	656000	3840	15.25	17.00	1.496	-	-	-	n/a	n/a
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	656000	3840	15.25	17.00	1.496	-	-	-0.03	0.232	0.347
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	656000	3840	15.25	17.00	1.496	-	-	-0.08	0.085	0.127
	FR1 n77_Par27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	656000	3840	15.25	17.00	1.496	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	14.61	16.00	1.377	-	-	0.04	0.028	0.039
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	14.61	16.00	1.377	-	-	0.03	0.489	0.673
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	14.61	16.00	1.377	-	-	-0.17	0.141	0.194
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 7	DSI 4	633332	3499.98	14.61	16.00	1.377	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	14.61	16.00	1.377	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	14.54	16.00	1.400	-	-	0.05	0.026	0.036
36	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	14.54	16.00	1.400	-	-	-0.03	0.533	0.746
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	14.54	16.00	1.400	-	-	-0.01	0.136	0.190
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	DSI 4	633332	3499.98	14.54	16.00	1.400	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	14.54	16.00	1.400	-	-	-	n/a	n/a
	FR1 n77_Par27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	14.55	16.00	1.396	-	-	0.13	0.513	0.716
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	650000	3750	16.15	17.50	1.365	-	-	-0.07	0.128	0.175
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	650000	3750	16.15	17.50	1.365	-	-	-0.03	0.272	0.371
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	650000	3750	16.15	17.50	1.365	-	-	-0.04	0.296	0.404
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	650000	3750	16.15	17.50	1.365	-	-	0.01	0.358	0.489



FCC SAR Test Report

Report No. : FA350505-01

	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	650000	3750	16.12	17.50	1.374	-	-	-0.07	0.126	0.173
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	650000	3750	16.12	17.50	1.374	-	-	0.13	0.244	0.335
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	650000	3750	16.12	17.50	1.374	-	-	0.08	0.281	0.386
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	650000	3750	16.12	17.50	1.374	-	-	0.13	0.350	0.481
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	15.62	17.00	1.374	-	-	-0.02	0.045	0.062
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	15.62	17.00	1.374	-	-	-0.16	0.106	0.146
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	15.62	17.00	1.374	-	-	0.05	0.058	0.080
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	15.62	17.00	1.374	-	-	0.01	0.146	0.201
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	15.58	17.00	1.387	-	-	0.09	0.045	0.062
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	15.58	17.00	1.387	-	-	0.09	0.108	0.150
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	15.58	17.00	1.387	-	-	0.13	0.066	0.092
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	15.58	17.00	1.387	-	-	0.14	0.137	0.190
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	650000	3750	16.12	18.00	1.542	-	-	-0.03	0.067	0.103
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	650000	3750	16.12	18.00	1.542	-	-	-0.14	0.070	0.108
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	650000	3750	16.12	18.00	1.542	-	-	0.07	0.072	0.111
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	650000	3750	16.12	18.00	1.542	-	-	-0.04	0.247	0.381
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	650000	3750	16.09	18.00	1.552	-	-	0.02	0.055	0.085
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	650000	3750	16.09	17.00	1.233	-	-	-0.15	0.057	0.070
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	650000	3750	16.09	17.00	1.233	-	-	-0.04	0.065	0.080
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	650000	3750	16.09	17.00	1.233	-	-	0.05	0.201	0.248
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	16.36	18.00	1.459	-	-	-0.04	0.099	0.144
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	16.36	18.00	1.459	-	-	-0.08	0.128	0.187
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	16.36	18.00	1.459	-	-	-0.11	0.052	0.076
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	16.36	18.00	1.459	-	-	-0.05	0.307	0.448
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	16.33	18.00	1.469	-	-	-0.1	0.111	0.163
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	16.33	18.00	1.469	-	-	0.01	0.138	0.203
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	16.33	18.00	1.469	-	-	-	n/a	n/a
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	16.33	18.00	1.469	-	-	0.1	0.242	0.355
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	650000	3750	16.57	18.00	1.390	-	-	-0.15	0.219	0.304
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	650000	3750	16.57	18.00	1.390	-	-	0.03	0.210	0.292
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	16.57	18.00	1.390	-	-	-0.12	0.425	0.590
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	650000	3750	16.57	18.00	1.390	-	-	-	n/a	n/a
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	650000	3750	16.53	18.00	1.403	-	-	0.12	0.237	0.332
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	650000	3750	16.53	18.00	1.403	-	-	0.09	0.234	0.328
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	16.53	18.00	1.403	-	-	0.14	0.436	0.612
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	650000	3750	16.53	18.00	1.403	-	-	-	n/a	n/a
	FR1 n78_Part27O	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	16.50	18.00	1.413	-	-	0.04	0.411	0.581
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	16.56	18.00	1.393	-	-	0.19	0.142	0.198
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	16.56	18.00	1.393	-	-	0.08	0.140	0.195
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	16.56	18.00	1.393	-	-	0.08	0.291	0.405
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	16.56	18.00	1.393	-	-	0.03	0.081	0.113
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	16.54	18.00	1.400	-	-	-0.08	0.137	0.192
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	16.54	18.00	1.400	-	-	-0.13	0.134	0.188
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	16.54	18.00	1.400	-	-	0.09	0.307	0.430
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	16.54	18.00	1.400	-	-	-0.13	0.088	0.123
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	650000	3750	15.32	17.00	1.472	-	-	-	n/a	n/a
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	650000	3750	15.32	17.00	1.472	-	-	-0.1	0.202	0.297
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	650000	3750	15.32	17.00	1.472	-	-	-0.15	0.076	0.112
	FR1 n78_Part27O	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	650000	3750	15.32	17.00	1.472	-	-	-	n/a	n/a
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	650000	3750	15.31	17.00	1.476	-	-	-	n/a	n/a
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	650000	3750	15.31	17.00	1.476	-	-	-0.11	0.186	0.274
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	650000	3750	15.31	17.00	1.476	-	-	-0.02	0.070	0.103
	FR1 n78_Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	650000	3750	15.31	17.00	1.476	-	-	-	n/a	n/a
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	14.60	16.00	1.380	-	-	-	n/a	n/a
37	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	14.60	16.00	1.380	-	-	0.01	0.505	0.697
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	14.60	16.00	1.380	-	-	-0.08	0.167	0.231



FCC SAR Test Report

Report No. : FA350505-01

FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 7	DSI 4	633332	3499.98	14.60	16.00	1.380	-	-	-	n/a	n/a
FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	14.60	16.00	1.380	-	-	-	n/a	n/a
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	14.58	16.00	1.387	-	-	-	n/a	n/a
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	14.58	16.00	1.387	-	-	0.08	0.432	0.599
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	14.58	16.00	1.387	-	-	0.15	0.151	0.209
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	DSI 4	633332	3499.98	14.58	16.00	1.387	-	-	-	n/a	n/a
FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	14.58	16.00	1.387	-	-	-	n/a	n/a
FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	14.46	16.00	1.426	-	-	0.02	0.423	0.603

<ENDC>

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 41	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	40620	2593	17.63	18.50	1.222	62.9	1.006	-0.14	0.071	0.087
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	17.63	18.50	1.222	62.9	1.006	0.12	0.103	0.127
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	40620	2593	17.63	18.50	1.222	62.9	1.006	0.19	0.067	0.082
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	40620	2593	17.63	18.50	1.222	62.9	1.006	-0.12	0.115	0.141
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	40620	2593	17.61	18.50	1.227	62.9	1.006	0.17	0.070	0.086
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	17.61	18.50	1.227	62.9	1.006	0.17	0.102	0.126
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	40620	2593	17.61	18.50	1.227	62.9	1.006	-0.14	0.069	0.085
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	40620	2593	17.61	18.50	1.227	62.9	1.006	-0.19	0.120	0.148
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	40620	2593	20.72	21.70	1.253	62.9	1.006	-0.19	0.218	0.275
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	40620	2593	20.72	21.70	1.253	62.9	1.006	-0.17	0.368	0.464
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	40620	2593	20.72	21.70	1.253	62.9	1.006	-0.12	0.099	0.125
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 2	DSI 4	40620	2593	20.72	21.70	1.253	62.9	1.006	0.05	0.040	0.050
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 4	40620	2593	20.72	21.70	1.253	62.9	1.006	0.05	0.443	0.558
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	40620	2593	20.67	21.70	1.268	62.9	1.006	0.03	0.217	0.277
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	40620	2593	20.67	21.70	1.268	62.9	1.006	-0.16	0.363	0.463
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	40620	2593	20.67	21.70	1.268	62.9	1.006	0.18	0.096	0.122
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 2	DSI 4	40620	2593	20.67	21.70	1.268	62.9	1.006	-0.18	0.042	0.054
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 4	40620	2593	20.67	21.70	1.268	62.9	1.006	-0.14	0.381	0.486
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	40620	2593	19.11	20.00	1.227	62.9	1.006	0.03	0.122	0.151
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	40620	2593	19.11	20.00	1.227	62.9	1.006	-0.1	0.094	0.116
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	40620	2593	19.11	20.00	1.227	62.9	1.006	0.13	0.222	0.274
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	DSI 4	40620	2593	19.11	20.00	1.227	62.9	1.006	-0.09	0.025	0.031
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	40620	2593	19.03	20.00	1.250	62.9	1.006	-0.14	0.122	0.153
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	40620	2593	19.03	20.00	1.250	62.9	1.006	0.19	0.094	0.118
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	40620	2593	19.03	20.00	1.250	62.9	1.006	-0.19	0.235	0.296
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	DSI 4	40620	2593	19.03	20.00	1.250	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 4	40620	2593	18.42	19.20	1.197	62.9	1.006	-0.06	0.147	0.177
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 4	40620	2593	18.42	19.20	1.197	62.9	1.006	0.1	0.186	0.224
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 4	DSI 4	40620	2593	18.42	19.20	1.197	62.9	1.006	-0.08	0.323	0.389
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 4	40620	2593	18.42	19.20	1.197	62.9	1.006	-	n/a	n/a
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 4	40620	2593	18.31	19.20	1.227	62.9	1.006	-0.18	0.146	0.180
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 4	40620	2593	18.31	19.20	1.227	62.9	1.006	0.09	0.185	0.228
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 4	DSI 4	40620	2593	18.31	19.20	1.227	62.9	1.006	-0.03	0.286	0.353
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 4	40620	2593	18.31	19.20	1.227	62.9	1.006	-	n/a	n/a
3000-4000MHz																				
	FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	656000	3840	14.04	15.50	1.400		1.000	0.16	0.067	0.094
	FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	656000	3840	14.04	15.50	1.400		1.000	-0.16	0.129	0.181
	FR1 n77	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	656000	3840	14.04	15.50	1.400		1.000	0.1	0.057	0.080
	FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	656000	3840	14.04	15.50	1.400		1.000	0.13	0.214	0.300
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	656000	3840	14.02	15.50	1.406		1.000	-0.1	0.070	0.098
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	656000	3840	14.02	15.50	1.406		1.000	0.15	0.123	0.173

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Page : 75 of 105

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FCC SAR Test Report

Report No. : FA350505-01

FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	656000	3840	14.02	15.50	1.406		1.000	0.11	0.053	0.075
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	656000	3840	14.02	15.50	1.406		1.000	-0.15	0.195	0.274
FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	13.07	14.50	1.390		1.000	0.12	0.027	0.038
FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	13.07	14.50	1.390		1.000	0.09	0.073	0.101
FR1 n77	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	13.07	14.50	1.390		1.000	0.09	0.034	0.047
FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	13.07	14.50	1.390		1.000	-0.03	0.087	0.121
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	12.87	14.50	1.455		1.000	-0.18	0.030	0.044
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	12.87	14.50	1.455		1.000	-0.13	0.070	0.102
FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	12.87	14.50	1.455		1.000	-0.05	0.031	0.045
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	12.87	14.50	1.455		1.000	0.11	0.085	0.124
FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	656000	3840	13.61	15.50	1.545	-	-	0.02	0.049	0.076
FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	656000	3840	13.61	15.50	1.545	-	-	0.19	0.049	0.076
FR1 n77	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	656000	3840	13.61	15.50	1.545	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	656000	3840	13.61	15.50	1.545	-	-	0.13	0.134	0.207
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	656000	3840	13.53	15.50	1.574	-	-	0.17	0.047	0.074
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	656000	3840	13.53	15.50	1.574	-	-	-0.07	0.052	0.082
FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	656000	3840	13.53	15.50	1.574	-	-	-0.09	0.038	0.060
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	656000	3840	13.53	15.50	1.574	-	-	-0.19	0.096	0.151
FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	14.13	15.50	1.371	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	14.13	15.50	1.371	-	-	-0.11	0.084	0.115
FR1 n77	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	14.13	15.50	1.371	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	14.13	15.50	1.371	-	-	-0.12	0.156	0.214
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	14.08	15.50	1.387	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	14.08	15.50	1.387	-	-	0.1	0.080	0.111
FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	14.08	15.50	1.387	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	14.08	15.50	1.387	-	-	-0.09	0.148	0.205
FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	656000	3840	13.54	15.50	1.570	-	-	-0.05	0.044	0.069
FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	656000	3840	13.54	15.50	1.570	-	-	0.05	0.037	0.058
FR1 n77	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	13.54	15.50	1.570	-	-	0.1	0.082	0.129
FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	656000	3840	13.54	15.50	1.570	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	656000	3840	13.53	15.50	1.574	-	-	0.1	0.039	0.061
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	656000	3840	13.53	15.50	1.574	-	-	-0.06	0.036	0.057
FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	13.53	15.50	1.574	-	-	-0.15	0.076	0.120
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	656000	3840	13.53	15.50	1.574	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-0.01	0.075	0.107
FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	0.15	0.077	0.110
FR1 n77	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-0.13	0.192	0.273
FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	13.41	15.00	1.442	-	-	0.15	0.069	0.100
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	13.41	15.00	1.442	-	-	0.13	0.071	0.102
FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	13.41	15.00	1.442	-	-	-0.16	0.140	0.202
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	13.41	15.00	1.442	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	656000	3840	13.69	15.50	1.517	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	656000	3840	13.69	15.50	1.517	-	-	0.07	0.166	0.252
FR1 n77	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	656000	3840	13.69	15.50	1.517	-	-	0.04	0.064	0.097
FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	656000	3840	13.69	15.50	1.517	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	656000	3840	13.66	15.50	1.528	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	656000	3840	13.66	15.50	1.528	-	-	0.09	0.164	0.251
FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	656000	3840	13.66	15.50	1.528	-	-	0.09	0.060	0.092
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	656000	3840	13.66	15.50	1.528	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	12.98	14.50	1.419	-	-	0.13	0.020	0.028
FR1 n77	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	12.98	14.50	1.419	-	-	-0.18	0.346	0.491
FR1 n77	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	12.98	14.50	1.419	-	-	-0.06	0.100	0.142
FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	12.98	14.50	1.419	-	-	-	n/a	n/a
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	12.91	14.50	1.442	-	-	0.03	0.018	0.026
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	12.91	14.50	1.442	-	-	0.03	0.377	0.544



FCC SAR Test Report

Report No. : FA350505-01

	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	12.91	14.50	1.442	-	-	0.15	0.096	0.138
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	12.91	14.50	1.442	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	650000	3750	13.57	15.00	1.390		1.000	0.1	0.077	0.107
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	650000	3750	13.57	15.00	1.390		1.000	-0.12	0.168	0.234
	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	650000	3750	13.57	15.00	1.390		1.000	0.11	0.173	0.240
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	650000	3750	13.57	15.00	1.390		1.000	-0.15	0.211	0.293
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	650000	3750	13.56	15.00	1.393		1.000	0.08	0.077	0.107
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	650000	3750	13.56	15.00	1.393		1.000	0.06	0.156	0.217
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	650000	3750	13.56	15.00	1.393		1.000	0.05	0.162	0.226
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	650000	3750	13.56	15.00	1.393		1.000	0.16	0.209	0.291
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	12.95	14.50	1.429		1.000	-0.13	0.027	0.039
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	12.95	14.50	1.429		1.000	-0.14	0.066	0.094
	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	12.95	14.50	1.429		1.000	0.07	0.034	0.049
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	12.95	14.50	1.429		1.000	-0.11	0.087	0.124
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	633332	3499.98	12.93	14.50	1.435		1.000	0.12	0.026	0.037
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	633332	3499.98	12.93	14.50	1.435		1.000	-0.16	0.064	0.092
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	633332	3499.98	12.93	14.50	1.435		1.000	-0.08	0.040	0.057
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	633332	3499.98	12.93	14.50	1.435		1.000	0.01	0.080	0.115
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	650000	3750	13.12	15.00	1.542	-	-	0.09	0.034	0.052
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	650000	3750	13.12	15.00	1.542	-	-	-0.02	0.035	0.054
	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 5	DSI 4	650000	3750	13.12	15.00	1.542	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	650000	3750	13.12	15.00	1.542	-	-	0.15	0.036	0.056
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	650000	3750	13.12	15.00	1.542	-	-	-0.12	0.107	0.165
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	650000	3750	13.10	15.00	1.549	-	-	0.05	0.028	0.043
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	650000	3750	13.10	15.00	1.549	-	-	-0.01	0.029	0.045
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI 4	650000	3750	13.10	15.00	1.549	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	650000	3750	13.10	15.00	1.549	-	-	-0.09	0.033	0.051
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	650000	3750	13.10	15.00	1.549	-	-	0.04	0.101	0.156
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	13.40	15.00	1.445	-	-	0.19	0.050	0.072
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	13.40	15.00	1.445	-	-	0.18	0.064	0.093
	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 5	DSI 4	633332	3499.98	13.40	15.00	1.445	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	13.40	15.00	1.445	-	-	0.05	0.026	0.038
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	13.40	15.00	1.445	-	-	0.16	0.154	0.223
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	13.29	15.00	1.483	-	-	-0.06	0.056	0.083
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	13.29	15.00	1.483	-	-	0.17	0.069	0.102
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI 4	633332	3499.98	13.29	15.00	1.483	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 4	633332	3499.98	13.29	15.00	1.483	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	13.29	15.00	1.483	-	-	0.01	0.121	0.179
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	650000	3750	14.00	15.50	1.413	-	-	0.05	0.073	0.103
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	650000	3750	14.00	15.50	1.413	-	-	0.04	0.073	0.103
	FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	14.00	15.50	1.413	-	-	0.01	0.148	0.209
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	650000	3750	14.00	15.50	1.413	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	650000	3750	13.99	15.50	1.416	-	-	-0.13	0.079	0.112
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	650000	3750	13.99	15.50	1.416	-	-	-0.16	0.082	0.116
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	13.99	15.50	1.416	-	-	-0.08	0.152	0.215
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	650000	3750	13.99	15.50	1.416	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	13.91	15.50	1.442	-	-	0.19	0.077	0.111
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	13.91	15.50	1.442	-	-	-0.11	0.079	0.114
	FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	13.91	15.50	1.442	-	-	0.14	0.164	0.237
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	13.91	15.50	1.442	-	-	-0.09	0.046	0.066
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	13.85	15.50	1.462	-	-	-0.17	0.073	0.107
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	13.85	15.50	1.462	-	-	0.17	0.075	0.110
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	13.85	15.50	1.462	-	-	-0.09	0.173	0.253
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	13.85	15.50	1.462	-	-	0.17	0.049	0.072
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	650000	3750	14.10	16.00	1.549		1.000	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	650000	3750	14.10	16.00	1.549		1.000	0.02	0.162	0.251



FCC SAR Test Report

Report No. : FA350505-01

	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	650000	3750	14.10	16.00	1.549		1.000	-0.12	0.059	0.091
	FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 7	DSI 4	650000	3750	14.10	16.00	1.549		1.000	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	650000	3750	14.10	16.00	1.549		1.000	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	650000	3750	14.04	16.00	1.570		1.000	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	650000	3750	14.04	16.00	1.570		1.000	-0.15	0.155	0.243
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	650000	3750	14.04	16.00	1.570		1.000	-0.04	0.055	0.086
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	DSI 4	650000	3750	14.04	16.00	1.570		1.000	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	650000	3750	14.04	16.00	1.570		1.000	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	13.51	15.00	1.409	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	13.51	15.00	1.409	-	-	0.1	0.408	0.575
	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	13.51	15.00	1.409	-	-	-0.03	0.133	0.187
	FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 7	DSI 4	633332	3499.98	13.51	15.00	1.409	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	13.51	15.00	1.409	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-0.12	0.338	0.481
	FR1 n78	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 7	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-0.11	0.120	0.171
	FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-	n/a	n/a
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	DSI 4	633332	3499.98	13.47	15.00	1.422	-	-	-	n/a	n/a

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)
WLAN/BT																
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 17	Simultaneous	0	2402	16.33	17.50	1.309	76.4	1.309	0.07	0.047	0.081
38	Bluetooth	DH5 1Mbps	Back	10mm	Ant 17	Simultaneous	0	2402	16.33	17.50	1.309	76.4	1.309	0.06	0.126	0.216
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 17	Simultaneous	0	2402	16.33	17.50	1.309	76.4	1.309	-	n/a	n/a
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 17	Simultaneous	0	2402	16.33	17.50	1.309	76.4	1.309	0.07	0.092	0.158
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 6+17	Simultaneous	6	2437	20.37	21.00	1.157	100	1.000	0.16	0.187	0.216
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 6+17	Simultaneous	6	2437	20.37	21.00	1.157	100	1.000	0.02	0.266	0.308
39	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6+17	Simultaneous	6	2437	20.37	21.00	1.157	100	1.000	0.03	0.502	0.581
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 6+17	Simultaneous	6	2437	20.37	21.00	1.157	100	1.000	-0.01	0.290	0.335
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 17	Full_DBS	6	2437	17.61	18.00	1.094	100	1.000	-0.04	0.071	0.078
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 17	Full_DBS	6	2437	17.61	18.00	1.094	100	1.000	-0.03	0.299	0.327
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 17	Full_DBS	6	2437	17.61	18.00	1.094	100	1.000	-0.18	0.070	0.077
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 17	Full_DBS	6	2437	17.61	18.00	1.094	100	1.000	-0.19	0.124	0.136
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 5+18	Simultaneous	42	5210	16.56	18.00	1.392	88.14	1.135	0.17	0.091	0.144
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 5+18	Simultaneous	42	5210	16.56	18.00	1.392	88.14	1.135	-0.1	0.093	0.147
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 5+18	Simultaneous	42	5210	16.56	18.00	1.392	88.14	1.135	0.12	0.151	0.239
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 5+18	Simultaneous	42	5210	16.56	18.00	1.392	88.14	1.135	-0.1	0.154	0.243
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 18	DBS_Simultaneous	42	5210	13.27	15.00	1.490	88.14	1.135	0.15	0.062	0.105
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 18	DBS_Simultaneous	42	5210	13.27	15.00	1.490	88.14	1.135	-0.15	0.101	0.171
40	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 18	DBS_Simultaneous	42	5210	13.27	15.00	1.490	88.14	1.135	0.05	0.164	0.277
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 18	DBS_Simultaneous	42	5210	13.27	15.00	1.490	88.14	1.135	0.12	0.068	0.115
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 5+18	Simultaneous	155	5775	16.05	17.50	1.396	88.14	1.135	0.03	0.085	0.135
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 5+18	Simultaneous	155	5775	16.05	17.50	1.396	88.14	1.135	-0.13	0.118	0.187
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 5+18	Simultaneous	155	5775	16.05	17.50	1.396	88.14	1.135	0.01	0.198	0.314
41	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 5+18	Simultaneous	155	5775	16.05	17.50	1.396	88.14	1.135	0.16	0.285	0.452
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 18	DBS_Simultaneous	155	5775	14.44	16.00	1.432	88.14	1.135	0.19	0.068	0.111
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 18	DBS_Simultaneous	155	5775	14.44	16.00	1.432	88.14	1.135	0.01	0.113	0.184
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 18	DBS_Simultaneous	155	5775	14.44	16.00	1.432	88.14	1.135	-0.09	0.272	0.442
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 18	DBS_Simultaneous	155	5775	14.44	16.00	1.432	88.14	1.135	-0.01	0.078	0.127



15.3 Body Worn Accessory 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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
42	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 1	23095	707.5	24.36	25.50	1.300	-	-	-0.09	0.162	0.211
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 1	23095	707.5	24.36	25.50	1.300	-	-	0.11	0.157	0.204
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 1	23095	707.5	23.31	24.50	1.315	-	-	-0.14	0.125	0.164
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 1	23095	707.5	23.31	24.50	1.315	-	-	-0.14	0.119	0.157
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	23095	707.5	23.65	25.50	1.531	-	-	-0.07	0.076	0.116
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	23095	707.5	23.65	25.50	1.531	-	-	-0.11	0.081	0.124
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 3	23095	707.5	22.60	24.50	1.549	-	-	-0.18	0.068	0.105
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 3	23095	707.5	22.60	24.50	1.549	-	-	0.16	0.075	0.116
43	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 1	23230	782	24.51	25.50	1.256	-	-	-0.08	0.232	0.291
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 1	23230	782	24.51	25.50	1.256	-	-	0.14	0.215	0.270
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 1	23230	782	23.48	24.50	1.265	-	-	0.04	0.186	0.235
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 1	23230	782	23.48	24.50	1.265	-	-	0.13	0.178	0.225
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	23230	782	23.76	25.50	1.493	-	-	-0.13	0.140	0.209
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	23230	782	23.76	25.50	1.493	-	-	0.06	0.153	0.228
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 3	23230	782	22.67	24.50	1.524	-	-	-0.1	0.107	0.163
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 3	23230	782	22.67	24.50	1.524	-	-	-0.11	0.111	0.169
835MHz																				
44	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 0	DSI 1	189	836.4	26.78	28.00	1.324	-	-	0.09	0.202	0.268
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 0	DSI 1	189	836.4	26.78	28.00	1.324	-	-	0.17	0.186	0.246
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	DSI 3	189	836.4	26.23	27.50	1.340	-	-	-0.06	0.093	0.125
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	DSI 3	189	836.4	26.23	27.50	1.340	-	-	0.02	0.116	0.155
45	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 1	4182	836.4	24.09	25.00	1.233	-	-	0.02	0.266	0.328
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 1	4182	836.4	24.09	25.00	1.233	-	-	0.09	0.218	0.269
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI 3	4182	836.4	23.38	25.00	1.452	-	-	0.07	0.112	0.163
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI 3	4182	836.4	23.38	25.00	1.452	-	-	0.17	0.134	0.195
46	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 1	26865	831.5	24.57	25.50	1.239	-	-	-0.01	0.255	0.316
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 1	26865	831.5	24.57	25.50	1.239	-	-	0.18	0.237	0.294
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	DSI 1	26865	831.5	23.52	24.50	1.253	-	-	0.12	0.205	0.257
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	DSI 1	26865	831.5	23.52	24.50	1.253	-	-	0.05	0.183	0.229
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	26865	831.5	23.83	25.50	1.469	-	-	0.01	0.107	0.157
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	26865	831.5	23.83	25.50	1.469	-	-	0.03	0.129	0.189
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	DSI 3	26865	831.5	22.77	24.50	1.489	-	-	-0.06	0.086	0.128
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	DSI 3	26865	831.5	22.77	24.50	1.489	-	-	0.12	0.105	0.156
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI 3	1413	1732.6	23.11	24.50	1.377	-	-	0.05	0.215	0.296
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI 3	1413	1732.6	23.11	24.50	1.377	-	-	0.04	0.325	0.448
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 1	1413	1732.6	22.07	22.50	1.104	-	-	-0.07	0.213	0.235
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 1	1413	1732.6	22.07	22.50	1.104	-	-	-0.05	0.237	0.262
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 3	1413	1732.6	24.47	25.00	1.130	-	-	0.04	0.443	0.500
47	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	1413	1732.6	24.47	25.00	1.130	-	-	0.08	0.561	0.634
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 1	20175	1732.5	21.97	22.70	1.183	-	-	0.06	0.217	0.257
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 1	20175	1732.5	21.97	22.70	1.183	-	-	0.17	0.250	0.296
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	20175	1732.5	24.92	25.70	1.197	-	-	0.01	0.471	0.564
48	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	20175	1732.5	24.92	25.70	1.197	-	-	-0.05	0.517	0.619
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 1	20175	1732.5	21.95	22.70	1.189	-	-	-0.13	0.218	0.259
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 1	20175	1732.5	21.95	22.70	1.189	-	-	-0.18	0.244	0.290
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	20175	1732.5	23.97	24.70	1.183	-	-	0.11	0.356	0.421
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	20175	1732.5	23.97	24.70	1.183	-	-	-0.07	0.512	0.606
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 3	20175	1732.5	24.71	25.50	1.199	-	-	0.02	0.007	0.008
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 3	20175	1732.5	24.71	25.50	1.199	-	-	0.05	0.014	0.016
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 3	20175	1732.5	23.75	24.50	1.189	-	-	-0.03	0.009	0.011
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 3	20175	1732.5	23.75	24.50	1.189	-	-	0.04	0.015	0.017



FCC SAR Test Report

Report No. : FA350505-01

1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	DSI 3	661	1880	22.70	24.00	1.349	-	-	0.11	0.174	0.235
49	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	DSI 3	661	1880	22.70	24.00	1.349	-	-	-0.17	0.225	0.304
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 2	DSI 1	661	1880	24.05	25.00	1.245	-	-	-0.01	0.171	0.213
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 2	DSI 1	661	1880	24.05	25.00	1.245	-	-	-0.09	0.225	0.280
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI 3	9400	1880	23.14	24.50	1.368	-	-	0.03	0.327	0.447
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI 3	9400	1880	23.14	24.50	1.368	-	-	0.02	0.462	0.632
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 1	9400	1880	21.50	22.50	1.259	-	-	0.15	0.267	0.336
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 1	9400	1880	21.50	22.50	1.259	-	-	0.01	0.354	0.446
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 3	9400	1880	24.42	25.00	1.143	-	-	0.08	0.511	0.584
50	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	9400	1880	24.42	25.00	1.143	-	-	-0.05	0.728	0.832
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	9262	1852.4	24.21	25.00	1.199	-	-	0.02	0.688	0.825
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	9538	1907.6	24.38	25.00	1.153	-	-	-0.1	0.704	0.812
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 1	18900	1880	20.20	21.50	1.349	-	-	0.01	0.223	0.301
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 1	18900	1880	20.20	21.50	1.349	-	-	0.04	0.276	0.372
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	18900	1880	23.76	25.00	1.330	-	-	0.04	0.445	0.592
51	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	18900	1880	23.76	25.00	1.330	-	-	-0.02	0.636	0.846
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	18700	1860	23.65	25.00	1.365	-	-	0.05	0.583	0.796
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	19100	1900	23.75	25.00	1.334	-	-	0.04	0.589	0.785
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 1	18900	1880	20.12	21.50	1.374	-	-	-0.03	0.214	0.294
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 1	18900	1880	20.12	21.50	1.374	-	-	-0.04	0.264	0.363
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	18900	1880	22.75	24.00	1.334	-	-	0.04	0.432	0.576
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	18900	1880	22.75	24.00	1.334	-	-	0.08	0.612	0.816
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	18700	1860	22.67	24.00	1.358	-	-	0.08	0.561	0.762
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	19100	1900	22.74	24.00	1.337	-	-	0.04	0.567	0.758
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 3	18900	1880	23.51	24.50	1.256	-	-	-0.02	0.137	0.172
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 3	18900	1880	23.51	24.50	1.256	-	-	-0.19	0.202	0.254
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 3	18900	1880	22.50	23.50	1.259	-	-	-0.07	0.106	0.133
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 3	18900	1880	22.50	23.50	1.259	-	-	0.06	0.152	0.191
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 1	21100	2535	20.35	21.50	1.303	-	-	0.06	0.115	0.150
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 1	21100	2535	20.35	21.50	1.303	-	-	-0.04	0.257	0.335
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	21100	2535	24.55	25.50	1.245	-	-	0.04	0.379	0.472
52	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	21100	2535	24.55	25.50	1.245	-	-	0.05	0.672	0.836
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	20850	2510	24.52	25.50	1.253	-	-	0.05	0.615	0.771
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	21350	2560	24.47	25.50	1.268	-	-	0.05	0.643	0.815
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 1	21100	2535	20.34	21.50	1.306	-	-	-0.06	0.171	0.223
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 1	21100	2535	20.34	21.50	1.306	-	-	-0.02	0.298	0.389
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	21100	2535	23.66	24.50	1.213	-	-	0.03	0.315	0.382
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	21100	2535	23.66	24.50	1.213	-	-	0.05	0.542	0.658
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 3	21100	2535	21.59	22.50	1.233	-	-	-0.06	0.159	0.196
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 3	21100	2535	21.59	22.50	1.233	-	-	0.01	0.197	0.243
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 3	21100	2535	21.56	22.50	1.242	-	-	-0.11	0.166	0.206
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 3	21100	2535	21.56	22.50	1.242	-	-	-0.04	0.206	0.256
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	40620	2593	23.68	24.50	1.208	62.9	1.006	0.12	0.129	0.157
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	40620	2593	23.68	24.50	1.208	62.9	1.006	-0.04	0.245	0.298
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	40620+0422	2593+2573.2	22.64	24.50	1.535	62.9	1.006	0.13	0.225	0.347
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI 3	40620	2593	22.82	23.50	1.169	62.9	1.006	-0.13	0.109	0.128
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	40620	2593	22.82	23.50	1.169	62.9	1.006	0.1	0.204	0.240
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 1	40620	2593	23.44	24.20	1.191	62.9	1.006	0.05	0.161	0.193
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 1	40620	2593	23.44	24.20	1.191	62.9	1.006	-0.04	0.333	0.399
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	40620	2593	24.75	25.70	1.245	62.9	1.006	0.05	0.275	0.344
53	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	40620	2593	24.75	25.70	1.245	62.9	1.006	0.04	0.486	0.608
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	40620+40422	2593+2573.2	24.26	25.70	1.393	62.9	1.006	-0.03	0.412	0.577
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	39750	2506	24.72	25.70	1.253	62.9	1.006	-0.06	0.418	0.527
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	40185	2549.5	24.66	25.70	1.271	62.9	1.006	0.1	0.432	0.552
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	41055	2636.5	24.45	25.70	1.334	62.9	1.006	0.03	0.441	0.592
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	41490	2680	24.74	25.70	1.247	62.9	1.006	0.12	0.407	0.511



FCC SAR Test Report

Report No. : FA350505-01

	FR1 n78_Par27Q	100M	QPSK	1	137	DFT-30	Back	15mm	Ant 6	DSI 1/3	633332	3499.98	18.08	20.00	1.556	-	-	-0.16	0.095	0.148
	FR1 n78_Par27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	DSI 1/3	633332	3499.98	18.06	20.00	1.563	-	-	0.18	0.129	0.202
	FR1 n78_Par27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	DSI 1/3	633332	3499.98	18.06	20.00	1.563	-	-	0.14	0.121	0.189
	FR1 n78_Par27Q	100M	QPSK	1	137	DFT-30	Front	15mm	Ant 7	DSI 3	650000	3750	20.62	22.50	1.542	-	-	-	n/a	n/a
	FR1 n78_Par27Q	100M	QPSK	1	137	DFT-30	Back	15mm	Ant 7	DSI 3	650000	3750	20.62	22.50	1.542	-	-	-0.18	0.222	0.342
	FR1 n78_Par27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	DSI 3	650000	3750	20.59	22.50	1.552	-	-	-	n/a	n/a
	FR1 n78_Par27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	DSI 3	650000	3750	20.59	22.50	1.552	-	-	-0.01	0.230	0.357
	FR1 n78_Par27Q	100M	QPSK	1	137	DFT-30	Front	15mm	Ant 7	DSI 3	633332	3499.98	20.13	21.50	1.371	-	-	-	n/a	n/a
	FR1 n78_Par27Q	100M	QPSK	1	137	DFT-30	Back	15mm	Ant 7	DSI 3	633332	3499.98	20.13	21.50	1.371	-	-	0.14	0.653	0.895
	FR1 n78_Par27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	DSI 3	633332	3499.98	20.12	21.50	1.374	-	-	-	n/a	n/a
57	FR1 n78_Par27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	DSI 3	633332	3499.98	20.12	21.50	1.374	-	-	-0.09	0.702	0.965
	FR1 n78_Par27Q	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 7	DSI 3	633332	3499.98	20.08	21.50	1.387	-	-	-0.16	0.663	0.919



15.4 Product specific 10g 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	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	1413	1732.6	22.07	22.50	1.104	-	-	0.02	2.190	2.418
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	1312	1712.4	22.01	22.50	1.119	-	-	0.1	2.180	2.440
63	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	1513	1752.6	21.95	22.50	1.135	-	-	0.07	2.260	2.565
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 1	1413	1732.6	22.07	22.50	1.104	-	-	-0.15	1.820	2.009
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 1	1312	1712.4	22.01	22.50	1.119	-	-	0.03	1.650	1.847
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 1	1513	1752.6	21.95	22.50	1.135	-	-	0.07	1.950	2.213
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	1513	1752.6	24.45	25.00	1.135	-	-	0.05	0.336	0.381
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	15mm	Ant 2	DSI 3	1513	1752.6	24.45	25.00	1.135	-	-	0.04	0.470	0.533
64	LTE Band 4	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	20175	1732.5	21.97	22.70	1.183	-	-	0.11	2.170	2.567
	LTE Band 4	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	20050	1720	21.85	22.70	1.216	-	-	0.08	1.930	2.347
	LTE Band 4	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	20300	1745	21.91	22.70	1.199	-	-	0.06	2.050	2.459
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	20175	1732.5	21.97	22.70	1.183	-	-	-0.03	1.780	2.106
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	20050	1720	21.85	22.70	1.216	-	-	-0.07	1.650	2.007
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	20300	1745	21.91	22.70	1.199	-	-	-0.05	1.720	2.063
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	20175	1732.5	24.92	25.70	1.197	-	-	0.05	0.329	0.394
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	15mm	Ant 2	DSI 3	20175	1732.5	24.92	25.70	1.197	-	-	0.01	0.443	0.530
	LTE Band 4	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	20175	1732.5	21.95	22.70	1.189	-	-	0.02	2.140	2.543
	LTE Band 4	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	20050	1720	21.77	22.70	1.239	-	-	0.12	1.830	2.267
	LTE Band 4	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	20300	1745	21.89	22.70	1.205	-	-	-0.02	1.920	2.314
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	20175	1732.5	21.95	22.70	1.189	-	-	0.09	1.770	2.104
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	20050	1720	21.77	22.70	1.239	-	-	0.12	1.610	1.994
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	20300	1745	21.89	22.70	1.205	-	-	0.02	1.690	2.037
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	20175	1732.5	23.97	24.70	1.183	-	-	0.11	0.254	0.300
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	15mm	Ant 2	DSI 3	20175	1732.5	23.97	24.70	1.183	-	-	-0.05	0.335	0.396
	LTE Band 4	20M	QPSK	100	0	-	Back	0mm	Ant 2	DSI 1	20175	1732.5	21.89	22.70	1.205	-	-	-0.01	2.080	2.506
	LTE Band 4	20M	QPSK	100	0	-	Bottom Side	0mm	Ant 2	DSI 1	20175	1732.5	21.89	22.70	1.205	-	-	0.01	1.740	2.097
1900MHz																				
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 1	9400	1880	21.66	23.00	1.361	-	-	-0.01	1.610	2.192
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 1	9262	1852.4	21.53	23.00	1.403	-	-	-0.02	1.530	2.146
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 1	9538	1907.6	21.61	23.00	1.377	-	-	-0.09	1.580	2.176
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 1	9400	1880	21.66	23.00	1.361	-	-	-0.04	1.750	2.383
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 1	9262	1852.4	21.53	23.00	1.403	-	-	0.06	1.530	2.146
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 1	DSI 1	9538	1907.6	21.61	23.00	1.377	-	-	0.11	1.730	2.383
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 3	9400	1880	23.14	24.50	1.368	-	-	0.03	0.750	1.026
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	5mm	Ant 1	DSI 3	9400	1880	23.14	24.50	1.368	-	-	0.05	1.040	1.422
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	9400	1880	21.50	22.00	1.122	-	-	0.05	2.090	2.345
65	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	9262	1852.4	21.47	22.00	1.130	-	-	-0.08	2.280	2.576
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	9538	1907.6	21.44	22.00	1.138	-	-	-0.06	2.060	2.344
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 1	9400	1880	21.50	22.00	1.122	-	-	-0.14	1.750	1.964
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 1	9262	1852.4	21.47	22.00	1.130	-	-	0.13	1.730	1.955
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 1	9538	1907.6	21.44	22.00	1.138	-	-	0.03	1.720	1.957
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	9262	1852.4	24.21	25.00	1.199	-	-	0.04	0.356	0.427
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	15mm	Ant 2	DSI 3	9262	1852.4	24.21	25.00	1.199	-	-	0.08	0.475	0.570
	LTE Band 2	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	18900	1880	20.20	21.50	1.349	-	-	0.01	1.730	2.334
66	LTE Band 2	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	18700	1860	20.12	21.50	1.374	-	-	0.06	1.720	2.363



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 2	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	19100	1900	20.18	21.50	1.355	-	-	0.02	1.670	2.263
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	18900	1880	20.20	21.50	1.349	-	-	-0.11	1.430	1.929
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	18700	1860	23.65	25.00	1.365	-	-	0.01	0.327	0.446
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	15mm	Ant 2	DSI 3	18700	1860	23.65	25.00	1.365	-	-	-0.07	0.467	0.637
	LTE Band 2	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	18900	1880	20.12	21.50	1.374	-	-	0.03	1.690	2.322
	LTE Band 2	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	18700	1860	20.01	21.50	1.409	-	-	-0.05	1.560	2.198
	LTE Band 2	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	19100	1900	20.09	21.50	1.384	-	-	-0.09	1.700	2.352
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	18900	1880	20.12	21.50	1.374	-	-	0.05	1.360	1.869
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	18700	1860	22.75	24.00	1.334	-	-	0.01	0.245	0.327
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	15mm	Ant 2	DSI 3	18700	1860	22.75	24.00	1.334	-	-	-0.05	0.357	0.476
	LTE Band 2	20M	QPSK	100	0	-	Back	0mm	Ant 2	DSI 1	18900	1880	20.07	21.50	1.390	-	-	0.01	1.650	2.293
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	21100	2535	20.35	21.50	1.303	-	-	-0.04	1.640	2.137
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	20850	2510	20.15	21.50	1.365	-	-	0.14	1.560	2.129
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 1	21350	2560	20.19	21.50	1.352	-	-	-0.06	1.650	2.231
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	21100	2535	20.35	21.50	1.303	-	-	0.12	1.590	2.072
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	20850	2510	20.15	21.50	1.365	-	-	-0.12	1.660	2.265
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	21350	2560	20.19	21.50	1.352	-	-	-0.13	1.480	2.001
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	21350	2560	24.47	25.50	1.268	-	-	0.05	0.323	0.409
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	15mm	Ant 2	DSI 3	20850	2510	24.52	25.50	1.253	-	-	0.07	0.349	0.437
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	21100	2535	20.34	21.50	1.306	-	-	0.07	1.780	2.325
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	20850	2510	20.09	21.50	1.384	-	-	0.02	1.750	2.421
67	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 1	21350	2560	20.16	21.50	1.361	-	-	0.04	1.850	2.519
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	21100	2535	20.34	21.50	1.306	-	-	0.15	1.630	2.129
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	20850	2510	20.09	21.50	1.384	-	-	0.14	1.670	2.311
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	21350	2560	20.16	21.50	1.361	-	-	-0.02	1.510	2.056
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	21350	2560	23.51	24.50	1.256	-	-	0.02	0.235	0.295
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	15mm	Ant 2	DSI 3	20850	2510	23.62	24.50	1.225	-	-	-0.03	0.248	0.304
	LTE Band 7	20M	QPSK	100	0	-	Back	0mm	Ant 2	DSI 1	21100	2535	20.24	21.50	1.337	-	-	-0.01	1.770	2.366
	LTE Band 7	20M	QPSK	100	0	-	Bottom Side	0mm	Ant 2	DSI 1	21100	2535	20.24	21.50	1.337	-	-	0.04	1.530	2.045
	LTE Band 7	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	21100	2535	21.59	22.50	1.233	-	-	0.02	1.180	1.455
	LTE Band 7	20M	QPSK	50	0	-	Right Side	0mm	Ant 4	DSI 3	21100	2535	21.56	22.50	1.242	-	-	0.01	1.130	1.403
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	40620	2593	23.44	24.20	1.191	62.9	1.006	0.02	1.540	1.846
	LTE Band 41C	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	40620+40422	2593+2573.2	22.79	24.20	1.384	62.9	1.006	0.03	1.300	1.809
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	39750	2506	23.39	24.20	1.205	62.9	1.006	0.08	1.430	1.734
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	40185	2549.5	23.35	24.20	1.216	62.9	1.006	-0.08	1.510	1.847
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	41055	2636.5	23.31	24.20	1.227	62.9	1.006	-0.08	1.370	1.692
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	41490	2680	23.25	24.20	1.245	62.9	1.006	-0.05	1.310	1.640
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	15mm	Ant 2	DSI 3	40620	2593	24.75	25.70	1.245	62.9	1.006	0.01	0.277	0.347
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	40620	2593	23.38	24.20	1.208	62.9	1.006	-0.1	1.490	1.810
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	39750	2506	23.31	24.20	1.227	62.9	1.006	-0.13	1.310	1.618
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	40185	2549.5	23.32	24.20	1.225	62.9	1.006	-0.03	1.410	1.737
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	41055	2636.5	23.28	24.20	1.236	62.9	1.006	-0.08	1.270	1.579
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	41490	2680	23.21	24.20	1.256	62.9	1.006	-0.11	1.250	1.579
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	15mm	Ant 2	DSI 3	40620	2593	23.93	24.70	1.194	62.9	1.006	0.09	0.210	0.252
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	0mm	Ant 2	DSI 1	40620	2593	23.35	24.20	1.216	62.9	1.006	0.03	1.340	1.639
	LTE Band 41	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	40620	2593	23.44	24.20	1.191	62.9	1.006	-0.09	1.520	1.822
68	LTE Band 41	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	39750	2506	23.35	24.20	1.216	62.9	1.006	0.14	1.560	1.909



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 41C	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	39750+39948	2506+2525.8	22.87	24.20	1.358	62.9	1.006	0.14	1.010	1.380
	LTE Band 41	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	40185	2549.5	23.41	24.20	1.199	62.9	1.006	-0.09	1.510	1.822
	LTE Band 41	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	41055	2636.5	23.33	24.20	1.222	62.9	1.006	-0.02	1.520	1.868
	LTE Band 41	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	41490	2680	23.28	24.20	1.236	62.9	1.006	-0.02	1.490	1.853
	LTE Band 41	20M	QPSK	50	0	-	Right Side	0mm	Ant 4	DSI 3	40620	2593	23.43	24.20	1.194	62.9	1.006	0.15	1.280	1.537
	LTE Band 41	20M	QPSK	50	0	-	Right Side	0mm	Ant 4	DSI 3	39750	2506	23.28	24.20	1.236	62.9	1.006	-0.11	1.320	1.641
	LTE Band 41	20M	QPSK	50	0	-	Right Side	0mm	Ant 4	DSI 3	40185	2549.5	23.36	24.20	1.213	62.9	1.006	-0.07	1.300	1.587
	LTE Band 41	20M	QPSK	50	0	-	Right Side	0mm	Ant 4	DSI 3	41055	2636.5	23.28	24.20	1.236	62.9	1.006	-0.04	1.250	1.554
	LTE Band 41	20M	QPSK	50	0	-	Right Side	0mm	Ant 4	DSI 3	41490	2680	23.23	24.20	1.250	62.9	1.006	0.17	1.170	1.472
	LTE Band 41	20M	QPSK	100	0	-	Right Side	0mm	Ant 4	DSI 3	40620	2593	23.33	24.20	1.222	62.9	1.006	0.08	1.520	1.868
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 2	DSI 1	518598	2592.99	20.27	21.20	1.239	-	-	-0.03	1.860	2.304
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	0mm	Ant 2	DSI 1	518598	2592.99	20.27	21.20	1.239	-	-	-0.07	1.400	1.734
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 2	DSI 3	518598	2592.99	24.61	25.70	1.285	-	-	0.05	0.363	0.467
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	15mm	Ant 2	DSI 3	518598	2592.99	24.61	25.70	1.285	-	-	0.04	0.369	0.474
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 2	DSI 1	518598	2592.99	20.15	21.20	1.274	-	-	0.01	1.780	2.267
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	0mm	Ant 2	DSI 1	518598	2592.99	20.15	21.20	1.274	-	-	-0.02	1.300	1.656
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 2	DSI 3	518598	2592.99	24.58	25.70	1.294	-	-	-0.06	0.358	0.463
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	15mm	Ant 2	DSI 3	518598	2592.99	24.58	25.70	1.294	-	-	-0.07	0.364	0.471
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 2	DSI 1	518598	2592.99	20.13	21.20	1.279	-	-	-0.03	1.740	2.226
	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Side	0mm	Ant 2	DSI 1	518598	2592.99	20.13	21.20	1.279	-	-	-0.03	1.270	1.625
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 3	DSI 1	518598	2592.99	21.57	23.00	1.390	-	-	0.12	1.710	2.377
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	5mm	Ant 3	DSI 3	518598	2592.99	23.67	25.00	1.358	-	-	-0.12	1.060	1.440
69	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 3	DSI 1	518598	2592.99	21.54	23.00	1.400	-	-	-0.02	1.830	2.561
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 3	DSI 3	518598	2592.99	23.58	25.00	1.387	-	-	-0.17	0.980	1.359
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 3	DSI 1	518598	2592.99	21.33	23.00	1.469	-	-	0.09	1.710	2.512
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 4	DSI 3	518598	2592.99	21.48	22.20	1.180	-	-	0.06	1.000	1.180
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 4	DSI 3	518598	2592.99	21.48	22.20	1.180	-	-	-0.15	1.380	1.629
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 4	DSI 3	518598	2592.99	21.42	22.20	1.197	-	-	-0.11	0.947	1.133
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 4	DSI 3	518598	2592.99	21.42	22.20	1.197	-	-	0.13	1.300	1.556
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Side	0mm	Ant 4	DSI 3	518598	2592.99	21.33	22.20	1.222	-	-	-0.15	1.310	1.601
3000-4000MHz																				
	LTE Band 42	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 1	42590	3500	21.42	22.50	1.282	62.9	1.006	-0.1	1.560	2.012
	LTE Band 42	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 1	42190	3460	21.37	22.50	1.297	62.9	1.006	-0.07	1.530	1.997
	LTE Band 42	20M	QPSK	1	0	-	Top Side	0mm	Ant 1	DSI 1	42990	3540	21.20	22.50	1.349	62.9	1.006	-0.08	1.570	2.131
	LTE Band 42	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	42590	3500	23.56	25.00	1.393	62.9	1.006	-0.16	1.230	1.724
	LTE Band 42	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	42190	3460	23.33	25.00	1.469	62.9	1.006	0.14	1.140	1.685
	LTE Band 42	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	42990	3540	23.50	25.00	1.413	62.9	1.006	0.03	1.190	1.691
	LTE Band 42	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 1	42590	3500	21.35	22.50	1.303	62.9	1.006	0.1	1.610	2.111
	LTE Band 42	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 1	42190	3460	21.31	22.50	1.315	62.9	1.006	-0.01	1.560	2.064
	LTE Band 42	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 1	42990	3540	21.10	22.50	1.380	62.9	1.006	0.04	1.670	2.319
	LTE Band 42C	20M	QPSK	50	0	-	Top Side	0mm	Ant 1	DSI 1	42990+42792	3540+3520.2	21.07	22.50	1.390	62.9	1.006	-0.04	1.420	1.986
	LTE Band 42	20M	QPSK	50	0	-	Top Side	5mm	Ant 1	DSI 3	42590	3500	22.60	24.00	1.380	62.9	1.006	-0.11	1.330	1.847
	LTE Band 42	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	42190	3460	22.52	24.00	1.406	62.9	1.006	0.14	1.140	1.613
	LTE Band 42	20M	QPSK	1	0	-	Top Side	5mm	Ant 1	DSI 3	42990	3540	22.58	24.00	1.387	62.9	1.006	0.03	1.190	1.660
	LTE Band 42	20M	QPSK	100	0	-	Top Side	0mm	Ant 1	DSI 1	42590	3500	21.31	22.50	1.315	62.9	1.006	-0.16	1.640	2.170
	LTE Band 42	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 3	42590	3500	22.06	23.00	1.242	62.9	1.006	0.07	1.630	2.036
	LTE Band 42	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 3	42190	3460	21.93	23.00	1.279	62.9	1.006	-0.02	1.620	2.085
	LTE Band 42	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 3	42990	3540	22.01	23.00	1.256	62.9	1.006	-0.01	1.660	2.098
	LTE Band 42C	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 3	42990+42792	3540+2520.2	21.83	23.00	1.309	62.9	1.006	0.11	1.500	1.976
	LTE Band 42	20M	QPSK	50	0	-	Top Side	0mm	Ant 5	DSI 3	42590	3500	22.03	23.00	1.250	62.9	1.006	-0.04	1.680	2.113
	LTE Band 42	20M	QPSK	50	0	-	Top Side	0mm	Ant 5	DSI 3	42190	3460	21.89	23.00	1.291	62.9	1.006	0.09	1.640	2.130
	LTE Band 42	20M	QPSK	50	0	-	Top Side	0mm	Ant 5	DSI 3	42990	3540	21.93	23.00	1.279	62.9	1.006	0.1	1.710	2.201
	LTE Band 42	20M	QPSK	100	0	-	Top Side	0mm	Ant 5	DSI 3	42590	3500	21.99	23.00	1.262	62.9	1.006	0.02	1.660	2.107
	LTE Band 42	20M	QPSK	1	0	-	Front	0mm	Ant 6	DSI 3	42590	3500	19.99	21.50	1.416	62.9	1.006	-0.15	1.200	1.709



FCC SAR Test Report

Report No. : FA350505-01

	LTE Band 42	20M	QPSK	1	0	-	Back	0mm	Ant 6	DSI 3	42590	3500	19.99	21.50	1.416	62.9	1.006	0.15	0.384	0.547
	LTE Band 42	20M	QPSK	1	0	-	Right Side	0mm	Ant 6	DSI 3	42590	3500	19.99	21.50	1.416	62.9	1.006	0.04	1.540	2.193
70	LTE Band 42	20M	QPSK	1	0	-	Right Side	0mm	Ant 6	DSI 3	42190	3460	19.82	21.50	1.472	62.9	1.006	-0.08	1.690	2.503
	LTE Band 42C	20M	QPSK	1	0	-	Right Side	0mm	Ant 6	DSI 3	42190+42388	3460+3479.8	19.68	21.50	1.521	62.9	1.006	-0.08	1.610	2.463
	LTE Band 42	20M	QPSK	1	0	-	Right Side	0mm	Ant 6	DSI 3	42990	3540	19.95	21.50	1.429	62.9	1.006	-0.12	1.610	2.314
	LTE Band 42	20M	QPSK	1	0	-	Front	0mm	Ant 6	DSI 3	42190	3460	19.82	21.50	1.472	62.9	1.006	0.02	1.320	1.955
	LTE Band 42	20M	QPSK	1	0	-	Front	0mm	Ant 6	DSI 3	42990	3540	19.95	21.50	1.429	62.9	1.006	0.1	1.180	1.696
	LTE Band 42	20M	QPSK	50	0	-	Front	0mm	Ant 6	DSI 3	42590	3500	19.96	21.50	1.426	62.9	1.006	0.03	1.150	1.649
	LTE Band 42	20M	QPSK	50	0	-	Back	0mm	Ant 6	DSI 3	42590	3500	19.96	21.50	1.426	62.9	1.006	0.04	0.395	0.566
	LTE Band 42	20M	QPSK	50	0	-	Right Side	0mm	Ant 6	DSI 3	42590	3500	19.96	21.50	1.426	62.9	1.006	-0.04	1.510	2.166
	LTE Band 42	20M	QPSK	50	0	-	Right Side	0mm	Ant 6	DSI 3	42190	3460	19.74	21.50	1.500	62.9	1.006	-0.08	1.600	2.414
	LTE Band 42	20M	QPSK	50	0	-	Right Side	0mm	Ant 6	DSI 3	42990	3540	19.94	21.50	1.432	62.9	1.006	-0.05	1.550	2.233
	LTE Band 42	20M	QPSK	50	0	-	Front	0mm	Ant 6	DSI 3	42190	3460	19.74	21.50	1.500	62.9	1.006	0.04	1.270	1.916
	LTE Band 42	20M	QPSK	50	0	-	Front	0mm	Ant 6	DSI 3	42990	3540	19.94	21.50	1.432	62.9	1.006	-0.04	1.050	1.513
	LTE Band 42	20M	QPSK	100	0	-	Front	0mm	Ant 6	DSI 3	42590	3500	19.93	21.50	1.435	62.9	1.006	-0.04	1.230	1.776
	LTE Band 42	20M	QPSK	100	0	-	Right Side	0mm	Ant 6	DSI 3	42590	3500	19.93	21.50	1.435	62.9	1.006	0.04	1.530	2.209
	LTE Band 42	20M	QPSK	1	0	-	Back	0mm	Ant 7	DSI 1	42590	3500	16.95	18.00	1.274	62.9	1.006	0.04	1.020	1.307
	LTE Band 42	20M	QPSK	1	0	-	Left Side	0mm	Ant 7	DSI 1	42590	3500	16.95	18.00	1.274	62.9	1.006	-0.07	0.400	0.512
	LTE Band 42	20M	QPSK	1	0	-	Back	5mm	Ant 7	DSI 3	42590	3500	19.83	21.00	1.309	62.9	1.006	0.05	1.310	1.725
	LTE Band 42	20M	QPSK	1	0	-	Back	5mm	Ant 7	DSI 3	42190	3460	19.65	21.00	1.365	62.9	1.006	0.14	1.123	1.542
	LTE Band 42	20M	QPSK	1	0	-	Back	5mm	Ant 7	DSI 3	42990	3540	19.77	21.00	1.327	62.9	1.006	0.03	1.222	1.632
	LTE Band 42C	20M	QPSK	1	0	-	Back	5mm	Ant 7	DSI 3	42590+42788	3500+3519.8	19.60	21.00	1.380	62.9	1.006	0.05	1.110	1.541
	LTE Band 42	20M	QPSK	1	0	-	Left Side	5mm	Ant 7	DSI 3	42590	3500	19.83	21.00	1.309	62.9	1.006	0.09	0.256	0.337
	LTE Band 42	20M	QPSK	50	0	-	Back	0mm	Ant 7	DSI 1	42590	3500	16.86	18.00	1.300	62.9	1.006	0.09	1.190	1.556
	LTE Band 42	20M	QPSK	50	0	-	Back	0mm	Ant 7	DSI 1	42190	3460	16.79	18.00	1.321	62.9	1.006	0.04	1.020	1.356
	LTE Band 42	20M	QPSK	50	0	-	Back	0mm	Ant 7	DSI 1	42990	3540	16.85	18.00	1.303	62.9	1.006	-0.01	1.110	1.455
	LTE Band 42	20M	QPSK	50	0	-	Left Side	0mm	Ant 7	DSI 1	42590	3500	16.86	18.00	1.300	62.9	1.006	-0.11	0.393	0.514
	LTE Band 42	20M	QPSK	50	0	-	Back	5mm	Ant 7	DSI 3	42590	3500	19.75	21.00	1.334	62.9	1.006	0.02	1.200	1.610
	LTE Band 42	20M	QPSK	50	0	-	Back	5mm	Ant 7	DSI 3	42190	3460	19.64	21.00	1.368	62.9	1.006	-0.01	1.029	1.416
	LTE Band 42	20M	QPSK	50	0	-	Back	5mm	Ant 7	DSI 3	42990	3540	19.73	21.00	1.340	62.9	1.006	0.09	1.119	1.508
	LTE Band 42	20M	QPSK	50	0	-	Left Side	5mm	Ant 7	DSI 3	42590	3500	19.75	21.00	1.334	62.9	1.006	0.11	0.243	0.326
	LTE Band 42	20M	QPSK	100	0	-	Back	0mm	Ant 7	DSI 1	42590	3500	16.80	18.00	1.318	62.9	1.006	0.15	1.020	1.353
	FR1 n77_Par270	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 1	DSI 1	656000	3840	19.18	20.50	1.355	-	-	-0.06	1.280	1.735
71	FR1 n77_Par270	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 1	DSI 1	656000	3840	19.18	20.50	1.355	-	-	-0.13	1.830	2.480
	FR1 n77_Par270	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 1	DSI 3	656000	3840	23.65	25.00	1.365	-	-	0.03	0.937	1.279
	FR1 n77_Par270	100M	QPSK	1	137	DFT-30	Top Side	5mm	Ant 1	DSI 3	656000	3840	23.65	25.00	1.365	-	-	0.05	1.160	1.583
	FR1 n77_Par270	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 1	DSI 1	656000	3840	19.15	20.50	1.365	-	-	0.16	1.190	1.624
	FR1 n77_Par270	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 1	DSI 1	656000	3840	19.15	20.50	1.365	-	-	-0.15	1.810	2.470
	FR1 n77_Par270	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 1	DSI 3	656000	3840	23.54	25.00	1.400	-	-	-0.08	0.953	1.334
	FR1 n77_Par270	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 1	DSI 3	656000	3840	23.54	25.00	1.400	-	-	0.15	1.220	1.707
	FR1 n77_Par270	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 1	DSI 1	656000	3840	19.02	20.50	1.406	-	-	0.02	1.120	1.575
	FR1 n77_Par270	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 1	DSI 1	656000	3840	19.02	20.50	1.406	-	-	0.16	1.730	2.432
	FR1 n77_Par270	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	656000	3840	18.79	20.50	1.483	-	-	-0.01	1.370	2.031
	FR1 n77_Par270	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	656000	3840	18.75	20.50	1.496	-	-	-0.13	1.340	2.005
	FR1 n77_Par270	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 5	DSI 3	656000	3840	18.65	20.50	1.531	-	-	-0.01	1.420	2.174
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	19.19	20.50	1.352	-	-	-0.14	1.280	1.731
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	19.15	20.50	1.365	-	-	-0.09	1.310	1.788
	FR1 n77_Par27Q	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	19.17	20.50	1.358	-	-	-0.08	1.200	1.630
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	18.10	19.50	1.380	-	-	-0.18	1.390	1.919
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	18.05	19.50	1.396	-	-	-0.19	1.360	1.899
	FR1 n77_Par27Q	100M	QPSK	270	0	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	18.00	19.50	1.413	-	-	-0.09	1.240	1.752
	FR1 n77_Par270	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 7	DSI 1	656000	3840	15.36	17.00	1.459	-	-	0.09	0.616	0.899
	FR1 n77_Par270	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 7	DSI 3	656000	3840	20.77	22.50	1.489	-	-	0.04	0.751	1.119
	FR1 n77_Par270	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 1	656000	3840	15.25	17.00	1.496	-	-	0.18	0.648	0.970
	FR1 n77_Par270	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 7	DSI 3	656000	3840	20.73	22.50	1.503	-	-	0.13	0.963	1.448
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.61	16.00	1.377	-	-	-0.19	1.010	1.391



FCC SAR Test Report

Report No. : FA350505-01

	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Left Side	0mm	Ant 7	DSI 1	633332	3499.98	14.61	16.00	1.377	-	-	-0.14	0.281	0.387
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	20.10	21.50	1.380	-	-	0.1	1.250	1.725
	FR1 n77_Par27Q	100M	QPSK	1	137	DFT-30	Left Side	5mm	Ant 7	DSI 3	633332	3499.98	20.10	21.50	1.380	-	-	-0.17	0.374	0.516
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.54	16.00	1.400	-	-	0.12	1.120	1.568
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 7	DSI 1	633332	3499.98	14.54	16.00	1.400	-	-	-0.18	0.295	0.413
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	20.08	21.50	1.387	-	-	0.03	1.370	1.900
	FR1 n77_Par27Q	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 7	DSI 3	633332	3499.98	20.08	21.50	1.387	-	-	0.13	0.383	0.531
	FR1 n77_Par27Q	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.55	16.00	1.396	-	-	0.02	1.050	1.466
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 1	DSI 1	650000	3750	18.67	20.00	1.358	-	-	-0.04	1.120	1.521
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Side	0mm	Ant 1	DSI 1	650000	3750	18.67	20.00	1.358			0.05	0.875	1.189
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 1	DSI 1	650000	3750	18.67	20.00	1.358	-	-	-0.13	1.640	2.228
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 1	DSI 3	650000	3750	23.21	24.50	1.346	-	-	0.03	1.180	1.588
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Left Side	5mm	Ant 1	DSI 3	650000	3750	23.21	24.50	1.346			0.05	0.903	1.215
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	5mm	Ant 1	DSI 3	650000	3750	23.21	24.50	1.346	-	-	0.1	1.220	1.642
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 1	DSI 1	650000	3750	18.62	20.00	1.374	-	-	-0.19	1.150	1.580
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 1	DSI 1	650000	3750	18.62	20.00	1.374	-	-	0.06	0.887	1.219
72	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 1	DSI 1	650000	3750	18.62	20.00	1.374			-0.1	1.690	2.322
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 1	DSI 3	650000	3750	23.16	24.50	1.361	-	-	-0.14	0.987	1.344
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 1	DSI 3	650000	3750	23.16	24.50	1.361			0.09	0.885	1.205
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 1	DSI 3	650000	3750	23.16	24.50	1.361	-	-	-0.13	1.050	1.430
	FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 1	DSI 1	650000	3750	18.56	20.00	1.393	-	-	-0.13	1.600	2.229
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	650000	3750	18.75	20.50	1.496	-	-	0.06	1.450	2.170
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	650000	3750	18.73	20.50	1.503	-	-	-0.16	1.510	2.270
	FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 5	DSI 3	650000	3750	18.69	20.50	1.517	-	-	0.06	1.470	2.230
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	18.96	20.50	1.426	-	-	0.19	1.260	1.796
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	18.93	20.50	1.435	-	-	-0.01	1.240	1.780
	FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	18.86	20.50	1.459	-	-	-0.11	1.130	1.648
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Side	0mm	Ant 6	DSI 3	650000	3750	18.10	19.50	1.380	-	-	0.11	0.910	1.256
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	DSI 3	650000	3750	18.06	19.50	1.393	-	-	-0.19	0.950	1.323
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	18.08	19.50	1.387	-	-	-0.09	1.450	2.011
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	18.06	19.50	1.393	-	-	0.12	1.410	1.964
	FR1 n78_Part27Q	100M	QPSK	270	0	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	18.04	19.50	1.400	-	-	-0.09	1.340	1.875
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.60	16.00	1.380	-	-	0.08	0.973	1.343
	FR1 n78_Part27Q	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	20.13	21.50	1.371	-	-	-0.16	1.280	1.755
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.58	16.00	1.387	-	-	-0.1	1.030	1.428
	FR1 n78_Part27Q	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	20.12	21.50	1.374	-	-	0.05	1.130	1.553



<ENDC>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
2600MHz																				
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 1	40620	2593	21.71	22.70	1.256	62.9	1.006	-0.16	1.060	1.339
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	15mm	Ant 2	DSI 3	40620	2593	24.23	25.20	1.250	62.9	1.006	-0.19	0.277	0.348
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 1	40620	2593	21.65	22.70	1.274	62.9	1.006	0.12	1.050	1.345
	LTE Band 41	20M	QPSK	1	0	-	Right Side	0mm	Ant 4	DSI 3	40620	2593	22.71	23.20	1.119	62.9	1.006	0.17	1.040	1.171
	LTE Band 41	20M	QPSK	50	0	-	Right Side	0mm	Ant 4	DSI 3	40620	2593	22.66	23.20	1.132	62.9	1.006	-0.06	1.020	1.162
3000-4000MHz																				
	FR1 n77	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 1	DSI 1	656000	3840	16.51	18.00	1.409	-	-	-0.14	0.721	1.016
	FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 1	DSI 1	656000	3840	16.51	18.00	1.409	-	-	0.07	0.995	1.402
	FR1 n77	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 1	Full	656000	3840	23.65	25.00	1.365	-	-	-0.09	0.937	1.279
	FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	5mm	Ant 1	Full	656000	3840	23.65	25.00	1.365	-	-	-0.09	1.160	1.583
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 1	DSI 1	656000	3840	16.42	18.00	1.439	-	-	-0.11	0.655	0.942
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 1	DSI 1	656000	3840	16.42	18.00	1.439	-	-	-0.12	0.936	1.347
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 1	Full	656000	3840	23.54	25.00	1.400	-	-	0.16	0.953	1.334
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 1	Full	656000	3840	23.54	25.00	1.400	-	-	0.02	1.220	1.707
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 1	DSI 1	656000	3840	16.37	18.00	1.455	-	-	0.05	0.643	0.936
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 1	DSI 1	656000	3840	16.37	18.00	1.455	-	-	0.11	0.925	1.346
	FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	656000	3840	15.68	17.50	1.521	-	-	0.06	0.687	1.045
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	656000	3840	15.61	17.50	1.545	-	-	0.07	0.672	1.038
	FR1 n77	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	16.11	17.50	1.377	-	-	0.07	0.642	0.884
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	16.08	17.50	1.387	-	-	0.07	0.657	0.911
	FR1 n77	100M	QPSK	1	137	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	15.95	17.50	1.429	-	-	-0.14	0.877	1.253
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	15.83	17.50	1.469	-	-	-0.06	0.858	1.260
	FR1 n77	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 7	DSI 1	656000	3840	15.36	17.00	1.459	-	-	0.09	0.616	0.899
	FR1 n77	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 7	DSI 3	656000	3840	20.77	22.50	1.489	-	-	0.04	0.422	0.629
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 1	656000	3840	15.25	17.00	1.496	-	-	0.18	0.648	0.970
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 7	DSI 3	656000	3840	20.73	22.50	1.503	-	-	0.13	0.542	0.815
	FR1 n77	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.61	16.00	1.377	-	-	-0.19	1.010	1.391
	FR1 n77	100M	QPSK	1	137	DFT-30	Left Side	0mm	Ant 7	DSI 1	633332	3499.98	14.61	16.00	1.377	-	-	-0.14	0.281	0.387
	FR1 n77	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	20.10	21.50	1.380	-	-	0.1	0.703	0.970
	FR1 n77	100M	QPSK	1	137	DFT-30	Left Side	5mm	Ant 7	DSI 3	633332	3499.98	20.10	21.50	1.380	-	-	-0.17	0.210	0.290
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.54	16.00	1.400	-	-	0.12	1.120	1.568
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 7	DSI 1	633332	3499.98	14.54	16.00	1.400	-	-	-0.18	0.295	0.413
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	20.08	21.50	1.387	-	-	0.03	0.770	1.068
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 7	DSI 3	633332	3499.98	20.08	21.50	1.387	-	-	0.13	0.215	0.298
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 1	DSI 1	650000	3750	16.07	17.50	1.390	-	-	0.03	0.606	0.842
	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	0mm	Ant 1	DSI 1	650000	3750	16.07	17.50	1.390	-	-	0.01	0.488	0.678
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 1	DSI 1	650000	3750	16.07	17.50	1.390	-	-	-0.13	0.993	1.380
	FR1 n78	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 1	DSI 3	650000	3750	21.13	22.50	1.371	-	-	-0.19	0.745	1.021
	FR1 n78	100M	QPSK	1	137	DFT-30	Left Side	5mm	Ant 1	DSI 3	650000	3750	21.13	22.50	1.371	-	-	0.01	0.572	0.784
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	5mm	Ant 1	DSI 3	650000	3750	21.13	22.50	1.371	-	-	0.02	0.770	1.056
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 1	DSI 1	650000	3750	15.99	17.50	1.416	-	-	0.11	0.593	0.840
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 1	DSI 1	650000	3750	15.99	17.50	1.416	-	-	0.02	0.476	0.674
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 1	DSI 1	650000	3750	15.99	17.50	1.416	-	-	-0.03	0.954	1.351
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 1	DSI 3	650000	3750	21.12	22.50	1.374	-	-	0.17	0.623	0.856
	FR1 n78	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 1	DSI 3	650000	3750	21.12	22.50	1.374	-	-	0.01	0.534	0.734
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 1	DSI 3	650000	3750	21.12	22.50	1.374	-	-	0.02	0.663	0.911
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	650000	3750	16.07	18.00	1.560	-	-	-0.04	0.815	1.271
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	650000	3750	16.05	18.00	1.567	-	-	0.09	0.849	1.330
	FR1 n78	100M	QPSK	1	137	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	16.48	18.00	1.419	-	-	-0.13	0.709	1.006
	FR1 n78	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	DSI 3	633332	3499.98	16.36	18.00	1.459	-	-	0.08	0.697	1.017



FCC SAR Test Report

Report No. : FA350505-01

FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	0mm	Ant 6	DSI 3	650000	3750	16.00	17.50	1.413	-	-	0.03	0.574	0.811
FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	DSI 3	650000	3750	15.94	17.50	1.432	-	-	0.09	0.599	0.858
FR1 n78	100M	QPSK	1	137	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	15.90	17.50	1.445	-	-	0.05	0.915	1.323
FR1 n78	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	DSI 3	633332	3499.98	15.79	17.50	1.483	-	-	0.07	0.890	1.319
FR1 n78	100M	QPSK	1	137	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.60	16.00	1.380	-	-	0.08	0.973	1.343
FR1 n78	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	17.52	19.00	1.406	-	-	-0.17	0.720	1.012
FR1 n78	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 1	633332	3499.98	14.58	16.00	1.387	-	-	-0.1	1.030	1.428
FR1 n78	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 7	DSI 3	633332	3499.98	17.51	19.00	1.409	-	-	0.04	0.708	0.998

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 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WLAN/BT																
	WLAN5.3GHz	802.11ax-HE40 MCS0	Front	0mm	Ant 5+18	Standalone	54	5270	20.57	22.00	1.391	92.46	1.082	-0.01	0.788	1.186
	WLAN5.3GHz	802.11ax-HE40 MCS0	Back	0mm	Ant 5+18	Standalone	54	5270	20.57	22.00	1.391	92.46	1.082	-0.18	0.277	0.417
	WLAN5.3GHz	802.11ax-HE40 MCS0	Right Side	0mm	Ant 5+18	Standalone	54	5270	20.57	22.00	1.391	92.46	1.082	-0.19	0.960	1.445
73	WLAN5.3GHz	802.11ax-HE40 MCS0	Top Side	0mm	Ant 5+18	Standalone	54	5270	20.57	22.00	1.391	92.46	1.082	0.11	1.560	2.348
	WLAN5.3GHz	802.11ax-HE40 MCS0	Top Side	0mm	Ant 5+18	Standalone	62	5310	18.57	19.50	1.237	92.46	1.082	0.07	1.420	1.901
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 5+18	Simultaneous	58	5290	16.95	18.50	1.429	88.14	1.135	-0.01	0.352	0.571
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+18	Simultaneous	58	5290	16.95	18.50	1.429	88.14	1.135	-0.18	0.124	0.201
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+18	Simultaneous	58	5290	16.95	18.50	1.429	88.14	1.135	-0.19	0.429	0.696
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+18	Simultaneous	58	5290	16.95	18.50	1.429	88.14	1.135	0.11	0.674	1.093
	WLAN5.3GHz	802.11ax-HE40 MCS0	Front	0mm	Ant 18	DBS_Standalone	54	5270	17.79	19.50	1.483	92.46	1.082	0.1	0.674	1.082
	WLAN5.3GHz	802.11ax-HE40 MCS0	Back	0mm	Ant 18	DBS_Standalone	54	5270	17.79	19.50	1.483	92.46	1.082	-0.11	0.327	0.525
	WLAN5.3GHz	802.11ax-HE40 MCS0	Right Side	0mm	Ant 18	DBS_Standalone	54	5270	17.79	19.50	1.483	92.46	1.082	-0.09	1.130	1.813
	WLAN5.3GHz	802.11ax-HE40 MCS0	Top Side	0mm	Ant 18	DBS_Standalone	54	5270	17.79	19.50	1.483	92.46	1.082	-0.04	0.093	0.149
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 18	DBS_Simultaneous	54	5270	15.33	16.50	1.309	93.68	1.067	-0.13	0.379	0.529
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 18	DBS_Simultaneous	54	5270	15.33	16.50	1.309	93.68	1.067	-0.12	0.184	0.257
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 18	DBS_Simultaneous	54	5270	15.33	16.50	1.309	93.68	1.067	0.03	0.635	0.887
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 18	DBS_Simultaneous	54	5270	15.33	16.50	1.309	93.68	1.067	-0.07	0.052	0.073
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 5+18	Standalone	138	5690	18.88	20.50	1.452	88.14	1.135	-0.14	0.766	1.263
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+18	Standalone	138	5690	18.88	20.50	1.452	88.14	1.135	0.17	0.330	0.544
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+18	Standalone	138	5690	18.88	20.50	1.452	88.14	1.135	0.15	0.893	1.472
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+18	Standalone	138	5690	18.88	20.50	1.452	88.14	1.135	0.07	0.983	1.620
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 5+18	Simultaneous	138	5690	17.03	18.50	1.402	88.14	1.135	0.16	0.442	0.703
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+18	Simultaneous	138	5690	17.03	18.50	1.402	88.14	1.135	-0.01	0.234	0.372
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+18	Simultaneous	138	5690	17.03	18.50	1.402	88.14	1.135	-0.19	0.582	0.926
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+18	Simultaneous	138	5690	17.03	18.50	1.402	88.14	1.135	-0.04	0.691	1.100
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 18	DBS_Standalone	122	5610	15.80	17.50	1.480	88.14	1.135	0.19	0.732	1.229
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 18	DBS_Standalone	122	5610	15.80	17.50	1.480	88.14	1.135	-0.03	0.231	0.388
74	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 18	DBS_Standalone	122	5610	15.80	17.50	1.480	88.14	1.135	-0.02	1.030	1.730
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 18	DBS_Standalone	122	5610	15.80	17.50	1.480	88.14	1.135	-0.08	0.120	0.202
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 18	DBS_Simultaneous	122	5610	14.67	16.50	1.524	88.14	1.135	0.08	0.581	1.005
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 18	DBS_Simultaneous	122	5610	14.67	16.50	1.524	88.14	1.135	-0.11	0.183	0.317
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 18	DBS_Simultaneous	122	5610	14.67	16.50	1.524	88.14	1.135	0.12	0.675	1.168
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 18	DBS_Simultaneous	122	5610	14.67	16.50	1.524	88.14	1.135	-0.01	0.095	0.164
	WLAN5.8GHz	802.11ax-HE80 MCS0	Right Side	0mm	Ant 5+18	Standalone	155	5775	21.02	22.50	1.407	86.84	1.152	-0.05	1.210	1.961
75	WLAN5.8GHz	802.11ax-HE80 MCS0	Top Side	0mm	Ant 5+18	Standalone	155	5775	21.02	22.50	1.407	86.84	1.152	-0.12	1.290	2.090
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+18	Simultaneous	155	5775	17.98	19.00	1.266	88.14	1.135	-0.05	0.680	0.977
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+18	Simultaneous	155	5775	17.98	19.00	1.266	88.14	1.135	-0.03	0.725	1.042

15.5 Repeated SAR Measurement

<1g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	18900	1880	23.51	24.50	1.256	-	-	0.08	0.858	1	1.078
2nd	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 0	18900	1880	23.51	24.50	1.256	-	-	0.04	0.813	1.056	1.021
1st	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	518598	2592.99	18.78	19.70	1.236	-	-	-0.09	0.876	1	1.083
2nd	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	518598	2592.99	18.78	19.70	1.236	-	-	0.05	0.833	1.051	1.030
1st	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 0	42190	3460	19.65	20.50	1.216	62.9	1.006	0.01	0.894	1	1.094
2nd	LTE Band 42	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 0	42190	3460	19.65	20.50	1.216	62.9	1.006	-0.03	0.871	1.026	1.066
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	9538	1907.6	21.44	22.00	1.138	-	-	0.18	0.920	1	1.047
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 4	9538	1907.6	21.44	22.00	1.138	-	-	-0.03	0.875	1.052	0.995

<10g>

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 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	1513	1752.6	21.95	22.50	1.135	-	-	0.07	2.260	1	2.565
2nd	WCDMA IV	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	1513	1752.6	21.95	22.50	1.135	-	-	0.05	2.140	1.056	2.429
1st	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	9262	1852.4	21.47	22.00	1.130	-	-	-0.08	2.280	1	2.576
2nd	WCDMA II	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 1	9262	1852.4	21.47	22.00	1.130	-	-	-0.08	2.080	1.096	2.350

General Note:

- Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
- Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR < 1.45 W/kg, only one repeated measurement is required.
- 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.
- The ratio is the difference in percentage between original and repeated *measured* SAR.
- All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN 2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN 5GHz	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	WLAN 5GHz SISO(ANT5) /MIMO + Bluetooth	Yes	Yes	Yes	Yes
5.	WLAN 2.4GHz SISO(ANT6)/MIMO + Bluetooth	Yes	Yes	Yes	Yes
6.	WLAN 2.4GHz SISO (ANT17)+ WLAN 5GHz SISO (ANT18)	Yes	Yes	Yes	Yes
7.	WWAN + WLAN 5GHz SISO(ANT5) /MIMO + Bluetooth	Yes	Yes	Yes	Yes
8.	WWAN + WLAN 2.4GHz SISO(ANT6)/MIMO + Bluetooth	Yes	Yes	Yes	Yes
9.	WWAN + WLAN 2.4GHz SISO (ANT17) + WLAN 5GHz SISO (ANT18)	Yes	Yes	Yes	Yes
10.	WWAN + WLAN 2.4GHz + NFC				Yes
11.	WWAN + WLAN 5GHz + NFC				Yes
12.	WWAN + Bluetooth + NFC				Yes
13.	WLAN 5GHz SISO(ANT5) /MIMO + Bluetooth + NFC				Yes
14.	WLAN 2.4GHz SISO(ANT6)/MIMO + Bluetooth + NFC				Yes
15.	WLAN 2.4GHz SISO (ANT17) + WLAN 5GHz SISO (ANT18) + NFC				Yes
16.	WWAN + WLAN 5GHz SISO(ANT5) /MIMO + Bluetooth + NFC				Yes
17.	WWAN + WLAN 2.4GHz SISO(ANT6)/MIMO + Bluetooth + NFC				Yes
18.	WWAN + WLAN 2.4GHz SISO (ANT17) + WLAN 5GHz SISO (ANT18) + NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- WWAN above includes 5G NR bands and EN-DC combination.
- The 2.4GHz/5GHz WLAN can transmit in SISO and MIMO antenna mode.
- EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only).
- According to the EUT characteristic, WLAN5GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz ant18 and WLAN 2.4GHz ant17 can transmit simultaneously, WLAN 5GHz ant5/MIMO and WLAN 2.4GHz ant6/MIMO cannot transmit simultaneously.
- According to the EUT characteristic, WLAN 2.4GHz Ant17 and Bluetooth share the same antenna and they cannot transmit simultaneously each other, and WLAN 2.4GHz Ant6 and Bluetooth can transmit simultaneously.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
- For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each bands.
- For EN-DC SAR co-located with WLAN/Bluetooth, chose the worst SAR among all LTE Bands within the selected antenna per each test position and also the worst SAR of all 5GNR Bands within the selected antenna to do co-located with WLAN/Bluetooth. This is the worst co-located analysis and can represent each LTE bands and each 5GNR bands.
- The maximum SAR summation is calculated based on the same configuration and test position.
- For simultaneously analysis, since the SAR summation of 3 transmitters can cover others combination of 2 transmitters, therefore in this section did not additional to evaluate 2TX combination of simultaneously transmission.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is

determined from the square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.

- iii) If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
- iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.

16.1 Head Exposure Conditions

Exposure Position	6	13	6+13
	WLAN2.4GHz Ant 17	WLAN5GHz Ant 18	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Right Cheek	0.346	0.361	0.71
Right Tilted	0.421	0.175	0.60
Left Cheek	0.310	1.086	1.40
Left Tilted	0.387	0.378	0.77

WWAN Band	Exposure Position	1	6	13	17	1+6+17	1+13+17
		WWAN	WLAN2.4GHz Ant 6+17	WLAN5GHz Ant 5+18	Bluetooth Ant 17	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Ant 0	Right Cheek	0.268	0.287	0.193	0.078	0.63	0.54
	Right Tilted	0.156	0.326	0.221	0.121	0.60	0.50
	Left Cheek	0.290	0.419	0.355	0.093	0.80	0.74
	Left Tilted	0.126	0.308	0.371	0.112	0.55	0.61
Ant 1	Right Cheek	1.085	0.287	0.193	0.078	1.45	1.36
	Right Tilted	1.077	0.326	0.221	0.121	1.52	1.42
	Left Cheek	0.587	0.419	0.355	0.093	1.10	1.04
	Left Tilted	0.584	0.308	0.371	0.112	1.00	1.07
Ant 2	Right Cheek	0.263	0.287	0.193	0.078	0.63	0.53
	Right Tilted	0.173	0.326	0.221	0.121	0.62	0.52
	Left Cheek	0.428	0.419	0.355	0.093	0.94	0.88
	Left Tilted	0.174	0.308	0.371	0.112	0.59	0.66
Ant 3	Right Cheek	1.088	0.287	0.193	0.078	1.45	1.36
	Right Tilted	0.362	0.326	0.221	0.121	0.81	0.70
	Left Cheek	0.908	0.419	0.355	0.093	1.42	1.36
	Left Tilted	0.204	0.308	0.371	0.112	0.62	0.69
Ant 4	Right Cheek	1.083	0.287	0.193	0.078	1.45	1.35
	Right Tilted	0.160	0.326	0.221	0.121	0.61	0.50
	Left Cheek	1.078	0.400	0.355	0.093	1.57	1.53
	Left Tilted	0.242	0.308	0.371	0.112	0.66	0.73
Ant 5	Right Cheek	0.545	0.287	0.193	0.078	0.91	0.82
	Right Tilted	0.664	0.326	0.221	0.121	1.11	1.01
	Left Cheek	0.983	0.419	0.355	0.093	1.50	1.43
	Left Tilted	1.094	0.308	0.371	0.112	1.51	1.58
Ant 6	Right Cheek	0.223	0.287	0.193	0.078	0.59	0.49
	Right Tilted	0.162	0.326	0.221	0.121	0.61	0.50
	Left Cheek	1.082	0.419	0.355	0.093	1.59	1.53
	Left Tilted	0.420	0.308	0.371	0.112	0.84	0.90
Ant 7	Right Cheek	0.713	0.287	0.193	0.078	1.08	0.98
	Right Tilted	0.402	0.326	0.221	0.121	0.85	0.74
	Left Cheek	0.350	0.419	0.355	0.093	0.86	0.80
	Left Tilted	0.176	0.308	0.371	0.112	0.60	0.66

WWAN Band	Exposure Position	1	6	13	1+6+13
		WWAN	WLAN2.4GHz Ant 17	WLAN5GHz Ant 18	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Ant 0	Right Cheek	0.268	0.212	0.091	0.57
	Right Tilted	0.156	0.266	0.043	0.47
	Left Cheek	0.290	0.170	0.327	0.79
	Left Tilted	0.126	0.188	0.093	0.41
Ant 1	Right Cheek	1.085	0.212	0.091	1.39
	Right Tilted	1.077	0.266	0.043	1.39
	Left Cheek	0.587	0.170	0.327	1.08
	Left Tilted	0.584	0.188	0.093	0.87
Ant 2	Right Cheek	0.263	0.212	0.091	0.57
	Right Tilted	0.173	0.266	0.043	0.48
	Left Cheek	0.428	0.170	0.327	0.93
	Left Tilted	0.174	0.188	0.093	0.46
Ant 3	Right Cheek	1.088	0.212	0.091	1.39
	Right Tilted	0.362	0.266	0.043	0.67
	Left Cheek	0.908	0.170	0.327	1.41
	Left Tilted	0.204	0.188	0.093	0.49
Ant 4	Right Cheek	1.083	0.212	0.091	1.39
	Right Tilted	0.160	0.266	0.043	0.47
	Left Cheek	1.078	0.170	0.327	1.58
	Left Tilted	0.242	0.188	0.093	0.52
Ant 5	Right Cheek	0.545	0.212	0.091	0.85
	Right Tilted	0.664	0.266	0.043	0.97
	Left Cheek	0.983	0.170	0.327	1.48
	Left Tilted	1.094	0.188	0.093	1.38
Ant 6	Right Cheek	0.223	0.212	0.091	0.53
	Right Tilted	0.162	0.266	0.043	0.47
	Left Cheek	1.082	0.170	0.327	1.58
	Left Tilted	0.420	0.188	0.093	0.70
Ant 7	Right Cheek	0.713	0.212	0.091	1.02
	Right Tilted	0.402	0.266	0.043	0.71
	Left Cheek	0.350	0.170	0.327	0.85
	Left Tilted	0.176	0.188	0.093	0.46

<EN-DC>

WWAN Band	FR1 Band	Exposure Position	1	2	5	6	12	13	17	1+2+6+17	1+2+13+17	1+2+5+12
			WWAN	FR1	WLAN2.4GHz Ant 17	WLAN2.4GHz Ant 6+17	WLAN5GHz Ant 18	WLAN5GHz Ant 5+18	Bluetooth Ant 17	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All LTE	All NR	Right Cheek	0.530	0.528	0.212	0.287	0.091	0.193	0.078	1.42	1.33	1.36
		Right Tilted	0.316	0.515	0.266	0.326	0.043	0.221	0.121	1.28	1.17	1.14
		Left Cheek	0.450	0.523	0.170	0.419	0.327	0.355	0.093	1.49	1.42	1.47
		Left Tilted	0.182	0.535	0.188	0.308	0.093	0.371	0.112	1.14	1.20	1.00



16.2 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	3	10	17	1+3+17	1+10+17
		WWAN	WLAN2.4GHz Ant 6+17	WLAN5GHz Ant 5+18	Bluetooth Ant 17	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Ant 0	Front	0.587	0.216	0.144	0.081	0.88	0.81
	Back	0.505	0.308	0.187	0.216	1.03	0.91
	Left side					0.00	0.00
	Right side	0.242	0.581	0.314		0.82	0.56
	Top side		0.335	0.452	0.158	0.49	0.61
	Bottom side	0.299				0.30	0.30
Ant 1	Front	0.245	0.216	0.144	0.081	0.54	0.47
	Back	0.456	0.308	0.187	0.216	0.98	0.86
	Left side	0.393				0.39	0.39
	Right side		0.581	0.314		0.58	0.31
	Top side	0.749	0.335	0.452	0.158	1.24	1.36
	Bottom side					0.00	0.00
Ant 2	Front	0.567	0.216	0.144	0.081	0.86	0.79
	Back	0.787	0.308	0.187	0.216	1.31	1.19
	Left side	0.251				0.25	0.25
	Right side		0.581	0.314		0.58	0.31
	Top side		0.335	0.452	0.158	0.49	0.61
	Bottom side	1.047				1.05	1.05
Ant 3	Front	0.310	0.216	0.144	0.081	0.61	0.54
	Back	0.238	0.308	0.187	0.216	0.76	0.64
	Left side	0.640				0.64	0.64
	Right side		0.581	0.314		0.58	0.31
	Top side	0.066	0.335	0.452	0.158	0.56	0.68
	Bottom side					0.00	0.00
Ant 4	Front	0.348	0.216	0.144	0.081	0.65	0.57
	Back	0.523	0.308	0.187	0.216	1.05	0.93
	Left side					0.00	0.00
	Right side	0.857	0.581	0.314		1.44	1.17
	Top side	0.056	0.335	0.452	0.158	0.55	0.67
	Bottom side					0.00	0.00
Ant 5	Front	0.163	0.216	0.144	0.081	0.46	0.39
	Back	0.224	0.308	0.187	0.216	0.75	0.63
	Left side					0.00	0.00
	Right side	0.151	0.581	0.314		0.73	0.47
	Top side	0.448	0.335	0.452	0.158	0.94	1.06
	Bottom side					0.00	0.00
Ant 6	Front	0.332	0.216	0.144	0.081	0.63	0.56
	Back	0.328	0.308	0.187	0.216	0.85	0.73
	Left side					0.00	0.00
	Right side	0.612	0.581	0.314		1.19	0.93
	Top side	0.123	0.335	0.452	0.158	0.62	0.73
	Bottom side					0.00	0.00
Ant 7	Front	0.039	0.216	0.144	0.081	0.34	0.26
	Back	1.057	0.308	0.187	0.216	1.58	1.46
	Left side	0.231				0.23	0.23
	Right side		0.581	0.314		0.58	0.31
	Top side		0.335	0.452	0.158	0.49	0.61
	Bottom side					0.00	0.00

WWAN Band	Exposure Position	1	3	10	1+3+10
		WWAN	WLAN2.4GHz Ant 17	WLAN5GHz Ant 18	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Ant 0	Front	0.587	0.078	0.111	0.78
	Back	0.505	0.327	0.184	1.02
	Left side				0.00
	Right side	0.242	0.077	0.442	0.76
	Top side		0.136	0.127	0.26
	Bottom side	0.299			0.30
Ant 1	Front	0.245	0.078	0.111	0.43
	Back	0.456	0.327	0.184	0.97
	Left side	0.393			0.39
	Right side		0.077	0.442	0.52
	Top side	0.749	0.136	0.127	1.01
	Bottom side				0.00
Ant 2	Front	0.567	0.078	0.111	0.76
	Back	0.787	0.327	0.184	1.30
	Left side	0.251			0.25
	Right side		0.077	0.442	0.52
	Top side		0.136	0.127	0.26
	Bottom side	1.047			1.05
Ant 3	Front	0.310	0.078	0.111	0.50
	Back	0.238	0.327	0.184	0.75
	Left side	0.640			0.64
	Right side		0.077	0.442	0.52
	Top side	0.066	0.136	0.127	0.33
	Bottom side				0.00
Ant 4	Front	0.348	0.078	0.111	0.54
	Back	0.523	0.327	0.184	1.03
	Left side				0.00
	Right side	0.857	0.077	0.442	1.38
	Top side	0.056	0.136	0.127	0.32
	Bottom side				0.00
Ant 5	Front	0.163	0.078	0.111	0.35
	Back	0.224	0.327	0.184	0.74
	Left side				0.00
	Right side	0.151	0.077	0.442	0.67
	Top side	0.448	0.136	0.127	0.71
	Bottom side				0.00
Ant 6	Front	0.332	0.078	0.111	0.52
	Back	0.328	0.327	0.184	0.84
	Left side				0.00
	Right side	0.612	0.077	0.442	1.13
	Top side	0.123	0.136	0.127	0.39
	Bottom side				0.00
Ant 7	Front	0.039	0.078	0.111	0.23
	Back	1.057	0.327	0.184	1.57
	Left side	0.231			0.23
	Right side		0.077	0.442	0.52
	Top side		0.136	0.127	0.26
	Bottom side				0.00

<EN-DC>

WWAN Band	FR1 Band	Exposure Position	1	2	3	5	10	12	17	1+2+3+17	1+2+10+17	1+2+5+12
			WWAN	FR1	WLAN2.4GHz Ant 6+17	WLAN2.4GHz Ant 17	WLAN5GHz Ant 5+18	WLAN5GHz Ant 18	Bluetooth Ant 17	Summed	Summed	Summed
			1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All LTE	All NR	Front	0.277	0.112	0.216	0.078	0.144	0.111	0.081	0.69	0.61	0.58
		Back	0.464	0.575	0.308	0.327	0.187	0.184	0.216	1.56	1.44	1.55
		Left side	0.296	0.240						0.54	0.54	0.54
		Right side	0.389	0.273	0.581	0.077	0.314	0.442		1.24	0.98	1.18
		Top side	0.148	0.300	0.335	0.136	0.452	0.127	0.158	0.94	1.06	0.71
		Bottom side	0.558							0.56	0.56	0.56



16.3 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	6	13	17	1+6+17	1+13+17
		WWAN	WLAN2.4GHz Ant 6+17	WLAN5GHz Ant 5+18	Bluetooth Ant 17	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Ant 0	Front	0.328	0.118	0.232		0.45	0.56
	Back	0.294	0.280	0.381	0.137	0.71	0.81
Ant 1	Front	0.447	0.118	0.232		0.57	0.68
	Back	0.852	0.280	0.381	0.137	1.27	1.37
Ant 2	Front	0.592	0.118	0.232		0.71	0.82
	Back	0.911	0.280	0.381	0.137	1.33	1.43
Ant 3	Front	0.480	0.118	0.232		0.60	0.71
	Back	0.379	0.280	0.381	0.137	0.80	0.90
Ant 4	Front	0.253	0.118	0.232		0.37	0.49
	Back	0.371	0.280	0.381	0.137	0.79	0.89
Ant 5	Front	0.127	0.118	0.232		0.25	0.36
	Back	0.177	0.280	0.381	0.137	0.59	0.70
Ant 6	Front	0.258	0.118	0.232		0.38	0.49
	Back	0.238	0.280	0.381	0.137	0.66	0.76
Ant 7	Front	0.130	0.118	0.232		0.25	0.36
	Back	0.974	0.280	0.381	0.137	1.39	1.49

WWAN Band	Exposure Position	1	6	13	1+6+13
		WWAN	WLAN2.4GHz Ant 17	WLAN5GHz Ant 18	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Ant 0	Front	0.328		0.227	0.56
	Back	0.294	0.216	0.248	0.76
Ant 1	Front	0.447		0.227	0.67
	Back	0.852	0.216	0.248	1.32
Ant 2	Front	0.592		0.227	0.82
	Back	0.911	0.216	0.248	1.38
Ant 3	Front	0.480		0.227	0.71
	Back	0.379	0.216	0.248	0.84
Ant 4	Front	0.253		0.227	0.48
	Back	0.371	0.216	0.248	0.84
Ant 5	Front	0.127		0.227	0.35
	Back	0.177	0.216	0.248	0.64
Ant 6	Front	0.258		0.227	0.49
	Back	0.238	0.216	0.248	0.70
Ant 7	Front	0.130		0.227	0.36
	Back	0.974	0.216	0.248	1.44

<EN-DC>

WWAN Band	Exposure Position	1	2	5	6	12	13	17	1+2+6+17	1+2+13+17	1+2+5+12
		WWAN	FR1	WLAN2.4GHz Ant 17	WLAN2.4GHz Ant 6+17	WLAN5GHz Ant 18	WLAN5GHz Ant 5+18	Bluetooth Ant 17	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All LTE	Front	0.308	0.258		0.118	0.227	0.232		0.68	0.80	0.79
	Back	0.518	0.543	0.216	0.280	0.248	0.381	0.137	1.48	1.58	1.53

16.4 Product specific 10g SAR Exposure Conditions

Remark:

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

WWAN Band	Exposure Position	1	10	18	1+10+18
		WWAN	WLAN5GHz Ant 5+18	NFC	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
Ant 1	Front		0.703		0.70
	Back	2.192	0.372	0.004	2.57
	Left side	1.219			1.22
	Right side		0.977		0.98
	Top side	2.480	1.100		3.58
	Bottom side				0.00
Ant 2	Front		0.703		0.70
	Back	2.576	0.372	0.004	2.95
	Left side				0.00
	Right side		0.977		0.98
	Top side		1.100		1.10
	Bottom side	2.311			2.31
Ant 3	Front		0.703		0.70
	Back		0.372	0.004	0.38
	Left side	2.561			2.56
	Right side		0.977		0.98
	Top side		1.100		1.10
	Bottom side				0.00
Ant 4	Front		0.703		0.70
	Back	1.180	0.372	0.004	1.56
	Left side				0.00
	Right side	1.909	0.977		2.89
	Top side		1.100		1.10
	Bottom side				0.00
Ant 5	Front		0.703		0.70
	Back		0.372	0.004	0.38
	Left side				0.00
	Right side		0.977		0.98
	Top side	2.270	1.100		3.37
	Bottom side				0.00
Ant 6	Front	1.955	0.703		2.66
	Back	0.566	0.372	0.004	0.94
	Left side				0.00
	Right side	2.503	0.977		3.48
	Top side		1.100		1.10
	Bottom side				0.00
Ant 7	Front		0.703		0.70
	Back	1.568	0.372	0.004	1.94
	Left side	0.514			0.51
	Right side		0.977		0.98
	Top side		1.100		1.10
	Bottom side				0.00

WWAN Band	Exposure Position	1	10	18	1+10
		WWAN	WLAN5GHz Ant 18	NFC	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
Ant 1	Front		1.005		1.01
	Back	2.192	0.317	0.004	2.51
	Left side	1.219			1.22
	Right side		1.168		1.17
	Top side	2.480	0.164		2.64
	Bottom side				0.00
Ant 2	Front		1.005		1.01
	Back	2.576	0.317	0.004	2.90
	Left side				0.00
	Right side		1.168		1.17
	Top side		0.164		0.16
	Bottom side	2.311			2.31
Ant 3	Front		1.005		1.01
	Back		0.317	0.004	0.32
	Left side	2.561			2.56
	Right side		1.168		1.17
	Top side		0.164		0.16
	Bottom side				0.00
Ant 4	Front		1.005		1.01
	Back	1.180	0.317	0.004	1.50
	Left side				0.00
	Right side	1.909	1.168		3.08
	Top side		0.164		0.16
	Bottom side				0.00
Ant 5	Front		1.005		1.01
	Back		0.317	0.004	0.32
	Left side				0.00
	Right side		1.168		1.17
	Top side	2.270	0.164		2.43
	Bottom side				0.00
Ant 6	Front	1.955	1.005		2.96
	Back	0.566	0.317	0.004	0.89
	Left side				0.00
	Right side	2.503	1.168		3.67
	Top side		0.164		0.16
	Bottom side				0.00
Ant 7	Front		1.005		1.01
	Back	1.568	0.317	0.004	1.89
	Left side	0.514			0.51
	Right side		1.168		1.17
	Top side		0.164		0.16
	Bottom side				0.00

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WWAN Band	FR1 Band	Exposure Position	1	2	10	11	18	1+2+10+18	1+2+11+18
			WWAN 10g SAR (W/kg)	FR1 10g SAR (W/kg)	WLAN5GHz Ant 5+18 10g SAR (W/kg)	WLAN5GHz Ant 18 10g SAR (W/kg)	NFC 10g SAR (W/kg)	Summed 10g SAR (W/kg)	Summed 10g SAR (W/kg)
All LTE	All NR	Front			0.703	1.005		0.70	1.01
		Back		1.568	0.372	0.317	0.004	1.94	1.89
		Left side		0.678				0.68	0.68
		Right side	1.171	1.323	0.977	1.168		3.47	3.66
		Top side		1.402	1.100	0.164		2.50	1.57
		Bottom side	1.345					1.35	1.35

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17. Uncertainty Assessment

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

18. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [6] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [8] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [9] FCC KDB 616217 D04 v01r02, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", Oct 2015
- [10] FCC KDB 941225 D01 v03r01, "3G SAR MEASUREMENT PROCEDURES", Oct 2015
- [11] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [12] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [13] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [14] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015

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