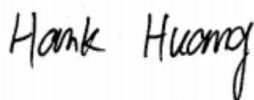


FCC SAR Test Report

APPLICANT : Guangdong OPPO Mobile Telecommunications Corp., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : OPPO
MODEL NAME : CPH2737
FCC ID : R9C-OP24321
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: Hank Huang

Sporton International Inc. (Shenzhen)
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People's Republic of China



Table of Contents

1. Statement of Compliance	4
2. Administration Data	5
3. Guidance Applied	6
4. Equipment Under Test (EUT) Information	7
4.1 General Information.....	7
4.2 General LTE SAR Test and Reporting Considerations	10
4.3 General 5G NR SAR Test and Reporting Considerations	14
5. TA-SAR feature for RF Exposure compliance	17
6. RF Exposure Limits.....	22
6.1 Uncontrolled Environment	22
6.2 Controlled Environment.....	22
7. Specific Absorption Rate (SAR)	23
7.1 Introduction	23
7.2 SAR Definition	23
8. System Description and Setup.....	24
8.1 E-Field Probe	25
8.2 Data Acquisition Electronics (DAE)	25
8.3 Phantom.....	26
8.4 Device Holder.....	27
9. Measurement Procedures.....	28
9.1 Spatial Peak SAR Evaluation	28
9.2 Power Reference Measurement.....	29
9.3 Area Scan.....	29
9.4 Zoom Scan.....	30
9.5 Volume Scan Procedures.....	30
9.6 Power Drift Monitoring.....	30
10. Test Equipment List	31
11. System Verification	32
11.1 Tissue Simulating Liquids	32
11.2 Tissue Verification.....	32
11.3 System Performance Check Results	34
12. RF Exposure Positions	35
12.1 Ear and handset reference point	35
12.2 Definition of the cheek position	36
12.3 Definition of the tilt position	37
12.4 Body Worn Accessory	38
12.5 Product Specific 10g SAR Exposure	39
12.6 Wireless Router.....	39
13. Conducted RF Output Power (Unit: dBm).....	40
14. Antenna Location	57
15. SAR Test Results	58
15.1 Head SAR	61
15.2 Hotspot SAR	77
15.3 Body Worn Accessory SAR	89
15.4 Product specific 10g SAR.....	95
15.5 Repeated SAR Measurement	96
15.6 TDD LTE Linearity Data Analysis	97
16. Simultaneous Transmission Analysis	99
16.1 5G NR + LTE + WLAN + BT Sim-Tx analysis.....	101
16.2 Head Exposure Conditions.....	102
16.3 Hotspot Exposure Conditions.....	103
16.4 Body-Worn Accessory Exposure Conditions	104
16.5 Product specific 10g SAR Exposure Conditions.....	104
17. Uncertainty Assessment.....	105
18. References	106
Appendixes	107
Appendix A. Plots of System Performance Check.....	107
Appendix B. Plots of High SAR Measurement	107
Appendix C. DASY Calibration Certificate	107
Appendix D. Test Setup Photos.....	107
Appendix E. Conducted RF Output Power Table	107
Appendix F. Power measurement connection diagram and CA Conducted RF Output Power Table	107
Appendix G. Power reduction mechanism verification	107



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FCC ID : R9C-OP24321

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Guangdong OPPO Mobile Telecommunications Corp., Ltd., Mobile Phone, CPH2737**, 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	0.84	0.68	0.37	1.56	
		GSM1900	0.92	1.09	0.36		
	WCDMA	WCDMA II	0.56	0.62	0.21		
		WCDMA IV	0.64	0.66	0.32		
		WCDMA V	0.65	0.50	0.25		
	LTE	LTE Band 2	1.16	0.84	0.23		
		LTE Band 4	1.01	0.33	0.16		
		LTE Band 66	0.99	0.71	0.36		
		LTE Band 5/26	0.79	0.61	0.32		
		LTE Band 7	1.15	0.70	0.29		
		LTE Band 12/17	0.78	0.60	0.33		
		LTE Band 13	0.59	0.67	0.27		
		LTE Band 38	0.75	0.65	0.19		
		LTE Band 41	0.86	0.98	0.21		
		5G NR	FR1 n2	0.86	0.94		0.32
			FR1 n5/26	0.71	0.67		0.33
	FR1 n7		0.95	0.83	0.27		
	FR1 n12		0.67	0.46	0.25		
	FR1 n66		1.07	0.89	0.34		
	FR1 n38		1.09	0.82	0.27		
	FR1 n41		1.04	0.86	0.27		
	FR1 n77		1.08	0.54	0.23		
		FR1 n78	1.11	0.46	0.45		
DTS	WLAN	2.4GHz WLAN	0.81	0.74	0.25	1.56	
NII		5GHz WLAN	1.03	0.52	0.19	1.56	
DSS	Bluetooth	2.4GHz Bluetooth	1.11	0.92	0.22	1.56	
Highest 10g SAR Summary							
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)			Highest Simultaneous Transmission 10g SAR (W/kg)	
DTS	WLAN	2.4GHz WLAN	1.74			3.56	
NII		5GHz WLAN	1.82			3.56	
Date of Testing:			2025/3/13 ~2025/4/3				
Remark:							
1. This device supports LTE B17 /B5 and B12 /B26. Since the supported frequency span for LTE B17 /B5 falls completely within the supports frequency span for LTE B12 /B26, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B12 /B26.							
2. This device supports 5GNR n5 and 5GNR n26. Since the supported frequency span for 5GNR n5 falls completely within the supports frequency span for 5GNR n26, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for 5GNR n26.							

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	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China

Manufacturer	
Company Name	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	OPPO
Model Name	CPH2737
FCC ID	R9C-OP24321
IMEI Code	IMEI 1: 869081070025259 IMEI 2: 869081070025242
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850MHz ~ 1910MHz 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 66: 1710 MHz ~ 1780 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN U-NII 5: 5945 MHz ~ 6425 MHz WLAN U-NII 6: 6425 MHz ~ 6525 MHz WLAN U-NII 7: 6525 MHz ~ 6875 MHz WLAN U-NII 8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac VHT20/VHT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40

	WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	11
SW Version	ColorOS 15.0
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Production Unit
Remark:	
1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5G NR (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. This device does not support DTM operation and support GRPS/EGPRS mode up to multi-slot class 12. 5. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active). 6. The device implements receiver detect mechanism trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E. 7. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneously with WWAN/BT, the device power will be reduced power at head, body-worn, hotspot and extremity conditions. 8. This device supports HPUE mode for LTE band 41 with class 2 level, HPUE power have been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR. 9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission. 10. This device supports HPUE mode for 5G NR n41 /n78 with higher power, so HPUE mode was chosen to perform full SAR testing and HPUE SAR can represent power class 3 level SAR. 11. The device has three batteries. For battery 1/2 only suppliers are different, and for battery 2/3 only model name are different, so only battery 1 was chosen to perform full SAR testing. 12. SAR and Power density test report for WLAN 6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth always chose higher SAR of WLAN5GHz U-NII-1/2A/2C/3 and WLAN 6GHz U-NII-5/6/7/8. 13. This device has NFC function and the NFC SAR report will be separately submitted. 14. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.	

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths (BW)
NSA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n38	TDD	30	10, 15, 20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n12	FDD	15	5, 10, 15
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n38	TDD	30	10, 15, 20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05									
FCC ID		R9C-OP24321							
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 66: 1710 MHz ~ 1780 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 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz							
uplink modulations used		QPSK / 16QAM / 64QAM / 256QAM							
LTE Voice / Data requirements		Voice and Data							
LTE Release Version		R15							
CA Support		Supported, Uplink and Downlink							
LTE MPR permanently built-in by design		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	
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 receiver 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 and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 4 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				
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				
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				
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560				
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	23017	699.7	23025	700.5	23035	701.5	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711				
LTE Band 13												
	Bandwidth 5 MHz		Bandwidth 10 MHz									
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)	Channel #	Freq.(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)	Channel #	Freq.(MHz)	Channel #	Freq.(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			
	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		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 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				
M	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610				

LTE Band 41												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506				
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5				
M	40620	2593	40620	2593	40620	2593	40620	2593				
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5				
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680				
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

<For LTE SA Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
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:

Band	Ant	Full (ECI0)	ECI 3	ECI 5	ECI 8	ECI 10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant 5	25	21	25	21	25
LTE Band 66		25	21	25	21	25
LTE Band 4	Ant 6	24.6	20.1	16.6	18.6	15.6
LTE Band 66		24.6	21.1	17.1	19.1	16.1
LTE Band 4	Ant 11	24.5	23	21	21	20.5
LTE Band 66		24.4	21.9	20.9	19.9	20.4
LTE Band 4	Ant 7	21.8	19.3	16.3	17.8	15.3
LTE Band 66		21.8	20.3	16.8	18.3	15.8
LTE Band 5	Ant 1	25	25	25	24	25
LTE Band 26		25	25	25	24.5	25
LTE Band 5	Ant 0	24.5	22	20	20	19.5
LTE Band 26		24.5	23	21	21	20.5
LTE Band 12	Ant 1	23.8	23.8	23.8	22.8	23.8
LTE Band 17		23.8	23.8	23.8	22.8	23.8
LTE Band 12	Ant 0	23.3	22.8	20.8	21.3	20.3
LTE Band 17		23.3	22.8	20.8	21.3	20.3
LTE Band 38_PC3	Ant 5	25	21.5	25	21.5	25
LTE Band 41_PC3		22.8	22.8	22.8	22.8	22.8
LTE Band 38_PC3	Ant 6	24.4	20.4	18.4	18.9	17.9
LTE Band 41_PC3		22.3	21.3	18.8	19.3	17.8
LTE Band 38_PC3	Ant 11	24.4	20.4	15.9	18.9	15.4
LTE Band 41_PC3		22.2	20.7	16.2	18.7	15.7
LTE Band 38_PC3	Ant 7	21	21	18	19.5	17
LTE Band 41_PC3		18.8	18.8	18.3	18.8	17.8

Note: For some bands/antennas at some exposure conditions which cannot be covered were fully tested for RF exposure compliance.

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n38 : 2570 MHz ~ 2620 MHz 5G NR n41 : 2496 MHz ~ 2690 MHz 5G NR n66 : 1710 MHz ~ 1780 MHz 5G NR n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz
Channel Bandwidth	The detail please refers to section 4.1 5G NR FR1 bands table.
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n5	LTE B7/66
LTE Anchor Bands for n7	LTE B2/4/5/7/66
LTE Anchor Bands for n26	LTE B7
LTE Anchor Bands for n38	LTE B2/4/5/66
LTE Anchor Bands for n41	LTE B2/4/26/66/41
LTE Anchor Bands for n66	LTE B2/4/5/7/12/66
LTE Anchor Bands for n77	LTE B7/41
LTE Anchor Bands for n78	LTE B2/4/5/7/26/38/41/66

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band								
NR Band 2								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900

NR Band 5								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	165300	826.5	165800	829	166300	831.5	166800	834
M	167300	836.5	167300	836.5	167300	836.5	167300	836.5
H	169300	846.5	168800	844	168300	841.5	167800	839

NR Band 7														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550

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

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

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

NR Band 38										
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515004	2575.02	515502	2577.51	516000	2580	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	520998	2604.99	519996	2599.98

NR Band 41																
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541
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	531000	2655	529998	2649.99	528996	2644.98

NR Band 77 SCS30KHz																
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02
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	663000	3945	662666	3939.99	662332	3934.98

NR Band 78 SCS30KHz																
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02
M	650000	3750	650000	3750.00	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	651000	3765	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 70MHz		Bandwidth 80MHz		Bandwidth 90MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99

NR Band 78 SCS30KHz																
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99

<For NR SA Overlap Bands Description>
1) NR Bands BW

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
FR1	n5	FDD	15	5, 10, 15, 20
	n26	FDD	15	5, 10, 15, 20
	n38	TDD	30	10,15,20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60,70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60,70, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60,70, 80, 90, 100

2) NR Bands Tune up:

Band	Ant	Full (ECI0)	ECI 3	ECI 5	ECI 8	ECI 10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant 1	25.7	25.7	25.7	24.7	25.7
FR1 n26		25.7	25.7	25.7	24.7	25.7
FR1 n5	Ant 0	25.3	23.3	20.8	21.8	20.3
FR1 n26		25.3	23.3	20.8	21.8	20.3
FR1 n38_PC3	Ant 5	25.4	19.9	25.4	19.9	25.4
FR1 n41_PC3		23.2	20.2	23.2	20.2	23.2
FR1 n38_PC3	Ant 6	24.8	20.3	16.8	18.3	15.8
FR1 n41_PC3		22.7	18.7	16.7	16.7	15.7
FR1 n38_PC3	Ant 11	24.8	19.8	17.8	17.8	17.3
FR1 n41_PC3		22.6	17.6	14.1	16.1	13.6
FR1 n38_PC3	Ant 7	21.6	19.6	16.6	17.6	15.1
FR1 n41_PC3		19.2	19.2	16.2	17.2	15.2
FR1 n77_PC3	Ant 9	24.2	19.2	16.2	17.2	14.7
FR1 n78_PC3		24.2	19.7	16.2	18.2	14.7
FR1 n77_PC3	Ant 8	24.2	20.2	16.7	18.2	15.2
FR1 n78_PC3		24.2	20.7	16.2	18.7	14.7
FR1 n77_PC3	Ant 6	22.2	20.2	19.2	18.2	18.2
FR1 n78_PC3		21.2	21.2	19.2	19.7	18.7
FR1 n77_PC3	Ant 0	21.2	19.7	15.2	17.7	14.7
FR1 n78_PC3		21.2	18.2	14.7	16.7	13.7

Note: For some bands/antennas at some exposure conditions which cannot be covered were fully tested for RF exposure compliance.

5. TA-SAR feature for RF Exposure compliance

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

The FCC RF exposure limit is defined based on time-averaged RF exposure. The product implements MediaTek TA-SAR feature which controls the instantaneous transmitting power for WWAN and WLAN/BT transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window. To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

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

The P_{limit} values correspond to SAR_{design_target}. The power will be fixed at the static reduce power level at different exposure conditions for RF exposure compliance. For the GSM (TDD) P_{limit} power levels in the table correspond to the burst average power levels which don't account for TX duty cycle.

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for TA-SAR algorithm. SAR char will be entered via the MediaTek's NV suggestion to enable the TA-SAR Feature.

<Terminologies in this report>

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

<SAR Characterization>

SAR char must be generated to cover all radio configurations and usage scenarios that the wireless device supports for operating at WWAN and WLAN/BT bands. It will then be used as input for TA-SAR to control and manage RF exposure for WWAN and WLAN/BT bands.

To account for total uncertainty, SAR_{design_target} should be determined as:

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

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

TA-SAR allows the device to transmit at higher power instantaneously, as high as Pmax, when needed, but enforces power limiting to maintain time-averaged transmit power to Plimit.

<P_{limit} for supported technologies and bands>

Band	Antenna	ECI3	ECI5	ECI8	ECI10	Pmax*	Total Uncertainty dB (k=2)
		Extremity Body worn Standalone (Receive off)	Head Standalone (Receive on)	Extremity Body worn Simultaneous Hotspot (Receive off)	Head Simultaneous (Receive on)		
GSM850	ANT 0	23.10	21.10	21.60	20.60	23.60	1.2
GSM850	ANT 1	32.40	30.70	28.40	30.70	24.00	1.2
GSM1900	ANT 5	26.40	31.50	21.60	31.50	21.30	1.2
GSM1900	ANT 6	27.20	17.00	19.50	16.50	20.50	1.2
WCDMA II	ANT 5	18.60	30.10	18.60	30.10	22.60	1.2
WCDMA II	ANT 6	19.70	15.60	17.70	14.70	22.20	1.2
WCDMA IV	ANT 5	19.60	31.10	19.60	31.10	23.60	1.2
WCDMA IV	ANT 6	19.20	15.20	17.70	14.20	23.20	1.2
WCDMA IV	ANT 11	19.60	18.10	18.10	17.60	23.10	1.2
WCDMA IV	ANT 7	18.90	15.40	16.90	14.90	20.40	1.2
WCDMA V	ANT 0	21.70	22.70	19.70	21.70	23.20	1.2
WCDMA V	ANT 1	30.30	29.00	22.60	29.00	23.60	1.2
LTE Band 2	ANT 5	18.60	30.80	18.60	30.80	22.60	1.2
LTE Band 2	ANT 6	19.70	15.70	18.20	14.70	22.20	1.2
LTE Band 2	ANT 11	19.50	17.50	17.50	16.50	22.00	1.2
LTE Band 2	ANT 7	17.20	14.20	15.20	13.20	19.70	1.2
LTE Band 4	ANT 5	19.80	31.40	19.80	31.40	23.80	1.2
LTE Band 4	ANT 6	18.90	15.40	17.40	14.40	23.40	1.2
LTE Band 4	ANT 11	21.80	19.80	19.80	19.30	23.30	1.2
LTE Band 4	ANT 7	18.10	15.10	16.60	14.10	20.60	1.2
LTE Band 66	ANT 5	19.80	31.40	19.80	31.40	23.80	1.2
LTE Band 66	ANT 6	19.90	15.90	17.90	14.90	23.40	1.2
LTE Band 66	ANT 11	20.70	19.70	18.70	19.20	23.20	1.2
LTE Band 66	ANT 7	19.10	15.60	17.10	14.60	20.60	1.2
LTE Band 5	ANT 1	31.00	29.20	22.80	29.20	23.80	1.2
LTE Band 5	ANT 0	20.80	18.80	18.80	18.30	23.30	1.2
LTE Band 26	ANT 1	31.00	29.20	23.30	29.20	23.80	1.2
LTE Band 26	ANT 0	21.80	19.80	19.80	19.30	23.30	1.2
LTE Band 7	ANT 5	18.30	30.10	18.30	30.10	23.80	1.2
LTE Band 7	ANT 6	18.30	15.30	16.30	14.30	23.30	1.2
LTE Band 7	ANT 11	18.20	16.20	16.20	15.20	23.20	1.2
LTE Band 7	ANT 7	25.90	16.30	17.80	14.30	19.80	1.2
LTE Band 12/17	ANT 1	28.10	30.50	21.60	30.50	22.60	1.2
LTE Band 12/17	ANT 0	21.60	19.60	20.10	19.10	22.10	1.2
LTE Band 13	ANT 1	29.10	30.70	24.60	30.70	22.60	1.2
LTE Band 13	ANT 0	28.80	20.10	27.80	19.10	22.10	1.2
LTE Band 38	ANT 5	18.30	30.60	18.30	30.60	21.80	1.2
LTE Band 38	ANT 6	17.20	15.20	15.70	14.70	21.20	1.2
LTE Band 38	ANT 11	17.20	12.70	15.70	12.20	21.20	1.2
LTE Band 38	ANT 7	27.80	14.80	16.30	13.80	17.80	1.2
LTE Band 41_PC3	ANT 5	19.50	30.20	19.50	30.20	19.60	1.2
LTE Band 41_PC2	ANT 5	19.50	30.20	19.50	30.20	21.00	1.2
LTE Band 41_PC3	ANT 6	17.50	15.00	16.00	14.50	19.10	1.2
LTE Band 41_PC2	ANT 6	17.50	15.00	16.00	14.50	20.50	1.2



FCC SAR Test Report

Report No. : FA521816

LTE Band 41_PC3	ANT 11	16.90	12.90	15.40	11.90	19.00	1.2
LTE Band 41_PC2	ANT 11	16.90	12.90	15.40	11.90	20.40	1.2
LTE Band 41_PC3	ANT 7	26.40	15.00	16.00	14.50	15.60	1.2
LTE Band 41_PC2	ANT 7	26.40	15.00	16.00	14.50	17.00	1.2
n2	ANT 5	20.00	29.90	20.00	29.90	23.00	1.2
n2	ANT 6	20.60	16.60	18.60	15.60	22.60	1.2
n5/26	ANT 1	30.60	29.00	23.50	29.00	24.50	1.2
n5/26	ANT 0	22.10	19.60	20.60	19.10	24.10	1.2
n7	ANT 5	18.70	29.10	18.70	29.10	24.20	1.2
n7	ANT 6	18.70	15.20	16.70	14.70	23.70	1.2
n7	ANT 11	18.10	15.60	16.60	15.10	23.60	1.2
n7	ANT 7	27.00	15.20	18.70	14.70	20.20	1.2
n12	ANT 1	21.00	30.80	19.00	30.80	23.00	1.2
n12	ANT 0	20.60	18.60	18.60	17.60	22.60	1.2
n66	ANT 5	20.70	31.10	20.70	31.10	24.20	1.2
n66	ANT 6	19.40	15.40	17.90	14.90	23.40	1.2
n66	ANT 11	21.10	20.10	19.60	19.10	23.60	1.2
n66	ANT 7	19.80	16.30	17.80	15.30	21.30	1.2
n38	ANT 5	18.70	28.70	18.70	28.70	24.20	1.2
n38	ANT 6	19.10	15.60	17.10	14.60	23.60	1.2
n38	ANT 11	18.60	16.60	16.60	16.10	23.60	1.2
n38	ANT 7	18.40	15.40	16.40	13.90	20.40	1.2
n41_PC3	ANT 5	19.00	28.90	19.00	28.90	22.00	1.2
n41_PC2	ANT 5	19.00	28.90	19.00	28.90	25.00	1.2
n41_PC3	ANT 6	17.50	15.50	15.50	14.50	21.50	1.2
n41_PC2	ANT 6	17.50	15.50	15.50	14.50	24.50	1.2
n41_PC3	ANT 11	16.40	12.90	14.90	12.40	21.40	1.2
n41_PC2	ANT 11	16.40	12.90	14.90	12.40	24.40	1.2
n41_PC3	ANT 7	18.00	15.00	16.00	14.00	18.00	1.2
n41_PC2	ANT 7	18.00	15.00	16.00	14.00	21.00	1.2
n77	ANT 9	18.00	15.00	16.00	13.50	23.00	1.2
n77	ANT 8	19.00	15.50	17.00	14.00	23.00	1.2
n77	ANT 6	19.00	18.00	17.00	17.00	21.00	1.2
n77	ANT 0	18.50	14.00	16.50	13.50	20.00	1.2
n78_PC3	ANT 9	18.50	15.00	17.00	13.50	23.00	1.2
n78_PC2	ANT 9	18.50	15.00	17.00	13.50	26.00	1.2
n78_PC3	ANT 8	19.50	15.00	17.50	13.50	23.00	1.2
n78_PC2	ANT 8	19.50	15.00	17.50	13.50	26.00	1.2
n78_PC3	ANT 6	20.50	18.00	18.50	17.50	20.00	1.2
n78_PC2	ANT 6	20.50	18.00	18.50	17.50	23.00	1.2
n78_PC3	ANT 0	17.00	13.50	15.50	12.50	20.00	1.2
n78_PC2	ANT 0	17.00	13.50	15.50	12.50	23.00	1.2

Bluetooth								
Band	Antenna	Head Standalone	Head_Simultaneous WWAN+BT 2.4G+BT 5/6G+BT	Head_Simultaneous 2.4G+5/6G+BT WWAN+2.4G+BT WWAN+5/6G+BT WWAN+2.4G+5/6G+BT	Hotspot/Body worn_Standalone Simultaneous WWAN+BT 2.4G+BT 5/6G+BT	Hotspot/Body worn_Simultaneous 2.4G+5/6G+BT WWAN+2.4G+BT WWAN+5/6G+BT WWAN+2.4G+5/6G+BT	Pmax*	Total Uncertainty dB (k=2)
Bluetooth	Ant 12	15.7	13.2	8.7	16.7	12.7	16.7	1.2

WLAN2.4GHz												
Band	Antenna	Head Standalone Simultaneous 2.4G+5G/6G	Head Simultaneous 2.4G+BT 2.4G+5G/ 6G+BT	Head Simultaneous 2.4G+WWAN 2.4G+WWAN+ 5G/6G	Head Simultaneous 2.4G+ WWAN+BT	Head Simultaneous 2.4G+WWAN+ 5G/6G+BT	Hotspot/ Extremity/ Body worn Standalone Simultaneous 2.4G+5G/6G	Hotspot/ Extremity/ Body worn Simultaneous 2.4G+BT 2.4G+5G/ 6G+BT 2.4G+WWAN 2.4G+ WWAN+5G/6G	Hotspot/ Extremity/ Body worn Simultaneous 2.4G+ WWAN+BT	Hotspot/ Extremity/ Body worn Simultaneous 2.4G+WWAN+ 5G/6G+BT	Pmax*	Total Uncertainty dB (k=2)
WLAN2.4GHz	Ant 12	13.3	11.3	10.8	9.8	8.8	17.3	14.8	13.8	13.3	24.3	1.2
WLAN2.4GHz	Ant 7	13.3	11.3	10.8	9.8	8.8	17.3	14.8	13.8	13.3	24.3	1.2
WLAN2.4GHz	Ant 12+7	13.3	11.3	10.8	9.8	8.8	17.3	14.8	13.8	13.3	27.3	1.2

WLAN5GHz														
Band	Antenna	Head Standalone	Head Simultaneous 2.4G+5G/6G 5G/6G+BT 2.4G+ 5G/6G+BT	Head Simultaneous 5G/6G+WWAN 5G/6G+ WWAN+BT 2.4G+WWAN+ 5G/6G 2.4G+WWAN+ 5G/6G+BT	Hotspot Standalone Simultaneous 2.4G+5G/6G 5G/6G+BT 2.4G+ 5G/6G+BT	Hotspot Simultaneous 5G/6G+ WWAN 2.4G+WWAN +5G/6G	Hotspot Simultaneous 5G/6G+ WWAN+BT	Hotspot Simultaneous 2.4G+WWAN+ 5G/6G+BT	Extremity/ Body worn Standalone Simu ltaneous 2.4G+5G/6G 5G/6G+BT 2.4G+ 5G/6G+BT	Extremity/ Body worn Simultaneous 5G/6G+WWAN 2.4G+WWAN +5G/6G	Extremity /Body worn Simultaneous 5G/6G+ WWAN+BT	Extremity/ Body worn Simultaneous 2.4G+ WWAN+ 5G/6G+BT	Pmax*	Total Uncertainty dB (k=2)
WLAN5.2GHz	Ant 9	14.3	12.3	8.3	15.3	14.8	13.8	13.8	15.3	14.8	13.8	13.8	15.3	1.2
WLAN5.2GHz	Ant 8	14.3	12.3	8.3	15.3	14.8	13.8	13.8	15.3	14.8	13.8	13.8	15.3	1.2
WLAN5.2GHz	Ant 9+8	14.3	12.3	8.3	15.3	14.8	13.8	13.8	15.3	14.8	13.8	13.8	18.3	1.2
WLAN5.3GHz	Ant 9	14.3	12.3	8.3					15.3	14.8	13.8	13.8	16.3	1.2
WLAN5.3GHz	Ant 8	14.3	12.3	8.3					15.3	14.8	13.8	13.8	16.3	1.2
WLAN5.3GHz	Ant 9+8	14.3	12.3	8.3					15.3	14.8	13.8	13.8	19.3	1.2
WLAN5.5GHz	Ant 9	14.3	14.3	10.8					14.3	14.3	14.3	14.3	14.3	1.2
WLAN5.5GHz	Ant 8	14.3	14.3	10.8					14.3	14.3	14.3	14.3	14.3	1.2
WLAN5.5GHz	Ant 9+8	14.3	14.3	10.8					14.3	14.3	14.3	14.3	17.3	1.2
WLAN5.8GHz	Ant 9	12.8	11.8	8.3	12.8	12.8	12.8	11.8	12.8	12.8	12.8	11.8	12.8	1.2
WLAN5.8GHz	Ant 8	12.8	11.8	8.3	12.8	12.8	12.8	11.8	12.8	12.8	12.8	11.8	12.8	1.2
WLAN5.8GHz	Ant 9+8	12.8	11.8	8.3	12.8	12.8	12.8	11.8	12.8	12.8	12.8	11.8	15.8	1.2

WLAN6GHz				
Band	Antenna	Head/Extremity/Body worn Standalone/Simultaneous	Pmax*	Total Uncertainty dB (k=2)
WLAN6GHz U-NII-5	Ant 9	5.8	7.8	1.2
WLAN6GHz U-NII-5	Ant 8	5.8	7.8	1.2
WLAN6GHz U-NII-5	Ant 9+8	5.8	10.8	1.2
WLAN6GHz U-NII-6	Ant 9	6.8	12.8	1.2
WLAN6GHz U-NII-6	Ant 8	6.8	12.8	1.2
WLAN6GHz U-NII-6	Ant 9+8	6.8	15.8	1.2
WLAN6GHz U-NII-7	Ant 9	7.8	12.8	1.2
WLAN6GHz U-NII-7	Ant 8	7.8	12.8	1.2
WLAN6GHz U-NII-7	Ant 9+8	7.8	15.8	1.2
WLAN6GHz U-NII-8	Ant 9	6.8	12.8	1.2
WLAN6GHz U-NII-8	Ant 8	6.8	12.8	1.2
WLAN6GHz U-NII-8	Ant 9+8	6.8	15.8	1.2

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1.2 dB device uncertainty.

2) All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD&WLAN/BT).

3) The max allowed output power is the P_{limit} + 1.2 dB device uncertainty, and if P_{limit} is higher than Pmax, the device output power will be Pmax instead.

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:

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

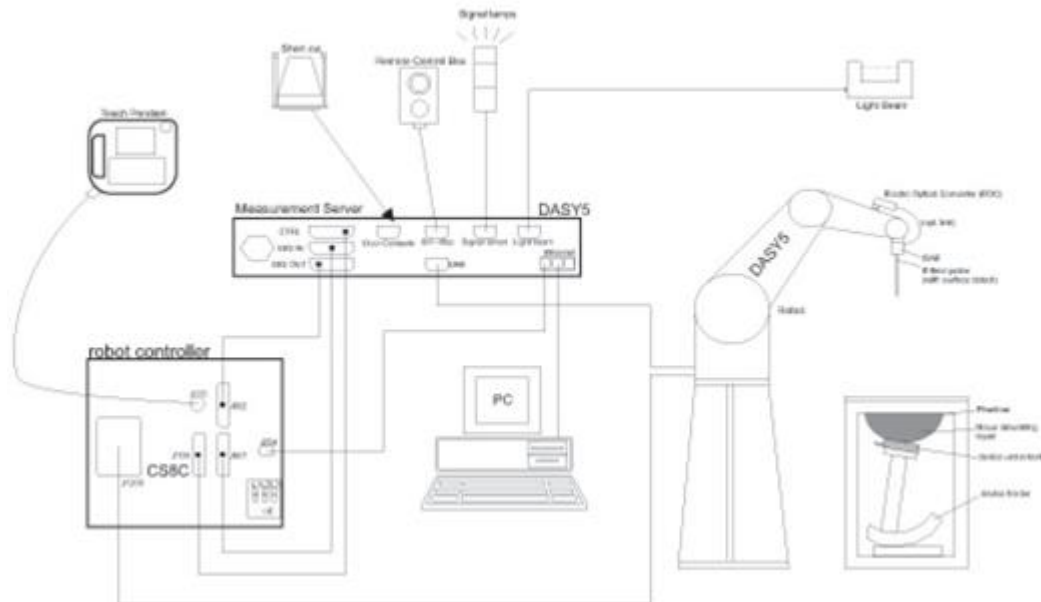
SAR is expressed in units of Watts per kilogram (W/kg)

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

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY 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	4 MHz – 10 GHz Linearity: ± 0.2 dB (30 MHz – 10 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. 13, 2024	Dec. 12, 2025
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 13, 2024	Dec. 12, 2025
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 15, 2024	Oct. 14, 2025
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 16, 2024	Dec. 15, 2025
SPEAG	2450MHz System Validation Kit	D2450V2	924	Nov. 03, 2023	Nov. 01, 2025
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 13, 2024	Dec. 12, 2025
SPEAG	3500MHz System Validation Kit	D3500V2	1076	May. 09, 2022	May. 07, 2025
SPEAG	3700MHz System Validation Kit	D3700V2	1037	May. 09, 2022	May. 07, 2025
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 18, 2022	Aug. 17, 2025
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 12, 2024	Dec. 11, 2025
SPEAG	Data Acquisition Electronics	DAE4	715	Feb. 20, 2025	Feb. 19, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7576	Oct. 10, 2024	Oct. 09, 2025
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1671	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201300653	Jul. 05, 2024	Jul. 04, 2025
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jul. 04, 2024	Jul. 03, 2025
Anritsu	Radio communication analyzer	MT8821C	6272278319	Jul. 03, 2024	Jul. 02, 2025
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 03, 2024	Jul. 02, 2025
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 15, 2024	Oct. 14, 2025
Speag	Dielectric Assessment KIT	DAK-3.5	1144	Aug. 20, 2024	Aug. 19, 2025
Agilent	Signal Generator	N5181A	MY50145381	Dec. 26, 2024	Dec. 25, 2025
R&S	Signal Generator	SMB100A	175779	Dec. 26, 2024	Dec. 25, 2025
Anritsu	Power Sensor	MA2411B	1306099	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Meter	ML2495A	1349001	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Sensor	MA2411B	1218010	Oct. 14, 2024	Oct. 13, 2025
Anritsu	Power Meter	ML2495A	1339473	Dec. 26, 2024	Dec. 25, 2025
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 26, 2024	Dec. 25, 2025
R&S	Spectrum Analyzer	FSP7	100818	Jul. 04, 2024	Jul. 03, 2025
TES	Hygrometer	1310	200505600	Jul. 08, 2024	Jul. 07, 2025
Anymetre	Thermo-Hygrometer	JR593	2015030903	Dec. 28, 2024	Dec. 27, 2025
Anymetre	Thermo-Hygrometer	JR593	2015102801	Dec. 28, 2024	Dec. 27, 2025
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
Mini-Circuits	Amplifier	ZVA-183W-S+	726202215	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Jinkexinhua	Attenuator	10db-8G	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.

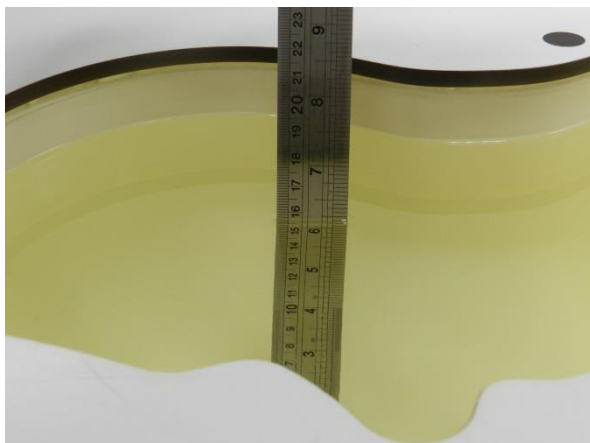


Fig 11.1 Photo of Liquid Height for Head SAR



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 (ϵ_r)
For Head								
750	41.1	57.0	0.2	1.4	0.2	0	0.89	41.9
835	40.3	57.9	0.2	1.4	0.2	0	0.90	41.5
1800, 1900, 2000	55.2	0	0	0.3	0	44.5	1.40	40.0
2450	55.0	0	0	0	0	45.0	1.80	39.2
2600	54.8	0	0	0.1	0	45.1	1.96	39.0

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	Head	22.4	0.905	43.086	0.89	41.90	1.69	2.83	±5	2025/3/13
750	Head	22.5	0.914	43.025	0.89	41.90	2.70	2.68	±5	2025/3/19
835	Head	22.5	0.930	42.852	0.90	41.50	3.33	3.26	±5	2025/3/13
835	Head	22.4	0.941	42.781	0.90	41.50	4.56	3.09	±5	2025/3/20
1750	Head	22.7	1.352	41.199	1.37	40.10	-1.31	2.74	±5	2025/3/15
1750	Head	22.5	1.350	41.215	1.37	40.10	-1.46	2.78	±5	2025/3/23
1900	Head	22.1	1.434	40.980	1.40	40.00	2.43	2.45	±5	2025/3/15
1900	Head	22.2	1.445	40.929	1.40	40.00	3.21	2.32	±5	2025/3/25
2450	Head	22.2	1.798	40.250	1.80	39.20	-0.11	2.68	±5	2025/3/16
2450	Head	22.3	1.782	40.252	1.80	39.20	-1.00	2.68	±5	2025/3/27
2600	Head	22.5	1.916	40.041	1.96	39.00	-2.24	2.67	±5	2025/3/16
2600	Head	22.4	1.919	40.056	1.96	39.00	-2.09	2.71	±5	2025/3/28
3500	Head	22.6	2.981	39.219	2.91	37.90	2.44	3.48	±5	2025/3/17
3500	Head	22.7	2.848	37.132	2.91	37.90	-2.13	-2.03	±5	2025/3/29
3700	Head	22.3	3.141	38.960	3.12	37.70	0.67	3.34	±5	2025/3/17
3700	Head	22.6	3.002	36.879	3.12	37.70	-3.78	-2.18	±5	2025/3/30
3900	Head	22.1	3.312	38.755	3.33	37.51	-0.54	3.32	±5	2025/3/19
3900	Head	22.7	3.194	36.654	3.33	37.51	-4.08	-2.28	±5	2025/3/30
5250	Head	22.3	4.527	36.985	4.71	35.95	-3.89	2.88	±5	2025/3/22
5250	Head	22.3	4.549	37.042	4.71	35.95	-3.42	3.04	±5	2025/4/1
5600	Head	22.7	4.856	36.528	5.07	35.50	-4.22	2.90	±5	2025/3/22
5600	Head	22.5	4.883	36.580	5.07	35.50	-3.69	3.04	±5	2025/4/2
5800	Head	22.2	5.033	36.220	5.27	35.30	-4.50	2.61	±5	2025/3/22
5800	Head	22.4	5.061	36.278	5.27	35.30	-3.97	2.77	±5	2025/4/3

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.

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 (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2025/3/13	750	Head	250	1099	7576	715	2.160	8.280	8.64	4.35	1.430	5.370	5.72	6.52
2025/3/19	750	Head	250	1099	7576	715	2.100	8.280	8.4	1.45	1.390	5.370	5.56	3.54
2025/3/13	835	Head	250	4d162	7576	715	2.400	9.080	9.6	5.73	1.410	5.850	5.64	-3.59
2025/3/20	835	Head	250	4d162	7576	715	2.190	9.080	8.76	-3.52	1.420	5.850	5.68	-2.91
2025/3/15	1750	Head	250	1137	7576	715	8.970	36.800	35.88	-2.50	4.780	19.600	19.12	-2.45
2025/3/23	1750	Head	250	1137	7576	715	8.570	36.800	34.28	-6.85	4.590	19.600	18.36	-6.33
2025/3/15	1900	Head	250	5d182	7576	715	10.300	39.800	41.2	3.52	5.390	21.000	21.56	2.67
2025/3/25	1900	Head	250	5d182	7576	715	9.430	39.800	37.72	-5.23	5.120	21.000	20.48	-2.48
2025/3/16	2450	Head	250	924	7576	715	13.200	52.300	52.8	0.96	6.170	24.500	24.68	0.73
2025/3/27	2450	Head	250	924	7576	715	12.200	52.300	48.8	-6.69	5.850	24.500	23.4	-4.49
2025/3/16	2600	Head	250	1070	7576	715	14.300	56.500	57.2	1.24	6.440	25.200	25.76	2.22
2025/3/28	2600	Head	250	1070	7576	715	13.600	56.500	54.4	-3.72	6.070	25.200	24.28	-3.65
2025/3/17	3500	Head	100	1076	7576	715	6.590	66.200	65.9	-0.45	2.530	25.500	25.3	-0.78
2025/3/29	3500	Head	100	1076	7576	715	6.570	66.200	65.7	-0.76	2.470	25.500	24.7	-3.14
2025/3/17	3700	Head	100	1037	7576	715	7.160	66.700	71.6	7.35	2.610	24.600	26.1	6.10
2025/3/30	3700	Head	100	1037	7576	715	6.750	66.700	67.5	1.20	2.500	24.600	25	1.63
2025/3/19	3900	Head	100	1022	7576	715	6.600	66.400	66	-0.60	2.300	23.700	23	-2.95
2025/3/30	3900	Head	100	1022	7576	715	6.620	66.400	66.2	-0.30	2.450	23.700	24.5	3.38
2025/3/22	5250	Head	100	1341	7576	715	7.740	79.100	77.4	-2.15	2.170	22.400	21.7	-3.13
2025/4/1	5250	Head	100	1341	7576	715	7.760	79.100	77.6	-1.90	2.210	22.400	22.1	-1.34
2025/3/22	5600	Head	100	1341	7576	715	8.800	82.800	88	6.28	2.480	23.800	24.8	4.20
2025/4/2	5600	Head	100	1341	7576	715	8.640	82.800	86.4	4.35	2.440	23.800	24.4	2.52
2025/3/22	5800	Head	100	1341	7576	715	8.390	79.900	83.9	5.01	2.330	22.900	23.3	1.75
2025/4/3	5800	Head	100	1341	7576	715	7.950	79.900	79.5	-0.50	2.250	22.900	22.5	-1.75

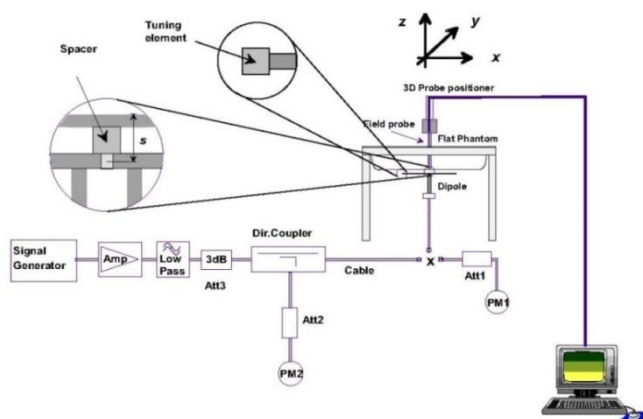


Fig 11.3.1 System Performance Check Setup



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.

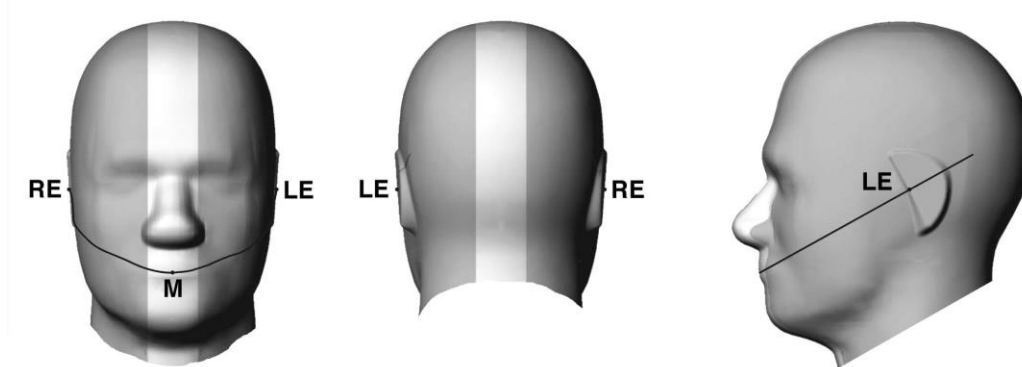


Fig 12.1.1 Front, back, and side views of SAM twin phantom

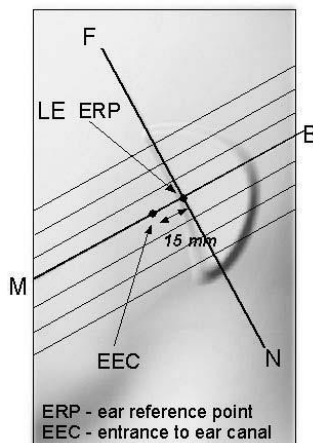


Fig 12.1.2 Close-up side view of phantom showing the ear region.

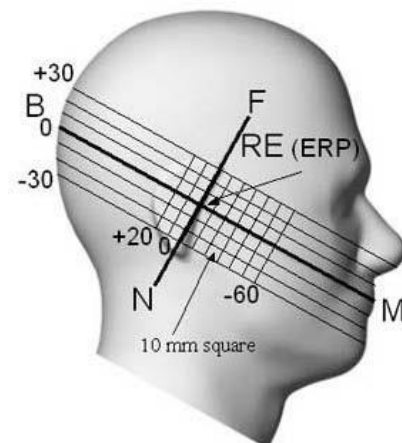


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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.

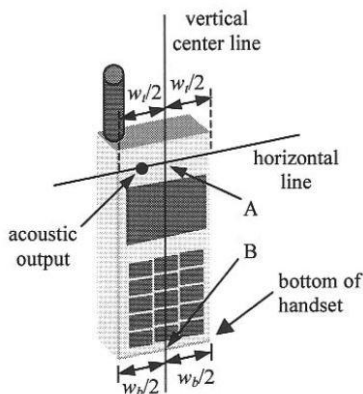


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

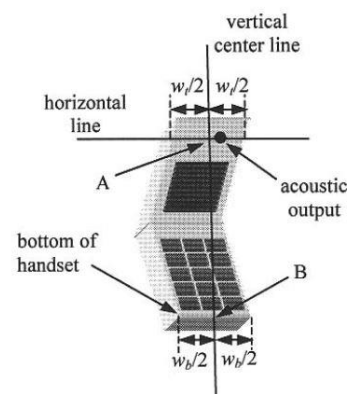


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

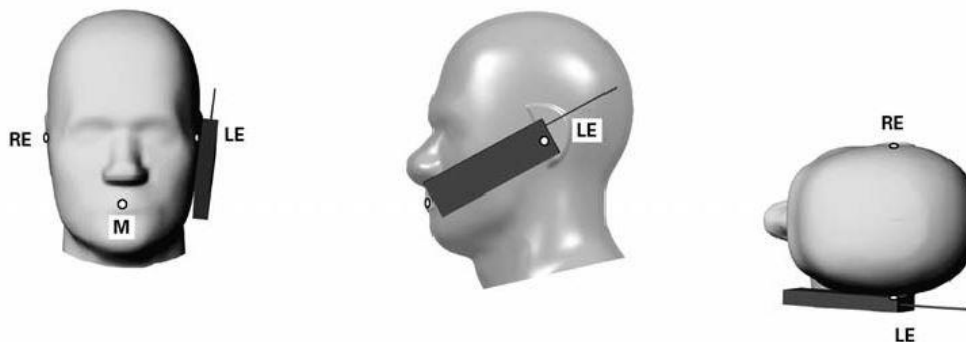


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

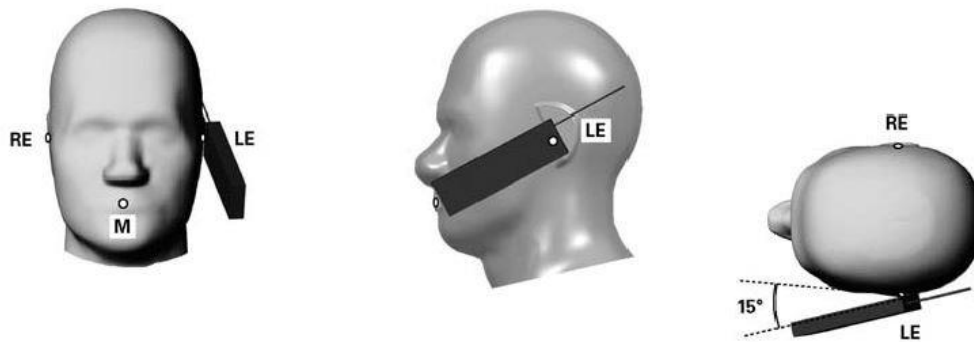


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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 handset attached to the handset.

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

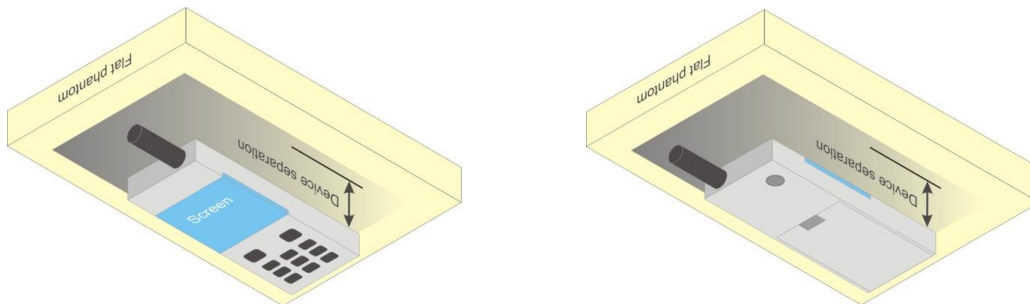


Fig 12.4 Body Worn Position

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 ($L \times W \geq 9$ cm x 5 cm) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

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

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. Per KDB 447498 D01, 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 $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

Table C.10.1.4: β values for transmitter characteristics tests with HS-DPCCH

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{hs} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

- 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.		

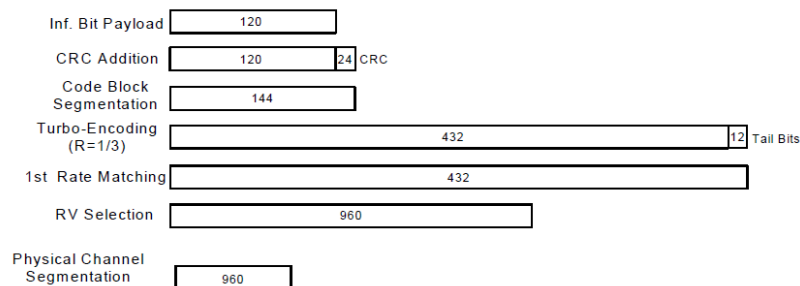


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK) Setup Configuration

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>

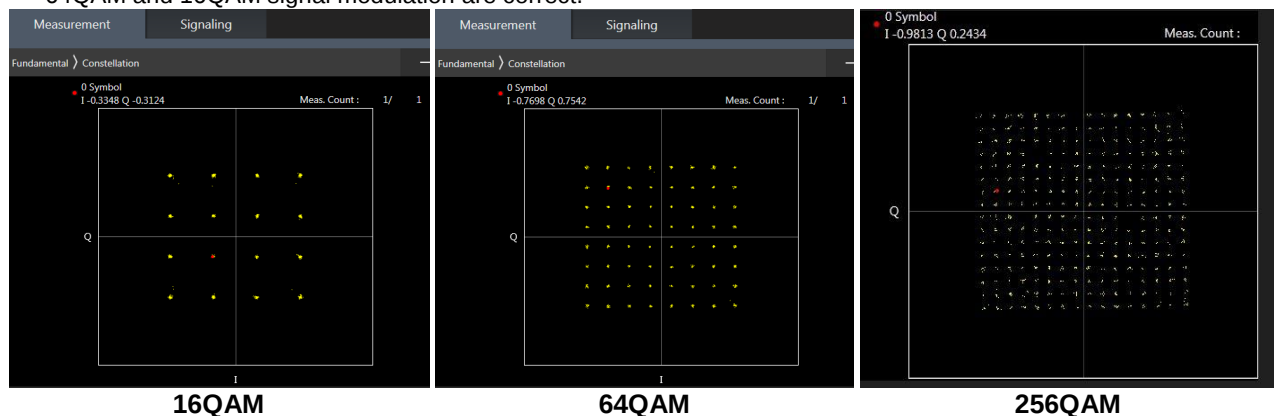
General Note:

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 $\leq \frac{1}{4}$ 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 Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 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 B17 / B5 / B4 / B38 SAR test was covered by B12 / B26 / B66 / 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, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 256QAM, 64QAM and 16QAM signal modulation are correct.



<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

- 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.

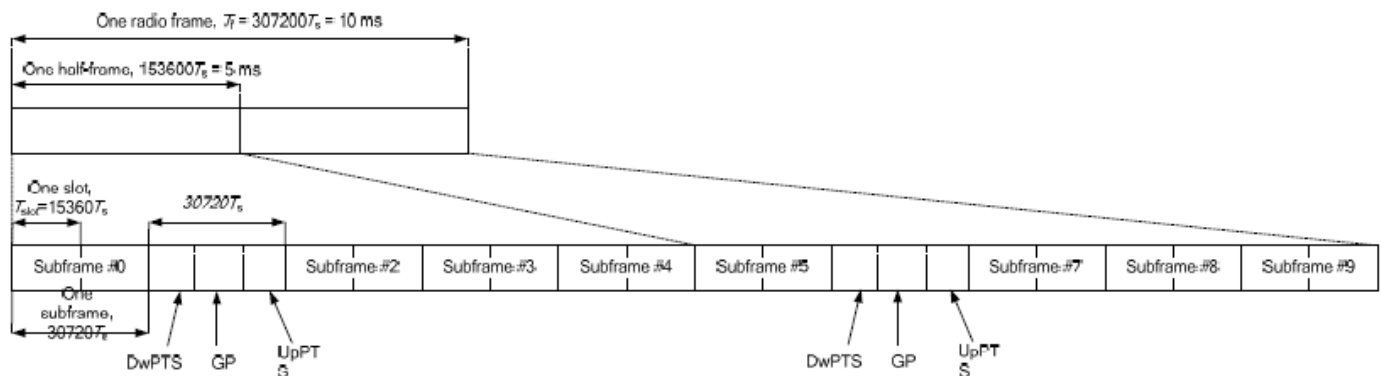


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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:

For LTE TDD Power class 2

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

For LTE TDD Power class 3

- 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.

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

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

<LTE Carrier Aggregation>

The detailed LTE Carrier Aggregation conducted power table can refer to Appendix F.

General Note:

1. Per Oct. 2024 TCB workshop, the downlink (DL) pertains to receiver functionality, thus it is not related to RF exposure compliance limits related to cumulative effects of different transmitters.
2. Per Oct. 2024 TCB workshop, equipment authorization applications shall refer to the worst-case UL powers resulting from all the possible modes of operations. Accordingly, CA-DL cases do not need to be analyzed separately, unless pertinent to establishing UL power setting.
3. Per Oct. 2024 TCB workshop, Manufacturer declares that TX power measurement for multiple DL CA configurations is deemed not required as the DL CA has no impact on the TX power according to preliminary scan. TX power measured in LTE standalone operation represents the worst case.
4. This device supports LTE carrier aggregation in the downlink. All 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.

LTE Carrier Aggregation Conducted Power (Uplink)

Intra-band CA	Ant			
7C	Ant 5	Ant 6	Ant 11	Ant 7
38C	Ant 5	Ant 6	Ant 11	Ant 7

<Intra-band>
General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B7/38 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. 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.
- iii. 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.

<Inter-band>

LTE Inter CA	LTE Band	Ant
CA_2A-4A	LTE Band 2	Ant 5/6
	LTE Band 4	Ant 5/6/11/7
CA_2A-7A	LTE Band 2	Ant 5/6
	LTE Band 7	Ant 5/6/11/7
CA_4A-5A	LTE Band 4	Ant 5/6/11/7
	LTE Band 5	Ant 1/0
CA_4A-7A	LTE Band 4	Ant 5/6/11/7
	LTE Band 7	Ant 5/6/11/7
CA_5A-7A	LTE Band 5	Ant 1/0
	LTE Band 7	Ant 5/6/11/7
CA_5A-66A	LTE Band 5	Ant 1/0
	LTE Band 66	Ant 5/6/11/7
CA_7A-66A	LTE Band 7	Ant 5/6/11/7
	LTE Band 66	Ant 5/6/11/7

General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. The product implements MediaTek TA-SAR feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window. To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
3. For LTE inter-band CA mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. TA-SAR algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit. In Part 1 Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/n12/n26 /n66/n38/n41 /n77/n78 is SA mode.
2. 5G NR n5/n7/n26/n66/n38/n41/n77/n78 is NSA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
 - c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
 - d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
 - f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. 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. This device supports HPUE mode for 5G NR n41 /n78 with higher power, so HPUE mode was chosen to perform full SAR testing and HPUE SAR can represent power class 3 level SAR.
10. For NR inter-band ULCA mode, MediaTek's TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure between two NR bands. TA-SAR algorithm controls the total RF exposure base on NR inter band ULCA bands to not exceed FCC limit.

<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	Band	Ant
DC_7A-n5A	LTE Band 7	Ant 5/6/11/7
	FR1 n5	Ant 1/0
DC_66A-n5A	LTE Band 66	Ant 5/6/11/7
	FR1 n5	Ant 1/0
DC_2A-n7A	LTE Band 2	Ant 5/6/11/7
	FR1 n7	Ant 5/6/11/7
DC_4A-n7A	LTE Band 4	Ant 5/6/11/7
	FR1 n7	Ant 5/6/11/7
DC_5A-n7A	LTE Band 5	Ant 1/0
	FR1 n7	Ant 5/6/11/7
DC_7A-n7A	LTE Band 7	Ant 5/6/11/7
	FR1 n7	Ant 5/6/11/7
DC_66A-n7A	LTE Band 66	Ant 5/6/11/7
	FR1 n7	Ant 5/6/11/7
DC_7A-n26A	LTE Band 7	Ant 5/6/11/7
	FR1 n26	Ant 1/0
DC_2A-n66A	LTE Band 2	Ant 5/6/11/7
	FR1 n66	Ant 5/6/11/7
DC_4A-n66A	LTE Band 4	Ant 5/6/11/7
	FR1 n66	Ant 5/6/11/7
DC_5A-n66A	LTE Band 5	Ant 1/0
	FR1 n66	Ant 5/6/11/7
DC_7A-n66A	LTE Band 7	Ant 5/6/11/7
	FR1 n66	Ant 5/6/11/7



FCC SAR Test Report

Report No. : FA521816

DC_12A-n66A	LTE Band 12	Ant 1/0
	FR1 n66	Ant 5/6/11/7
DC_66A-n66A	LTE Band 66	Ant 5/6/11/7
	FR1 n66	Ant 5/6/11/7
DC_2A-n38A	LTE Band 2	Ant 5/6/11/7
	FR1 n38	Ant 5/6/11/7
DC_4A-n38A	LTE Band 4	Ant 5/6/11/7
	FR1 n38	Ant 5/6/11/7
DC_5A-n38A	LTE Band 5	Ant 1/0
	FR1 n38	Ant 5/6/11/7
DC_66A-n38A	LTE Band 66	Ant 5/6/11/7
	FR1 n38	Ant 5/6/11/7
DC_2A-n41A	LTE Band 2	Ant 5/6/11/7
	FR1 n41	Ant 5/6/11/7
DC_4A-n41A	LTE Band 4	Ant 5/6/11/7
	FR1 n41	Ant 5/6/11/7
DC_26A-n41A	LTE Band 26	Ant 1/0
	FR1 n41	Ant 5/6/11/7
DC_41A-n41A	LTE Band 41	Ant 5/6/11/7
	FR1 n41	Ant 5/6/11/7
DC_66A-n41A	LTE Band 66	Ant 5/6/11/7
	FR1 n41	Ant 5/6/11/7
DC_7A-n77A	LTE Band 7	Ant 5/6/11/7
	FR1 n77	Ant 9/8/6/0
DC_41A-n77A	LTE Band 41	Ant 5/6/11/7
	FR1 n77	Ant 9/8/6/0
DC_2A-n78A	LTE Band 2	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0
DC_4A-n78A	LTE Band 4	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0
DC_5A-n78A	LTE Band 5	Ant 1/0
	FR1 n78	Ant 9/8/6/0
DC_7A-n78A	LTE Band 7	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0
DC_26A-n78A	LTE Band 26	Ant 1/0
	FR1 n78	Ant 9/8/6/0
DC_38A-n78A	LTE Band 38	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0
DC_41A-n78A	LTE Band 41	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0
DC_66A-n78A	LTE Band 66	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0

<Inter-Band CA Configuration>

NR Inter CA	NR Band	Ant
CA_n5A-n7A	FR1 n5	Ant 1/0
	FR1 n7	Ant 5/6/11/7
CA_n5A-n78A	FR1 n5	Ant 1/0
	FR1 n78	Ant 9/8/6/0
CA_n7A-n26A	FR1 n7	Ant 5/6/11/7
	FR1 n26	Ant 1/0
CA_n7A-n78A	FR1 n7	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0
CA_n26A-n78A	FR1 n26	Ant 1/0
	FR1 n78	Ant 9/8/6/0
CA_n41A-n78A	FR1 n41	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0

<WLAN Conducted Power>

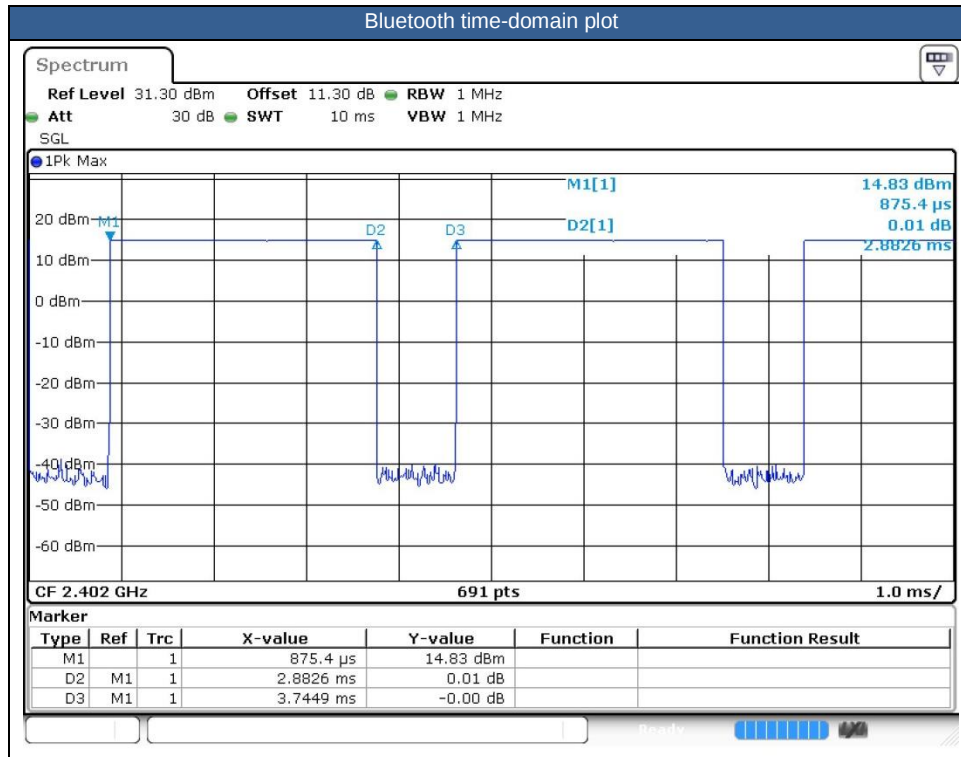
General Note:

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. The 2.4GHz/5GHz WLAN can transmit in SISO/MIMO antenna mode.
7. 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.
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.
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 are 76.97% 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/Bluetooth signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
 - f. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 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 receiver detect mechanism trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneously with WWAN/BT, the device power will be reduced power at head, body-worn, hotspot and extremity conditions.
6. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
7. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
 - a. For this device SAR for WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of WLAN 2.4GHz /WLAN 5.2/5.3/5.5/5.8GHz 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.
8. 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).
9. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
10. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.

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/256QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 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 B17 / B5 / B4 / B38 SAR test was covered by B12 / B26 / B66 / 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. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - e. Smaller bandwidth output power for each RB allocation configuration for this device will not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - f. For 5G FR1 n2/n5/n7/n12 /n66/n38/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.

ECI status description:

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

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

Exposure Condition	ECI	Trigger conditions
Head SAR-Standalone	ECI 5	Receiver on
Head SAR- Simultaneous	ECI 10	Receiver on + WLAN/BT
Body worn/Extremity SAR-Standalone	ECI 3	Receiver off
Hotspot Body worn/Extremity SAR- Simultaneous	ECI 8	Receiver off + WLAN/BT



15.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750 MHz																				
01	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23095	707.5	19.75	20.80	1.274	-	-	0.09	0.390	0.497
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23095	707.5	19.75	20.80	1.274	-	-	0.09	0.070	0.089
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23095	707.5	19.75	20.80	1.274	-	-	-0.02	0.616	0.784
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23095	707.5	19.75	20.80	1.274	-	-	-0.12	0.078	0.099
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 10	23095	707.5	19.22	20.30	1.282	-	-	0.06	0.530	0.680
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 5	23095	707.5	19.74	20.80	1.276	-	-	0.03	0.394	0.503
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 5	23095	707.5	19.74	20.80	1.276	-	-	0.1	0.067	0.086
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 5	23095	707.5	19.74	20.80	1.276	-	-	0.07	0.576	0.735
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 5	23095	707.5	19.74	20.80	1.276	-	-	0.07	0.076	0.097
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	23095	707.5	22.88	23.80	1.236	-	-	-0.15	0.155	0.192
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	23095	707.5	22.88	23.80	1.236	-	-	0.06	0.102	0.126
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	23095	707.5	22.88	23.80	1.236	-	-	0.03	0.134	0.166
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	23095	707.5	22.88	23.80	1.236	-	-	-0.05	0.070	0.087
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 5	23095	707.5	22.33	23.30	1.250	-	-	-0.08	0.142	0.178
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 5	23095	707.5	22.33	23.30	1.250	-	-	-0.03	0.093	0.116
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 5	23095	707.5	22.33	23.30	1.250	-	-	0.02	0.115	0.144
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 5	23095	707.5	22.33	23.30	1.250	-	-	0.1	0.067	0.084
02	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23230	782	20.20	21.30	1.288	-	-	-0.15	0.231	0.298
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23230	782	20.20	21.30	1.288	-	-	-0.08	0.042	0.054
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23230	782	20.20	21.30	1.288	-	-	-0.13	0.461	0.594
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23230	782	20.20	21.30	1.288	-	-	0.05	0.055	0.071
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 10	23230	782	19.18	20.30	1.294	-	-	0.09	0.371	0.480
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 5	23230	782	20.16	21.30	1.300	-	-	0.09	0.228	0.296
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 5	23230	782	20.16	21.30	1.300	-	-	-0.02	0.040	0.052
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 5	23230	782	20.16	21.30	1.300	-	-	0.07	0.433	0.563
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 5	23230	782	20.16	21.30	1.300	-	-	0.02	0.053	0.069
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	23230	782	22.88	23.80	1.236	-	-	-0.1	0.148	0.183
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	23230	782	22.88	23.80	1.236	-	-	-0.09	0.091	0.112
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	23230	782	22.88	23.80	1.236	-	-	-0.01	0.117	0.145
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	23230	782	22.88	23.80	1.236	-	-	-0.05	0.067	0.083
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 5	23230	782	22.53	23.30	1.194	-	-	-0.16	0.131	0.156
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 5	23230	782	22.53	23.30	1.194	-	-	0.02	0.079	0.094
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 5	23230	782	22.53	23.30	1.194	-	-	0.09	0.100	0.119
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 5	23230	782	22.53	23.30	1.194	-	-	-0.04	0.057	0.068
04	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	141500	707.5	18.20	19.80	1.445	-	-	0.16	0.253	0.366
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	141500	707.5	18.20	19.80	1.445	-	-	-0.06	0.047	0.068
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	141500	707.5	18.20	19.80	1.445	-	-	0.14	0.464	0.671
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	141500	707.5	18.20	19.80	1.445	-	-	-0.07	0.054	0.078
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 10	141500	707.5	17.12	18.80	1.472	-	-	0.08	0.376	0.554
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	141500	707.5	18.19	19.80	1.449	-	-	-0.03	0.232	0.336
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	141500	707.5	18.19	19.80	1.449	-	-	0.01	0.046	0.067
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	141500	707.5	18.19	19.80	1.449	-	-	-0.1	0.435	0.630
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	141500	707.5	18.19	19.80	1.449	-	-	0.04	0.048	0.070
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	141500	707.5	22.77	24.20	1.390	-	-	-0.14	0.142	0.197
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	141500	707.5	22.77	24.20	1.390	-	-	-0.13	0.093	0.129
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	141500	707.5	22.77	24.20	1.390	-	-	-0.06	0.127	0.177
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	141500	707.5	22.77	24.20	1.390	-	-	0.04	0.074	0.103
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	141500	707.5	22.75	24.20	1.396	-	-	0.11	0.137	0.191
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	141500	707.5	22.75	24.20	1.396	-	-	-0.03	0.082	0.115
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	141500	707.5	22.75	24.20	1.396	-	-	0.06	0.111	0.155



FCC SAR Test Report

Report No. : FA521816

	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	141500	707.5	22.75	24.20	1.396	-	-	0.04	0.065	0.091
835 MHz																				
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Cheek	0mm	Ant 0	ECI 5	189	836.4	25.42	26.60	1.312	-	-	0.05	0.356	0.467
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Tilted	0mm	Ant 0	ECI 5	189	836.4	25.42	26.60	1.312	-	-	-0.06	0.061	0.080
05	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	189	836.4	25.42	26.60	1.312	-	-	-0.16	0.639	0.838
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Tilted	0mm	Ant 0	ECI 5	189	836.4	25.42	26.60	1.312	-	-	-0.15	0.069	0.091
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	128	824.2	25.30	26.60	1.349	-	-	0.08	0.617	0.832
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	251	848.8	25.37	26.60	1.327	-	-	0.12	0.622	0.826
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 10	189	836.4	24.52	26.10	1.439	-	-	0.08	0.546	0.786
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Cheek	0mm	Ant 1	ECI 5	189	836.4	28.13	29.50	1.371	-	-	0.14	0.187	0.256
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Tilted	0mm	Ant 1	ECI 5	189	836.4	28.13	29.50	1.371	-	-	-0.14	0.081	0.111
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 1	ECI 5	189	836.4	28.13	29.50	1.371	-	-	0.09	0.100	0.137
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Tilted	0mm	Ant 1	ECI 5	189	836.4	28.13	29.50	1.371	-	-	-0.14	0.060	0.082
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 5	4182	836.4	23.40	23.90	1.122	-	-	-0.02	0.317	0.356
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 5	4182	836.4	23.40	23.90	1.122	-	-	0.04	0.054	0.061
06	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 5	4182	836.4	23.40	23.90	1.122	-	-	0.07	0.578	0.649
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 5	4182	836.4	23.40	23.90	1.122	-	-	0.15	0.065	0.073
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 10	4182	836.4	22.40	22.90	1.122	-	-	0.02	0.526	0.590
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 5	4182	836.4	24.28	24.80	1.127	-	-	-0.05	0.301	0.339
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 5	4182	836.4	24.28	24.80	1.127	-	-	-0.13	0.138	0.156
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4182	836.4	24.28	24.80	1.127	-	-	-0.12	0.171	0.193
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 5	4182	836.4	24.28	24.80	1.127	-	-	0.07	0.092	0.104
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	26865	831.5	20.15	21.00	1.216	-	-	0.04	0.389	0.473
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	26865	831.5	20.15	21.00	1.216	-	-	-0.06	0.066	0.080
07	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	26865	831.5	20.15	21.00	1.216	-	-	-0.13	0.651	0.792
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	26865	831.5	20.15	21.00	1.216	-	-	-0.04	0.082	0.100
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 10	26865	831.5	19.55	20.50	1.245	-	-	0.02	0.560	0.697
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	ECI 5	26865	831.5	20.13	21.00	1.222	-	-	-0.12	0.378	0.462
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	ECI 5	26865	831.5	20.13	21.00	1.222	-	-	0.07	0.064	0.078
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	ECI 5	26865	831.5	20.13	21.00	1.222	-	-	-0.02	0.622	0.760
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	ECI 5	26865	831.5	20.13	21.00	1.222	-	-	0.02	0.080	0.098
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	26865	831.5	24.20	25.00	1.202	-	-	-0.06	0.286	0.344
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	26865	831.5	24.20	25.00	1.202	-	-	0.05	0.124	0.149
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	26865	831.5	24.20	25.00	1.202	-	-	-0.1	0.155	0.186
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	26865	831.5	24.20	25.00	1.202	-	-	-0.13	0.088	0.106
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	ECI 5	26865	831.5	23.67	24.50	1.211	-	-	0.13	0.275	0.333
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	ECI 5	26865	831.5	23.67	24.50	1.211	-	-	0.07	0.118	0.143
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 5	26865	831.5	23.67	24.50	1.211	-	-	-0.14	0.148	0.179
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	ECI 5	26865	831.5	23.67	24.50	1.211	-	-	0.07	0.085	0.103
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	166300	831.5	19.69	20.80	1.291	-	-	0.09	0.296	0.382
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	166300	831.5	19.69	20.80	1.291	-	-	0.05	0.053	0.068
08	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	166300	831.5	19.69	20.80	1.291	-	-	0.13	0.550	0.710
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	166300	831.5	19.69	20.80	1.291	-	-	0.15	0.063	0.081
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 10	166300	831.5	19.19	20.30	1.291	-	-	0.02	0.496	0.640
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	166300	831.5	19.67	20.80	1.297	-	-	0.15	0.278	0.361
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	166300	831.5	19.67	20.80	1.297	-	-	0.15	0.051	0.066
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	166300	831.5	19.67	20.80	1.297	-	-	0.16	0.521	0.676
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	166300	831.5	19.67	20.80	1.297	-	-	0.05	0.062	0.080
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	166300	831.5	24.51	25.70	1.315	-	-	-0.05	0.319	0.420
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	166300	831.5	24.51	25.70	1.315	-	-	-0.12	0.150	0.197
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	166300	831.5	24.51	25.70	1.315	-	-	-0.11	0.204	0.268
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	166300	831.5	24.51	25.70	1.315	-	-	0.06	0.115	0.151
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	166300	831.5	24.45	25.70	1.334	-	-	0.09	0.262	0.349
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	166300	831.5	24.45	25.70	1.334	-	-	-0.14	0.132	0.176
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	166300	831.5	24.45	25.70	1.334	-	-	-0.04	0.174	0.232
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	166300	831.5	24.45	25.70	1.334	-	-	0.01	0.095	0.127



1750 MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	ECI 5	1413	1732.6	24.15	24.80	1.161	-	-	-0.08	0.156	0.181
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	ECI 5	1413	1732.6	24.15	24.80	1.161	-	-	-0.05	0.052	0.060
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 5	1413	1732.6	24.15	24.80	1.161	-	-	0.16	0.182	0.211
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	ECI 5	1413	1732.6	24.15	24.80	1.161	-	-	-0.13	0.073	0.085
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	1413	1732.6	15.99	16.40	1.099	-	-	0.03	0.527	0.579
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 6	ECI 5	1413	1732.6	15.99	16.40	1.099	-	-	-0.05	0.414	0.455
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 6	ECI 5	1413	1732.6	15.99	16.40	1.099	-	-	0.08	0.247	0.271
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 6	ECI 5	1413	1732.6	15.99	16.40	1.099	-	-	-0.02	0.352	0.387
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 10	1413	1732.6	14.94	15.40	1.112	-	-	0.09	0.431	0.479
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 7	ECI 5	1413	1732.6	15.90	16.60	1.175	-	-	0.02	0.120	0.141
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 7	ECI 5	1413	1732.6	15.90	16.60	1.175	-	-	0.11	0.080	0.094
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 7	ECI 5	1413	1732.6	15.90	16.60	1.175	-	-	0.15	0.508	0.597
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 7	ECI 5	1413	1732.6	15.90	16.60	1.175	-	-	-0.06	0.183	0.215
12	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 11	ECI 5	1413	1732.6	18.77	19.30	1.130	-	-	-0.06	0.566	0.639
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 11	ECI 5	1413	1732.6	18.77	19.30	1.130	-	-	0.1	0.178	0.201
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 11	ECI 5	1413	1732.6	18.77	19.30	1.130	-	-	-0.08	0.148	0.167
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 11	ECI 5	1413	1732.6	18.77	19.30	1.130	-	-	-0.11	0.059	0.067
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 5	20175	1732.5	15.61	16.30	1.172	-	-	0.14	0.112	0.131
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 5	20175	1732.5	15.61	16.30	1.172	-	-	0.09	0.072	0.084
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	20175	1732.5	15.61	16.30	1.172	-	-	-0.12	0.393	0.461
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 5	20175	1732.5	15.61	16.30	1.172	-	-	-0.06	0.163	0.191
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 5	20175	1732.5	15.53	16.30	1.194	-	-	0.14	0.103	0.123
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 5	20175	1732.5	15.53	16.30	1.194	-	-	0.09	0.063	0.075
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	20175	1732.5	15.53	16.30	1.194	-	-	-0.03	0.367	0.438
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 5	20175	1732.5	15.53	16.30	1.194	-	-	-0.14	0.156	0.186
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	20175	1732.5	20.30	21.00	1.175	-	-	0.03	0.780	0.916
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	20175	1732.5	20.30	21.00	1.175	-	-	0.06	0.271	0.318
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	20175	1732.5	20.30	21.00	1.175	-	-	0.09	0.220	0.258
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	20175	1732.5	20.30	21.00	1.175	-	-	-0.07	0.083	0.098
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	20050	1720	20.19	21.00	1.205	-	-	0.07	0.729	0.878
13	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	20300	1745	20.22	21.00	1.197	-	-	-0.09	0.843	1.009
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 10	20300	1745	19.58	20.50	1.236	-	-	0.05	0.768	0.949
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	20175	1732.5	20.28	21.00	1.180	-	-	-0.08	0.752	0.888
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	20175	1732.5	20.28	21.00	1.180	-	-	-0.09	0.250	0.295
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	20175	1732.5	20.28	21.00	1.180	-	-	0.16	0.219	0.258
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	20175	1732.5	20.28	21.00	1.180	-	-	0.04	0.079	0.093
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	20050	1720	20.18	21.00	1.208	-	-	0.03	0.688	0.831
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	20300	1745	20.19	21.00	1.205	-	-	-0.03	0.796	0.959
	LTE Band 4	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 11	ECI 5	20175	1732.5	20.25	21.00	1.189	-	-	-0.05	0.784	0.932
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	132322	1745	24.30	25.00	1.175	-	-	0.02	0.169	0.199
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	132322	1745	24.30	25.00	1.175	-	-	0.11	0.054	0.063
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	132322	1745	24.30	25.00	1.175	-	-	-0.05	0.176	0.207
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	132322	1745	24.30	25.00	1.175	-	-	0.02	0.081	0.095
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	132322	1745	23.40	24.50	1.288	-	-	-0.06	0.145	0.187
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	132322	1745	23.40	24.50	1.288	-	-	0.09	0.050	0.064
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	132322	1745	23.40	24.50	1.288	-	-	0.09	0.145	0.187
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	132322	1745	23.40	24.50	1.288	-	-	-0.11	0.065	0.084
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	132322	1745	16.45	17.10	1.161	-	-	0	0.573	0.666
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 5	132322	1745	16.45	17.10	1.161	-	-	0.1	0.494	0.574
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 5	132322	1745	16.45	17.10	1.161	-	-	0.15	0.289	0.336
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 5	132322	1745	16.45	17.10	1.161	-	-	-0.15	0.411	0.477
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	132322	1745	16.42	17.10	1.169	-	-	-0.16	0.550	0.643
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 5	132322	1745	16.42	17.10	1.169	-	-	0.09	0.475	0.556
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 5	132322	1745	16.42	17.10	1.169	-	-	0.11	0.284	0.332
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 5	132322	1745	16.42	17.10	1.169	-	-	0.1	0.401	0.469



FCC SAR Test Report

Report No. : FA521816

	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 5	132322	1745	15.60	16.80	1.318	-	-	0.05	0.145	0.191
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 5	132322	1745	15.60	16.80	1.318	-	-	0.01	0.097	0.128
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	132322	1745	15.60	16.80	1.318	-	-	0.13	0.493	0.650
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 5	132322	1745	15.60	16.80	1.318	-	-	-0.03	0.211	0.278
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 5	132322	1745	15.57	16.80	1.327	-	-	-0.06	0.137	0.182
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 5	132322	1745	15.57	16.80	1.327	-	-	0	0.090	0.119
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	132322	1745	15.57	16.80	1.327	-	-	-0.05	0.443	0.588
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 5	132322	1745	15.57	16.80	1.327	-	-	-0.06	0.195	0.259
14	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	132322	1745	20.20	20.90	1.175	-	-	-0.02	0.846	0.994
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	132322	1745	20.20	20.90	1.175	-	-	-0.08	0.287	0.337
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	132322	1745	20.20	20.90	1.175	-	-	-0.1	0.203	0.239
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	132322	1745	20.20	20.90	1.175	-	-	0.15	0.082	0.096
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	132072	1720	20.15	20.90	1.189	-	-	-0.05	0.786	0.934
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	132572	1770	20.18	20.90	1.180	-	-	-0.1	0.774	0.914
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	132322	1745	20.18	20.90	1.180	-	-	-0.05	0.793	0.936
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	132322	1745	20.18	20.90	1.180	-	-	0.13	0.272	0.321
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	132322	1745	20.18	20.90	1.180	-	-	0.16	0.195	0.230
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	132322	1745	20.18	20.90	1.180	-	-	-0.13	0.080	0.094
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	132072	1720	20.12	20.90	1.197	-	-	0.07	0.765	0.916
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	132572	1770	20.16	20.90	1.186	-	-	-0.1	0.766	0.908
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 11	ECI 5	132322	1745	20.12	20.90	1.197	-	-	-0.15	0.743	0.889
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	849000	1745	24.26	25.40	1.300	-	-	-0.07	0.155	0.202
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	849000	1745	24.26	25.40	1.300	-	-	0.13	0.067	0.087
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	849000	1745	24.26	25.40	1.300	-	-	-0.13	0.186	0.242
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	849000	1745	24.26	25.40	1.300	-	-	-0.06	0.090	0.117
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	849000	1745	24.20	25.40	1.318	-	-	-0.05	0.151	0.199
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	849000	1745	24.20	25.40	1.318	-	-	-0.09	0.060	0.079
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	849000	1745	24.20	25.40	1.318	-	-	-0.05	0.179	0.236
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	849000	1745	24.20	25.40	1.318	-	-	0.05	0.089	0.117
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	849000	1745	16.10	16.60	1.122	-	-	-0.02	0.580	0.651
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	849000	1745	16.10	16.60	1.122	-	-	0.14	0.432	0.485
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	849000	1745	16.10	16.60	1.122	-	-	0.15	0.257	0.288
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	849000	1745	16.10	16.60	1.122	-	-	-0.12	0.365	0.410
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	849000	1745	16.08	16.60	1.127	-	-	-0.15	0.560	0.631
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	849000	1745	16.08	16.60	1.127	-	-	-0.01	0.425	0.479
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	849000	1745	16.08	16.60	1.127	-	-	-0.09	0.241	0.272
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	849000	1745	16.08	16.60	1.127	-	-	-0.01	0.358	0.404
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	849000	1745	15.99	17.50	1.416	-	-	-0.16	0.120	0.170
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	849000	1745	15.99	17.50	1.416	-	-	0.15	0.067	0.095
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	849000	1745	15.99	17.50	1.416	-	-	-0.15	0.549	0.777
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	849000	1745	15.99	17.50	1.416	-	-	0.12	0.174	0.246
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	849000	1745	15.96	17.50	1.426	-	-	-0.1	0.131	0.187
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	849000	1745	15.96	17.50	1.426	-	-	-0.05	0.089	0.127
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	849000	1745	15.96	17.50	1.426	-	-	-0.13	0.581	0.828
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	849000	1745	15.96	17.50	1.426	-	-	0.1	0.198	0.282
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 7	ECI 10	849000	1745	14.96	16.50	1.426	-	-	0.01	0.466	0.664
	FR1 n66	40M	QPSK	216	0	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	849000	1745	15.93	17.50	1.435	-	-	0.12	0.535	0.768
15	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	849000	1745	20.32	21.30	1.253	-	-	-0.14	0.857	1.074
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	849000	1745	20.32	21.30	1.253	-	-	0.01	0.264	0.331
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	849000	1745	20.32	21.30	1.253	-	-	0.15	0.201	0.252
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	849000	1745	20.32	21.30	1.253	-	-	-0.01	0.076	0.095
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	846000	1730	20.32	21.30	1.253	-	-	0.13	0.826	1.035
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	852000	1760	20.32	21.30	1.253	-	-	-0.07	0.822	1.030
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 10	849000	1745	19.30	20.30	1.259	-	-	0.11	0.662	0.833
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	849000	1745	20.30	21.30	1.259	-	-	0.12	0.822	1.035
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	849000	1745	20.30	21.30	1.259	-	-	0.06	0.258	0.325



FCC SAR Test Report

Report No. : FA521816

	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	349000	1745	20.30	21.30	1.259	-	-	0.11	0.173	0.218
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	349000	1745	20.30	21.30	1.259	-	-	0	0.075	0.094
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	346000	1730	20.30	21.30	1.259	-	-	-0.15	0.805	1.013
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	352000	1760	20.30	21.30	1.259	-	-	-0.14	0.813	1.024
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	349000	1745	20.28	21.30	1.265	-	-	0.04	0.793	1.003
1900 MHz																				
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 5	ECI 5	661	1880	27.42	28.50	1.282	-	-	-0.15	0.088	0.113
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Tilted	0mm	Ant 5	ECI 5	661	1880	27.42	28.50	1.282	-	-	0.06	0.041	0.053
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Cheek	0mm	Ant 5	ECI 5	661	1880	27.42	28.50	1.282	-	-	-0.1	0.076	0.097
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Tilted	0mm	Ant 5	ECI 5	661	1880	27.42	28.50	1.282	-	-	0.07	0.039	0.050
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 6	ECI 5	661	1880	23.34	24.20	1.219	-	-	-0.02	0.710	0.865
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Tilted	0mm	Ant 6	ECI 5	661	1880	23.34	24.20	1.219	-	-	0.1	0.590	0.719
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Cheek	0mm	Ant 6	ECI 5	661	1880	23.34	24.20	1.219	-	-	-0.15	0.305	0.372
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Tilted	0mm	Ant 6	ECI 5	661	1880	23.34	24.20	1.219	-	-	-0.01	0.409	0.499
16	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 6	ECI 5	512	1850.2	23.24	24.20	1.247	-	-	-0.05	0.736	0.918
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 6	ECI 5	810	1909.8	23.31	24.20	1.227	-	-	-0.09	0.715	0.878
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 6	ECI 10	512	1850.2	22.31	23.70	1.377	-	-	0.08	0.643	0.886
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	ECI 5	9400	1880	23.10	23.80	1.175	-	-	-0.12	0.180	0.211
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	ECI 5	9400	1880	23.10	23.80	1.175	-	-	-0.01	0.086	0.101
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 5	9400	1880	23.10	23.80	1.175	-	-	0.16	0.170	0.200
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	ECI 5	9400	1880	23.10	23.80	1.175	-	-	-0.12	0.067	0.079
17	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	9400	1880	16.40	16.80	1.096	-	-	-0.16	0.512	0.561
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 6	ECI 5	9400	1880	16.40	16.80	1.096	-	-	-0.03	0.406	0.445
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 6	ECI 5	9400	1880	16.40	16.80	1.096	-	-	0.12	0.238	0.261
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 6	ECI 5	9400	1880	16.40	16.80	1.096	-	-	0.04	0.273	0.299
	LTE Band 2	20M	QPSK	1	0		Right Cheek	0mm	Ant 5	ECI 5	18900	1880	23.24	23.80	1.138	-	-	-0.03	0.157	0.179
	LTE Band 2	20M	QPSK	1	0		Right Tilted	0mm	Ant 5	ECI 5	18900	1880	23.24	23.80	1.138	-	-	-0.03	0.068	0.077
	LTE Band 2	20M	QPSK	1	0		Left Cheek	0mm	Ant 5	ECI 5	18900	1880	23.24	23.80	1.138	-	-	-0.05	0.131	0.149
	LTE Band 2	20M	QPSK	1	0		Left Tilted	0mm	Ant 5	ECI 5	18900	1880	23.24	23.80	1.138	-	-	0.09	0.064	0.073
	LTE Band 2	20M	QPSK	50	0		Right Cheek	0mm	Ant 5	ECI 5	18900	1880	22.74	23.30	1.138	-	-	0.07	0.138	0.157
	LTE Band 2	20M	QPSK	50	0		Right Tilted	0mm	Ant 5	ECI 5	18900	1880	22.74	23.30	1.138	-	-	-0.15	0.063	0.072
	LTE Band 2	20M	QPSK	50	0		Left Cheek	0mm	Ant 5	ECI 5	18900	1880	22.74	23.30	1.138	-	-	-0.11	0.117	0.133
	LTE Band 2	20M	QPSK	50	0		Left Tilted	0mm	Ant 5	ECI 5	18900	1880	22.74	23.30	1.138	-	-	-0.1	0.058	0.066
	LTE Band 2	20M	QPSK	1	0		Right Cheek	0mm	Ant 6	ECI 5	18900	1880	16.00	16.90	1.230	-	-	0.1	0.580	0.714
	LTE Band 2	20M	QPSK	1	0		Right Tilted	0mm	Ant 6	ECI 5	18900	1880	16.00	16.90	1.230	-	-	0.04	0.434	0.534
	LTE Band 2	20M	QPSK	1	0		Left Cheek	0mm	Ant 6	ECI 5	18900	1880	16.00	16.90	1.230	-	-	-0.15	0.245	0.301
	LTE Band 2	20M	QPSK	1	0		Left Tilted	0mm	Ant 6	ECI 5	18900	1880	16.00	16.90	1.230	-	-	-0.12	0.284	0.349
	LTE Band 2	20M	QPSK	50	0		Right Cheek	0mm	Ant 6	ECI 5	18900	1880	15.98	16.90	1.236	-	-	0.15	0.540	0.667
	LTE Band 2	20M	QPSK	50	0		Right Tilted	0mm	Ant 6	ECI 5	18900	1880	15.98	16.90	1.236	-	-	-0.04	0.425	0.525
	LTE Band 2	20M	QPSK	50	0		Left Cheek	0mm	Ant 6	ECI 5	18900	1880	15.98	16.90	1.236	-	-	-0.08	0.234	0.289
	LTE Band 2	20M	QPSK	50	0		Left Tilted	0mm	Ant 6	ECI 5	18900	1880	15.98	16.90	1.236	-	-	-0.13	0.278	0.344
	LTE Band 2	20M	QPSK	1	0		Right Cheek	0mm	Ant 7	ECI 5	18900	1880	14.06	15.40	1.361	-	-	-0.03	0.115	0.157
	LTE Band 2	20M	QPSK	1	0		Right Tilted	0mm	Ant 7	ECI 5	18900	1880	14.06	15.40	1.361	-	-	0.05	0.072	0.098
	LTE Band 2	20M	QPSK	1	0		Left Cheek	0mm	Ant 7	ECI 5	18900	1880	14.06	15.40	1.361	-	-	-0.11	0.416	0.566
	LTE Band 2	20M	QPSK	1	0		Left Tilted	0mm	Ant 7	ECI 5	18900	1880	14.06	15.40	1.361	-	-	-0.16	0.162	0.221
	LTE Band 2	20M	QPSK	50	0		Right Cheek	0mm	Ant 7	ECI 5	18900	1880	13.95	15.40	1.396	-	-	-0.05	0.111	0.155
	LTE Band 2	20M	QPSK	50	0		Right Tilted	0mm	Ant 7	ECI 5	18900	1880	13.95	15.40	1.396	-	-	0.03	0.070	0.098
	LTE Band 2	20M	QPSK	50	0		Left Cheek	0mm	Ant 7	ECI 5	18900	1880	13.95	15.40	1.396	-	-	0.14	0.400	0.559
	LTE Band 2	20M	QPSK	50	0		Left Tilted	0mm	Ant 7	ECI 5	18900	1880	13.95	15.40	1.396	-	-	0.08	0.155	0.216
18	LTE Band 2	20M	QPSK	1	0		Right Cheek	0mm	Ant 11	ECI 5	18900	1880	18.09	18.70	1.151	-	-	0.13	1.010	1.162
	LTE Band 2	20M	QPSK	1	0		Right Tilted	0mm	Ant 11	ECI 5	18900	1880	18.09	18.70	1.151	-	-	-0.16	0.396	0.456
	LTE Band 2	20M	QPSK	1	0		Left Cheek	0mm	Ant 11	ECI 5	18900	1880	18.09	18.70	1.151	-	-	0.06	0.318	0.366
	LTE Band 2	20M	QPSK	1	0		Left Tilted	0mm	Ant 11	ECI 5	18900	1880	18.09	18.70	1.151	-	-	0.04	0.121	0.139
	LTE Band 2	20M	QPSK	1	0		Right Cheek	0mm	Ant 11	ECI 5	18700	1860	17.92	18.70	1.197	-	-	0.08	0.960	1.149
	LTE Band 2	20M	QPSK	1	0		Right Cheek	0mm	Ant 11	ECI 5	19100	1900	17.95	18.70	1.189	-	-	-0.01	0.935	1.111
	LTE Band 2	20M	QPSK	1	0		Right Cheek	0mm	Ant 11	ECI 10	18900	1880	17.11	17.70	1.146	-	-	0.02	0.750	0.859



FCC SAR Test Report

Report No. : FA521816

	LTE Band 2	20M	QPSK	50	0		Right Cheek	0mm	Ant 11	ECI 5	18900	1880	18.05	18.70	1.161	-	-	0.03	0.972	1.129
	LTE Band 2	20M	QPSK	50	0		Right Tilted	0mm	Ant 11	ECI 5	18900	1880	18.05	18.70	1.161	-	-	-0.06	0.384	0.446
	LTE Band 2	20M	QPSK	50	0		Left Cheek	0mm	Ant 11	ECI 5	18900	1880	18.05	18.70	1.161	-	-	0.03	0.296	0.344
	LTE Band 2	20M	QPSK	50	0		Left Tilted	0mm	Ant 11	ECI 5	18900	1880	18.05	18.70	1.161	-	-	-0.03	0.122	0.142
	LTE Band 2	20M	QPSK	50	0		Right Cheek	0mm	Ant 11	ECI 5	18700	1860	17.89	18.70	1.205	-	-	0.01	0.935	1.127
	LTE Band 2	20M	QPSK	50	0		Right Cheek	0mm	Ant 11	ECI 5	19100	1900	17.92	18.70	1.197	-	-	0.05	0.922	1.103
	LTE Band 2	20M	QPSK	100	0		Right Cheek	0mm	Ant 11	ECI 5	18900	1880	17.85	18.70	1.216	-	-	0.03	0.950	1.155
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	376000	1880	22.96	24.20	1.330	-	-	-0.1	0.180	0.239
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	376000	1880	22.96	24.20	1.330	-	-	-0.1	0.104	0.138
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	376000	1880	22.96	24.20	1.330	-	-	0.03	0.169	0.225
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	376000	1880	22.96	24.20	1.330	-	-	0.15	0.080	0.106
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	376000	1880	22.89	24.20	1.352	-	-	-0.09	0.175	0.237
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	376000	1880	22.89	24.20	1.352	-	-	0.08	0.103	0.139
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	376000	1880	22.89	24.20	1.352	-	-	-0.06	0.160	0.216
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	376000	1880	22.89	24.20	1.352	-	-	-0.03	0.075	0.101
19	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	376000	1880	16.80	17.80	1.259	-	-	-0.15	0.681	0.857
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	376000	1880	16.80	17.80	1.259	-	-	0.05	0.453	0.570
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	376000	1880	16.80	17.80	1.259	-	-	0.08	0.237	0.298
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	376000	1880	16.80	17.80	1.259	-	-	0.08	0.302	0.380
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	372000	1860	16.72	17.80	1.282	-	-	0.12	0.622	0.798
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	380000	1900	16.76	17.80	1.271	-	-	0.03	0.647	0.822
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	376000	1880	16.78	17.80	1.265	-	-	-0.14	0.647	0.818
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	376000	1880	16.78	17.80	1.265	-	-	-0.12	0.430	0.544
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	376000	1880	16.78	17.80	1.265	-	-	-0.11	0.229	0.290
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	376000	1880	16.78	17.80	1.265	-	-	0.12	0.280	0.354
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	372000	1860	16.69	17.80	1.291	-	-	0.08	0.618	0.798
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	380000	1900	16.75	17.80	1.274	-	-	0.02	0.620	0.790
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	376000	1880	16.74	17.80	1.276	-	-	0.05	0.652	0.832
2600 MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100	2535	24.48	25.00	1.127	-	-	0.05	0.247	0.278
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100+21298	2535+2554.8	24.40	25.00	1.148	-	-	0.07	0.189	0.217
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	21100	2535	24.48	25.00	1.127	-	-	0.16	0.141	0.159
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	21100	2535	24.48	25.00	1.127	-	-	0.09	0.242	0.273
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	21100	2535	24.48	25.00	1.127	-	-	0.03	0.071	0.080
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100	2535	24.12	24.50	1.091	-	-	0.01	0.221	0.241
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	21100	2535	24.12	24.50	1.091	-	-	-0.1	0.117	0.128
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	21100	2535	24.12	24.50	1.091	-	-	-0.15	0.219	0.239
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	21100	2535	24.12	24.50	1.091	-	-	-0.08	0.069	0.075
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	21100	2535	15.65	16.50	1.216	-	-	0.11	0.655	0.797
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	21100+21298	2535+2554.8	15.60	16.50	1.230	-	-	0.06	0.594	0.731
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 5	21100	2535	15.65	16.50	1.216	-	-	0.13	0.562	0.683
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 5	21100	2535	15.65	16.50	1.216	-	-	0.04	0.287	0.349
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 5	21100	2535	15.65	16.50	1.216	-	-	0	0.325	0.395
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	21100	2535	15.62	16.50	1.225	-	-	0.13	0.630	0.772
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 5	21100	2535	15.62	16.50	1.225	-	-	0.04	0.574	0.703
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 5	21100	2535	15.62	16.50	1.225	-	-	-0.1	0.283	0.347
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 5	21100	2535	15.62	16.50	1.225	-	-	0.03	0.321	0.393
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 5	21350	2560	16.47	17.50	1.268	-	-	-0.02	0.185	0.235
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 5	21350	2560	16.47	17.50	1.268	-	-	0.06	0.108	0.137
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	21350	2560	16.47	17.50	1.268	-	-	-0.16	0.852	1.080
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 5	21350	2560	16.47	17.50	1.268	-	-	-0.06	0.326	0.413
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	20850	2510	15.88	17.50	1.452	-	-	0.03	0.718	1.043
20	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	21100	2535	16.30	17.50	1.318	-	-	0.11	0.870	1.147
	LTE Band 7C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	21100+21298	2535+2554.8	16.25	17.50	1.334	-	-	0.09	0.794	1.059
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 10	21100	2535	14.40	15.50	1.288	-	-	0.08	0.568	0.732



FCC SAR Test Report

Report No. : FA521816

	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 7	ECI 5	21350	2560	16.45	17.50	1.274	-	-	0.05	0.177	0.225
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 7	ECI 5	21350	2560	16.45	17.50	1.274	-	-	-0.13	0.100	0.127
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	21350	2560	16.45	17.50	1.274	-	-	0.04	0.817	1.040
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 7	ECI 5	21350	2560	16.45	17.50	1.274	-	-	-0.08	0.313	0.399
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	20850	2510	15.87	17.50	1.455	-	-	0.15	0.712	1.036
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	21100	2535	16.25	17.50	1.334	-	-	-0.11	0.850	1.133
	LTE Band 7	20M	QPSK	100	0	-	Left Cheek	Omm	Ant 7	ECI 5	21350	2560	16.41	17.50	1.285	-	-	0.12	0.849	1.091
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 5	21100	2535	16.88	17.40	1.127	-	-	0.03	0.764	0.861
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 11	ECI 5	21100	2535	16.88	17.40	1.127	-	-	-0.16	0.287	0.324
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 11	ECI 5	21100	2535	16.88	17.40	1.127	-	-	0.13	0.158	0.178
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 11	ECI 5	21100	2535	16.88	17.40	1.127	-	-	0.1	0.084	0.095
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 5	20850	2510	16.80	17.40	1.148	-	-	0.14	0.708	0.813
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 5	21350	2560	16.82	17.40	1.143	-	-	-0.09	0.853	0.975
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 5	21350+21152	2560+2540.2	16.74	17.40	1.164	-	-	0.08	0.784	0.913
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 11	ECI 5	21100	2535	16.85	17.40	1.135	-	-	-0.05	0.732	0.831
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 11	ECI 5	21100	2535	16.85	17.40	1.135	-	-	0.1	0.267	0.303
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 11	ECI 5	21100	2535	16.85	17.40	1.135	-	-	0.03	0.151	0.171
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 11	ECI 5	21100	2535	16.85	17.40	1.135	-	-	-0.16	0.078	0.089
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 11	ECI 5	20850	2510	16.78	17.40	1.153	-	-	0.16	0.694	0.800
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 11	ECI 5	21350	2560	16.79	17.40	1.151	-	-	0.04	0.789	0.908
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	Omm	Ant 11	ECI 5	21100	2535	16.82	17.40	1.143	-	-	-0.1	0.767	0.877
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 5	ECI 5	38000	2595	24.49	25.00	1.125	62.9	1.006	-0.01	0.141	0.160
	LTE Band 38C	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 5	ECI 5	37901+38099	2585.1+2604.9	24.42	25.00	1.143	62.9	1.006	0.09	0.138	0.159
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 5	ECI 5	38000	2595	24.49	25.00	1.125	62.9	1.006	-0.07	0.077	0.087
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 5	ECI 5	38000	2595	24.49	25.00	1.125	62.9	1.006	0.04	0.131	0.148
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 5	ECI 5	38000	2595	24.49	25.00	1.125	62.9	1.006	-0.16	0.045	0.051
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 5	ECI 5	38000	2595	24.05	24.50	1.109	62.9	1.006	0.08	0.132	0.147
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 5	ECI 5	38000	2595	24.05	24.50	1.109	62.9	1.006	-0.16	0.071	0.079
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 5	ECI 5	38000	2595	24.05	24.50	1.109	62.9	1.006	0	0.122	0.136
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 5	ECI 5	38000	2595	24.05	24.50	1.109	62.9	1.006	-0.07	0.045	0.050
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	38000	2595	17.95	18.40	1.109	62.9	1.006	-0.12	0.658	0.734
	LTE Band 38C	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	37901+38099	2585.1+2604.9	17.83	18.40	1.140	62.9	1.006	0.05	0.597	0.685
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 6	ECI 5	38000	2595	17.95	18.40	1.109	62.9	1.006	0.13	0.509	0.568
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 6	ECI 5	38000	2595	17.95	18.40	1.109	62.9	1.006	0.14	0.325	0.363
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 6	ECI 5	38000	2595	17.95	18.40	1.109	62.9	1.006	0.09	0.437	0.488
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 6	ECI 5	38000	2595	17.92	18.40	1.117	62.9	1.006	-0.09	0.615	0.691
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 6	ECI 5	38000	2595	17.92	18.40	1.117	62.9	1.006	-0.09	0.502	0.564
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 6	ECI 5	38000	2595	17.92	18.40	1.117	62.9	1.006	-0.13	0.315	0.354
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 6	ECI 5	38000	2595	17.92	18.40	1.117	62.9	1.006	0.13	0.431	0.484
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 7	ECI 5	38000	2595	17.20	18.00	1.202	62.9	1.006	0.06	0.126	0.152
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 7	ECI 5	38000	2595	17.20	18.00	1.202	62.9	1.006	0.09	0.092	0.111
21	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	38000	2595	17.20	18.00	1.202	62.9	1.006	-0.16	0.619	0.749
	LTE Band 38C	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	37901+38099	2585.1+2604.9	17.13	18.00	1.222	62.9	1.006	0.07	0.598	0.735
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 7	ECI 5	38000	2595	17.20	18.00	1.202	62.9	1.006	-0.14	0.257	0.311
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 10	38000	2595	16.22	17.00	1.197	62.9	1.006	0.06	0.500	0.602
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 7	ECI 5	38000	2595	17.12	18.00	1.225	62.9	1.006	0.15	0.125	0.154
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 7	ECI 5	38000	2595	17.12	18.00	1.225	62.9	1.006	-0.13	0.096	0.118
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	38000	2595	17.12	18.00	1.225	62.9	1.006	0.05	0.600	0.739
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 7	ECI 5	38000	2595	17.12	18.00	1.225	62.9	1.006	-0.11	0.248	0.306
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 5	38000	2595	15.50	15.90	1.096	62.9	1.006	0.09	0.369	0.407
	LTE Band 38C	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 5	37901+38099	2585.1+2604.9	15.38	15.90	1.127	62.9	1.006	0.09	0.353	0.400
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 11	ECI 5	38000	2595	15.50	15.90	1.096	62.9	1.006	-0.15	0.132	0.146
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 11	ECI 5	38000	2595	15.50	15.90	1.096	62.9	1.006	-0.12	0.077	0.085
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 11	ECI 5	38000	2595	15.50	15.90	1.096	62.9	1.006	-0.14	0.040	0.044
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 11	ECI 5	38000	2595	15.47	15.90	1.104	62.9	1.006	-0.05	0.361	0.401



FCC SAR Test Report

Report No. : FA521816

	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 11	ECI 5	38000	2595	15.47	15.90	1.104	62.9	1.006	-0.09	0.124	0.138
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 11	ECI 5	38000	2595	15.47	15.90	1.104	62.9	1.006	-0.05	0.070	0.078
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 11	ECI 5	38000	2595	15.47	15.90	1.104	62.9	1.006	0.03	0.039	0.043
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 5	ECI 5	40620	2593	22.32	22.80	1.117	62.9	1.006	-0.02	0.126	0.142
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 5	ECI 5	40620	2593	22.32	22.80	1.117	62.9	1.006	0.04	0.068	0.076
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 5	ECI 5	40620	2593	22.32	22.80	1.117	62.9	1.006	0.02	0.084	0.094
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 5	ECI 5	40620	2593	22.32	22.80	1.117	62.9	1.006	0.06	0.021	0.024
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 5	ECI 5	40620	2593	25.11	25.80	1.172	42.9	1.009	0.05	0.149	0.176
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 5	ECI 5	40620	2593	21.85	22.30	1.109	62.9	1.006	0.05	0.108	0.121
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 5	ECI 5	40620	2593	21.85	22.30	1.109	62.9	1.006	-0.05	0.066	0.074
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 5	ECI 5	40620	2593	21.85	22.30	1.109	62.9	1.006	-0.04	0.077	0.086
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 5	ECI 5	40620	2593	21.85	22.30	1.109	62.9	1.006	0.01	0.019	0.021
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	40620	2593	18.02	18.80	1.197	62.9	1.006	0.04	0.600	0.722
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 6	ECI 5	40620	2593	18.02	18.80	1.197	62.9	1.006	0.15	0.521	0.627
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 6	ECI 5	40620	2593	18.02	18.80	1.197	62.9	1.006	-0.02	0.365	0.439
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 6	ECI 5	40620	2593	18.02	18.80	1.197	62.9	1.006	-0.05	0.479	0.577
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	39750	2506	17.90	18.80	1.230	62.9	1.006	-0.13	0.642	0.795
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	40185	2549.5	17.96	18.80	1.213	62.9	1.006	0.11	0.699	0.853
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	41055	2636.5	18.00	18.80	1.202	62.9	1.006	-0.16	0.584	0.706
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	41490	2680	17.93	18.80	1.222	62.9	1.006	-0.14	0.557	0.685
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 6	ECI 5	39750	2506	17.90	18.80	1.230	62.9	1.006	0.14	0.561	0.694
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 6	ECI 5	40185	2549.5	17.96	18.80	1.213	62.9	1.006	0.05	0.622	0.759
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 6	ECI 5	41055	2636.5	18.00	18.80	1.202	62.9	1.006	0.12	0.512	0.619
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 6	ECI 5	41490	2680	17.93	18.80	1.222	62.9	1.006	-0.09	0.493	0.606
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 6	ECI 5	40185	2549.5	18.96	19.80	1.213	42.9	1.009	0.15	0.642	0.786
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 6	ECI 5	40620	2593	18.00	18.80	1.202	62.9	1.006	0.13	0.584	0.706
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 6	ECI 5	40620	2593	18.00	18.80	1.202	62.9	1.006	0.04	0.491	0.594
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 6	ECI 5	40620	2593	18.00	18.80	1.202	62.9	1.006	-0.02	0.360	0.435
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 6	ECI 5	40620	2593	18.00	18.80	1.202	62.9	1.006	0.12	0.469	0.567
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 6	ECI 5	39750	2506	17.88	18.80	1.236	62.9	1.006	-0.02	0.632	0.786
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 6	ECI 5	40185	2549.5	17.94	18.80	1.219	62.9	1.006	-0.09	0.679	0.833
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 6	ECI 5	41055	2636.5	17.96	18.80	1.213	62.9	1.006	0.06	0.566	0.691
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 6	ECI 5	41490	2680	17.91	18.80	1.227	62.9	1.006	-0.15	0.545	0.673
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	Omm	Ant 6	ECI 5	40620	2593	17.98	18.80	1.208	62.9	1.006	0.08	0.600	0.729
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	Omm	Ant 6	ECI 5	40620	2593	17.98	18.80	1.208	62.9	1.006	0.05	0.489	0.594
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 7	ECI 5	40620	2593	17.45	18.30	1.216	62.9	1.006	0.07	0.153	0.187
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	Omm	Ant 7	ECI 5	40620	2593	17.45	18.30	1.216	62.9	1.006	-0.12	0.109	0.133
22	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	40620	2593	17.45	18.30	1.216	62.9	1.006	0.01	0.699	0.855
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	Omm	Ant 7	ECI 5	40620	2593	17.45	18.30	1.216	62.9	1.006	-0.15	0.284	0.347
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	39750	2506	17.00	18.30	1.349	62.9	1.006	0.16	0.551	0.748
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	40185	2549.5	17.42	18.30	1.225	62.9	1.006	-0.06	0.620	0.764
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	41055	2636.5	17.40	18.30	1.230	62.9	1.006	-0.11	0.644	0.797
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	41490	2680	17.39	18.30	1.233	62.9	1.006	0.08	0.586	0.727
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 5	40620	2593	19.02	19.80	1.197	42.9	1.009	-0.03	0.646	0.780
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	Omm	Ant 7	ECI 10	40620	2593	16.96	17.80	1.213	62.9	1.006	0.05	0.618	0.754
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	Omm	Ant 7	ECI 5	40620	2593	17.44	18.30	1.219	62.9	1.006	-0.1	0.147	0.180
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	Omm	Ant 7	ECI 5	40620	2593	17.44	18.30	1.219	62.9	1.006	-0.01	0.103	0.126
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	40620	2593	17.44	18.30	1.219	62.9	1.006	-0.16	0.695	0.852
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	Omm	Ant 7	ECI 5	40620	2593	17.44	18.30	1.219	62.9	1.006	0.11	0.281	0.345
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	39750	2506	16.98	18.30	1.355	62.9	1.006	0.11	0.535	0.729
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	40185	2549.5	17.40	18.30	1.230	62.9	1.006	0.12	0.616	0.762
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	41055	2636.5	17.34	18.30	1.247	62.9	1.006	0.14	0.634	0.796
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	Omm	Ant 7	ECI 5	41490	2680	17.35	18.30	1.245	62.9	1.006	0.05	0.583	0.730
	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	Omm	Ant 7	ECI 5	40620	2593	17.42	18.30	1.225	62.9	1.006	-0.1	0.670	0.825
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	Omm	Ant 11	ECI 5	40620	2593	15.72	16.20	1.117	62.9	1.006	-0.01	0.163	0.183



FCC SAR Test Report

Report No. : FA521816

	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	40620	2593	15.72	16.20	1.117	62.9	1.006	-0.02	0.058	0.065
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	40620	2593	15.72	16.20	1.117	62.9	1.006	-0.16	0.039	0.044
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	40620	2593	15.72	16.20	1.117	62.9	1.006	0.05	0.028	0.031
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	40620	2593	16.95	17.70	1.189	42.9	1.009	-0.14	0.138	0.165
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 10	40620	2593	15.22	15.70	1.117	62.9	1.006	0.06	0.148	0.166
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	40620	2593	15.70	16.20	1.122	62.9	1.006	-0.1	0.158	0.178
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	40620	2593	15.70	16.20	1.122	62.9	1.006	0.15	0.054	0.061
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	40620	2593	15.70	16.20	1.122	62.9	1.006	-0.05	0.035	0.040
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	40620	2593	15.70	16.20	1.122	62.9	1.006	0.04	0.025	0.028
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	507000	2535	24.22	25.40	1.312	-	-	-0.08	0.260	0.341
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	507000	2535	24.22	25.40	1.312	-	-	0.12	0.119	0.156
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	24.22	25.40	1.312	-	-	0.07	0.246	0.323
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	507000	2535	24.22	25.40	1.312	-	-	0.1	0.087	0.114
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	507000	2535	24.10	25.40	1.349	-	-	0.14	0.254	0.343
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	507000	2535	24.10	25.40	1.349	-	-	0.15	0.114	0.154
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	24.10	25.40	1.349	-	-	-0.02	0.231	0.312
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	507000	2535	24.10	25.40	1.349	-	-	0.15	0.083	0.112
23	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	507000	2535	15.30	16.40	1.288	-	-	0.15	0.736	0.948
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	507000	2535	15.30	16.40	1.288	-	-	-0.16	0.655	0.844
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	507000	2535	15.30	16.40	1.288	-	-	0.12	0.397	0.511
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	507000	2535	15.30	16.40	1.288	-	-	-0.16	0.433	0.558
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 10	507000	2535	14.83	15.90	1.279	-	-	0.17	0.632	0.809
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	ECI 10	507000	2535	14.83	15.90	1.279	-	-	0.06	0.602	0.770
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	ECI 10	507000	2535	14.83	15.90	1.279	-	-	-0.02	0.367	0.470
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	ECI 10	507000	2535	14.83	15.90	1.279	-	-	0.1	0.394	0.504
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	507000	2535	15.28	16.40	1.294	-	-	0.09	0.718	0.929
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	507000	2535	15.28	16.40	1.294	-	-	0.06	0.640	0.828
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	507000	2535	15.28	16.40	1.294	-	-	-0.13	0.369	0.478
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	507000	2535	15.28	16.40	1.294	-	-	-0.14	0.412	0.533
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	507000	2535	15.19	16.40	1.321	-	-	0.01	0.700	0.925
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	507000	2535	15.19	16.40	1.321	-	-	0.07	0.627	0.828
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	507000	2535	15.22	16.40	1.312	-	-	-0.13	0.148	0.194
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	507000	2535	15.22	16.40	1.312	-	-	-0.15	0.073	0.096
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	507000	2535	15.22	16.40	1.312	-	-	-0.16	0.593	0.778
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	507000	2535	15.22	16.40	1.312	-	-	-0.09	0.244	0.320
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	ECI 10	507000	2535	14.66	15.90	1.330	-	-	0.07	0.450	0.599
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	507000	2535	15.20	16.40	1.318	-	-	-0.12	0.127	0.167
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	507000	2535	15.20	16.40	1.318	-	-	-0.05	0.060	0.079
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	507000	2535	15.20	16.40	1.318	-	-	0.02	0.547	0.721
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	507000	2535	15.20	16.40	1.318	-	-	-0.06	0.192	0.253
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	507000	2535	15.99	16.80	1.205	-	-	-0.13	0.732	0.882
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	507000	2535	15.99	16.80	1.205	-	-	-0.07	0.245	0.295
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	507000	2535	15.99	16.80	1.205	-	-	-0.12	0.131	0.158
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	507000	2535	15.99	16.80	1.205	-	-	-0.05	0.076	0.092
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	507000	2535	15.98	16.80	1.208	-	-	0.15	0.688	0.831
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	507000	2535	15.98	16.80	1.208	-	-	-0.08	0.220	0.266
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	507000	2535	15.98	16.80	1.208	-	-	-0.01	0.124	0.150
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	507000	2535	15.98	16.80	1.208	-	-	0.1	0.071	0.086
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	507000	2535	15.95	16.80	1.216	-	-	0.1	0.662	0.805
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	519000	2595	24.20	25.40	1.318	-	-	0.12	0.322	0.424
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	519000	2595	24.20	25.40	1.318	-	-	-0.14	0.166	0.219
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	519000	2595	24.20	25.40	1.318	-	-	-0.04	0.282	0.372
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	519000	2595	24.20	25.40	1.318	-	-	0.15	0.087	0.115
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	519000	2595	24.06	25.40	1.361	-	-	0.05	0.311	0.423
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	519000	2595	24.06	25.40	1.361	-	-	-0.09	0.154	0.210
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	519000	2595	24.06	25.40	1.361	-	-	0.03	0.277	0.377



FCC SAR Test Report

Report No. : FA521816

	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	519000	2595	24.06	25.40	1.361	-	-	-0.06	0.077	0.105
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	15.82	16.80	1.253	-	-	0.06	0.792	0.992
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	519000	2595	15.82	16.80	1.253	-	-	-0.1	0.718	0.900
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	519000	2595	15.82	16.80	1.253	-	-	-0.14	0.415	0.520
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	519000	2595	15.82	16.80	1.253	-	-	0.08	0.530	0.664
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 10	519000	2595	14.81	15.80	1.256	-	-	-0.06	0.641	0.805
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 10	519000	2595	14.81	15.80	1.256	-	-	0.03	0.573	0.720
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 10	519000	2595	14.81	15.80	1.256	-	-	0.08	0.333	0.418
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 10	519000	2595	14.81	15.80	1.256	-	-	0.12	0.418	0.525
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	15.80	16.80	1.259	-	-	-0.06	0.779	0.981
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	519000	2595	15.80	16.80	1.259	-	-	0.05	0.654	0.823
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	519000	2595	15.80	16.80	1.259	-	-	-0.15	0.409	0.515
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	519000	2595	15.80	16.80	1.259	-	-	-0.15	0.522	0.657
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	15.74	16.80	1.276	-	-	0.12	0.757	0.966
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	519000	2595	15.74	16.80	1.276	-	-	0.05	0.635	0.811
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	519000	2595	15.30	16.60	1.349	-	-	-0.04	0.169	0.228
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	519000	2595	15.30	16.60	1.349	-	-	0.13	0.096	0.130
24	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	519000	2595	15.30	16.60	1.349	-	-	-0.12	0.804	1.085
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	519000	2595	15.30	16.60	1.349	-	-	-0.05	0.277	0.374
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 10	519000	2595	13.77	15.10	1.358	-	-	0.01	0.572	0.777
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	519000	2595	15.28	16.60	1.355	-	-	-0.14	0.161	0.218
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	519000	2595	15.28	16.60	1.355	-	-	0.1	0.092	0.125
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	519000	2595	15.28	16.60	1.355	-	-	-0.12	0.750	1.016
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	519000	2595	15.28	16.60	1.355	-	-	0.14	0.266	0.360
	FR1 n38	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	519000	2595	15.27	16.60	1.358	-	-	-0.13	0.712	0.967
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	519000	2595	16.95	17.80	1.216	-	-	-0.07	0.408	0.496
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	519000	2595	16.95	17.80	1.216	-	-	-0.15	0.145	0.176
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	519000	2595	16.95	17.80	1.216	-	-	-0.1	0.088	0.107
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	519000	2595	16.95	17.80	1.216	-	-	-0.01	0.051	0.062
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	519000	2595	16.90	17.80	1.230	-	-	-0.05	0.392	0.482
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	519000	2595	16.90	17.80	1.230	-	-	-0.06	0.136	0.167
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	519000	2595	16.90	17.80	1.230	-	-	-0.08	0.080	0.098
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	519000	2595	16.90	17.80	1.230	-	-	0.1	0.046	0.057
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	518598	2592.99	25.22	26.20	1.253	-	-	0.01	0.375	0.470
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	518598	2592.99	25.22	26.20	1.253	-	-	-0.13	0.163	0.204
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	518598	2592.99	25.22	26.20	1.253	-	-	-0.02	0.316	0.396
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	518598	2592.99	25.22	26.20	1.253	-	-	0.02	0.101	0.127
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	518598	2592.99	25.10	26.20	1.288	-	-	0.14	0.357	0.460
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	518598	2592.99	25.10	26.20	1.288	-	-	0.11	0.151	0.195
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	518598	2592.99	25.10	26.20	1.288	-	-	0.09	0.278	0.358
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	518598	2592.99	25.10	26.20	1.288	-	-	-0.14	0.093	0.120
25	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	518598	2592.99	15.68	16.70	1.265	-	-	-0.15	0.825	1.043
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	518598	2592.99	15.68	16.70	1.265	-	-	-0.05	0.701	0.887
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	518598	2592.99	15.68	16.70	1.265	-	-	-0.03	0.433	0.548
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	518598	2592.99	15.68	16.70	1.265	-	-	-0.15	0.528	0.668
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 10	518598	2592.99	14.55	15.70	1.303	-	-	0.05	0.668	0.871
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 10	518598	2592.99	14.55	15.70	1.303	-	-	0.08	0.523	0.682
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 10	518598	2592.99	14.55	15.70	1.303	-	-	0.12	0.339	0.442
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 10	518598	2592.99	14.55	15.70	1.303	-	-	0.16	0.422	0.550
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	518598	2592.99	15.65	16.70	1.274	-	-	-0.08	0.750	0.955
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	518598	2592.99	15.65	16.70	1.274	-	-	0.12	0.675	0.860
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	518598	2592.99	15.65	16.70	1.274	-	-	0.1	0.425	0.541
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	518598	2592.99	15.65	16.70	1.274	-	-	0.09	0.506	0.644
	FR1 n41 PC2	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	518598	2592.99	15.61	16.70	1.285	-	-	-0.08	0.739	0.950
	FR1 n41 PC2	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	518598	2592.99	15.61	16.70	1.285	-	-	0.06	0.656	0.843
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	518598	2592.99	15.20	16.20	1.259	-	-	0.03	0.153	0.193



FCC SAR Test Report

Report No. : FA521816

	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	518598	2592.99	15.20	16.20	1.259	-	-	-0.12	0.091	0.115
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	518598	2592.99	15.20	16.20	1.259	-	-	-0.05	0.705	0.888
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	518598	2592.99	15.20	16.20	1.259	-	-	0.01	0.271	0.341
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 10	518598	2592.99	14.20	15.20	1.259	-	-	0.07	0.548	0.690
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	518598	2592.99	15.18	16.20	1.265	-	-	-0.06	0.147	0.186
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	518598	2592.99	15.18	16.20	1.265	-	-	0.11	0.078	0.099
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	518598	2592.99	15.18	16.20	1.265	-	-	-0.12	0.642	0.812
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	518598	2592.99	15.18	16.20	1.265	-	-	-0.09	0.269	0.340
	FR1 n41 PC2	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	518598	2592.99	15.16	16.20	1.271	-	-	0.02	0.620	0.788
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	518598	2592.99	13.30	14.10	1.202	-	-	-0.12	0.375	0.451
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	518598	2592.99	13.30	14.10	1.202	-	-	-0.02	0.147	0.177
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	518598	2592.99	13.30	14.10	1.202	-	-	0.06	0.084	0.101
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	518598	2592.99	13.30	14.10	1.202	-	-	-0.12	0.046	0.055
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 10	518598	2592.99	12.88	13.60	1.180	-	-	0.07	0.342	0.404
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	518598	2592.99	13.29	14.10	1.205	-	-	0.05	0.363	0.437
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	518598	2592.99	13.29	14.10	1.205	-	-	-0.13	0.129	0.155
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	518598	2592.99	13.29	14.10	1.205	-	-	-0.06	0.069	0.083
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	518598	2592.99	13.29	14.10	1.205	-	-	-0.03	0.040	0.048
3300-4100 MHz																				
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.38	16.20	1.208	-	-	0.12	0.391	0.472
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.38	16.20	1.208	-	-	0.03	0.450	0.544
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.38	16.20	1.208	-	-	-0.12	0.882	1.065
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.38	16.20	1.208	-	-	0.13	0.675	0.815
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 10	633332	3499.98	13.95	14.70	1.189	-	-	0.09	0.638	0.758
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.35	16.20	1.216	-	-	0.02	0.370	0.450
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.35	16.20	1.216	-	-	0.09	0.413	0.502
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.35	16.20	1.216	-	-	-0.12	0.831	1.011
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.35	16.20	1.216	-	-	-0.11	0.641	0.780
	FR1 n77 Part 27Q	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.27	16.20	1.239	-	-	0.06	0.847	1.049
	FR1 n77 Part 27Q	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.27	16.20	1.239	-	-	-0.02	0.650	0.805
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	656000	3840	15.22	16.20	1.253	-	-	-0.09	0.241	0.302
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	656000	3840	15.22	16.20	1.253	-	-	-0.14	0.250	0.313
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	656000	3840	15.22	16.20	1.253	-	-	0.05	0.489	0.613
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	656000	3840	15.22	16.20	1.253	-	-	-0.04	0.432	0.541
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	656000	3840	15.18	16.20	1.265	-	-	-0.12	0.231	0.292
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	656000	3840	15.18	16.20	1.265	-	-	0.12	0.222	0.281
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	656000	3840	15.18	16.20	1.265	-	-	0.01	0.479	0.606
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	656000	3840	15.18	16.20	1.265	-	-	-0.09	0.426	0.539
	FR1 n77 Part 27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	656000	3840	15.12	16.20	1.282	-	-	-0.01	0.453	0.581
	FR1 n77 Part 27O	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	656000	3840	15.12	16.20	1.282	-	-	0.08	0.416	0.533
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3499.98	15.15	16.70	1.429	-	-	-0.05	0.442	0.632
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3499.98	15.15	16.70	1.429	-	-	0.12	0.033	0.047
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3499.98	15.15	16.70	1.429	-	-	-0.03	0.366	0.523
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3499.98	15.15	16.70	1.429	-	-	-0.08	0.028	0.040
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3499.98	15.13	16.70	1.435	-	-	0	0.466	0.669
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3499.98	15.13	16.70	1.435	-	-	-0.14	0.034	0.049
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3499.98	15.13	16.70	1.435	-	-	0.1	0.370	0.531
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3499.98	15.13	16.70	1.435	-	-	-0.08	0.030	0.043
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	656000	3840	15.10	16.70	1.445	-	-	-0.12	0.218	0.315
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	656000	3840	15.10	16.70	1.445	-	-	-0.16	0.064	0.093
26	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	656000	3840	15.10	16.70	1.445	-	-	0.01	0.750	1.084
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	656000	3840	15.10	16.70	1.445	-	-	-0.08	0.122	0.176
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 10	656000	3840	13.60	15.20	1.445	-	-	0.05	0.537	0.776
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	656000	3840	15.09	16.70	1.449	-	-	0.07	0.197	0.285
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	656000	3840	15.09	16.70	1.449	-	-	-0.08	0.058	0.084
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	656000	3840	15.09	16.70	1.449	-	-	0.16	0.718	1.040



FCC SAR Test Report

Report No. : FA521816

	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	656000	3840	15.09	16.70	1.449	-	-	-0.02	0.118	0.171
	FR1 n77 Part 27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	656000	3840	14.99	16.70	1.483	-	-	0.05	0.705	1.045
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	17.75	19.20	1.396	-	-	-0.05	0.442	0.617
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	17.75	19.20	1.396	-	-	-0.1	0.425	0.593
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	17.75	19.20	1.396	-	-	-0.09	0.130	0.182
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	17.75	19.20	1.396	-	-	0.16	0.176	0.246
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	17.69	19.20	1.416	-	-	-0.01	0.430	0.609
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	17.69	19.20	1.416	-	-	0.15	0.421	0.596
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	17.69	19.20	1.416	-	-	0.06	0.128	0.181
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	17.69	19.20	1.416	-	-	-0.01	0.177	0.251
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	17.92	19.20	1.343	-	-	-0.15	0.707	0.949
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	656000	3840	17.92	19.20	1.343	-	-	0.01	0.677	0.909
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	656000	3840	17.92	19.20	1.343	-	-	0.1	0.225	0.302
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	656000	3840	17.92	19.20	1.343	-	-	-0.07	0.265	0.356
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	17.90	19.20	1.349	-	-	-0.11	0.745	1.005
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	656000	3840	17.90	19.20	1.349	-	-	0.12	0.687	0.927
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	656000	3840	17.90	19.20	1.349	-	-	0.05	0.241	0.325
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	656000	3840	17.90	19.20	1.349	-	-	-0.1	0.273	0.368
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 10	656000	3840	16.90	18.20	1.349	-	-	0.15	0.599	0.808
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 10	656000	3840	16.90	18.20	1.349	-	-	0.09	0.537	0.724
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 10	656000	3840	16.90	18.20	1.349	-	-	-0.07	0.187	0.252
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 10	656000	3840	16.90	18.20	1.349	-	-	0.06	0.210	0.283
	FR1 n77 Part 27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	17.84	19.20	1.368	-	-	0.11	0.706	0.966
	FR1 n77 Part 27O	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	656000	3840	17.84	19.20	1.368	-	-	-0.12	0.658	0.900
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.69	15.20	1.416	-	-	0.03	0.293	0.415
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.69	15.20	1.416	-	-	0.16	0.115	0.163
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.69	15.20	1.416	-	-	0.1	0.206	0.292
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.69	15.20	1.416	-	-	0.03	0.048	0.068
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.65	15.20	1.429	-	-	-0.12	0.284	0.406
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.65	15.20	1.429	-	-	0.14	0.109	0.156
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.65	15.20	1.429	-	-	0.1	0.169	0.241
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.65	15.20	1.429	-	-	0.06	0.042	0.060
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	656000	3840	13.65	15.20	1.429	-	-	0.11	0.266	0.380
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	656000	3840	13.65	15.20	1.429	-	-	-0.06	0.131	0.187
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	656000	3840	13.65	15.20	1.429	-	-	0.06	0.142	0.203
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	656000	3840	13.65	15.20	1.429	-	-	0.15	0.047	0.067
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	656000	3840	13.63	15.20	1.435	-	-	0.11	0.289	0.415
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	656000	3840	13.63	15.20	1.435	-	-	0.05	0.121	0.174
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	656000	3840	13.63	15.20	1.435	-	-	-0.06	0.188	0.270
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	656000	3840	13.63	15.20	1.435	-	-	-0.05	0.041	0.059
	FR1 n77 Part 27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	656000	3840	13.60	15.20	1.445	-	-	0.05	0.271	0.392
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.15	16.20	1.274	-	-	-0.02	0.343	0.437
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.15	16.20	1.274	-	-	-0.02	0.407	0.518
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.15	16.20	1.274	-	-	-0.01	0.826	1.052
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.15	16.20	1.274	-	-	-0.09	0.611	0.778
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.13	16.20	1.279	-	-	0.01	0.381	0.487
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.13	16.20	1.279	-	-	-0.1	0.454	0.581
27	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.13	16.20	1.279	-	-	0.09	0.869	1.112
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.13	16.20	1.279	-	-	0.02	0.654	0.837
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 10	633332	3499.98	13.60	14.70	1.288	-	-	0.15	0.607	0.782
	FR1 n78 Part 27Q PC2	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.05	16.20	1.303	-	-	-0.08	0.833	1.086
	FR1 n78 Part 27Q PC2	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3499.98	15.05	16.20	1.303	-	-	-0.09	0.605	0.788
	FR1 n78 Part 27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	650000	3750	15.55	16.20	1.161	-	-	-0.15	0.325	0.377



FCC SAR Test Report

Report No. : FA521816

PC2																			
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	650000	3750	15.55	16.20	1.161	-	-	-0.01	0.339	0.394
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	650000	3750	15.55	16.20	1.161	-	-	0.13	0.671	0.779
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	650000	3750	15.55	16.20	1.161	-	-	0.06	0.551	0.640
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	650000	3750	15.49	16.20	1.178	-	-	-0.08	0.337	0.397
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	650000	3750	15.49	16.20	1.178	-	-	-0.12	0.381	0.449
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	650000	3750	15.49	16.20	1.178	-	-	-0.15	0.694	0.817
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	650000	3750	15.49	16.20	1.178	-	-	0.12	0.598	0.704
FR1 n78 Part 27O PC2	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	650000	3750	15.42	16.20	1.197	-	-	0.13	0.638	0.764
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3499.98	14.46	16.20	1.493	-	-	-0.13	0.512	0.764
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3499.98	14.46	16.20	1.493	-	-	0.09	0.031	0.046
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3499.98	14.46	16.20	1.493	-	-	0.1	0.405	0.605
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3499.98	14.46	16.20	1.493	-	-	0.05	0.021	0.031
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3499.98	14.43	16.20	1.503	-	-	0.01	0.545	0.819
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3499.98	14.43	16.20	1.503	-	-	-0.08	0.037	0.056
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3499.98	14.43	16.20	1.503	-	-	-0.03	0.450	0.676
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3499.98	14.43	16.20	1.503	-	-	0.01	0.025	0.038
FR1 n78 Part 27Q PC2	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3499.98	14.39	16.20	1.517	-	-	0.15	0.489	0.742
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	650000	3750	14.86	16.20	1.361	-	-	-0.07	0.312	0.425
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	650000	3750	14.86	16.20	1.361	-	-	-0.08	0.060	0.082
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	650000	3750	14.86	16.20	1.361	-	-	0.11	0.744	1.013
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	650000	3750	14.86	16.20	1.361	-	-	0.09	0.113	0.154
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 10	650000	3750	13.45	14.70	1.334	-	-	0.03	0.546	0.728
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	650000	3750	14.83	16.20	1.371	-	-	0.09	0.302	0.414
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	650000	3750	14.83	16.20	1.371	-	-	0.15	0.057	0.078
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	650000	3750	14.83	16.20	1.371	-	-	0.02	0.707	0.969
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	650000	3750	14.83	16.20	1.371	-	-	0.11	0.105	0.144
FR1 n78 Part 27O PC2	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	650000	3750	14.76	16.20	1.393	-	-	0.08	0.696	0.970
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	18.40	19.20	1.202	-	-	-0.05	0.445	0.535
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	18.40	19.20	1.202	-	-	0.03	0.411	0.494
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	18.40	19.20	1.202	-	-	-0.1	0.141	0.170
FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	18.40	19.20	1.202	-	-	0.05	0.187	0.225
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	18.38	19.20	1.208	-	-	-0.07	0.429	0.518
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3499.98	18.38	19.20	1.208	-	-	0	0.409	0.494
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3499.98	18.38	19.20	1.208	-	-	0.02	0.133	0.161
FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3499.98	18.38	19.20	1.208	-	-	-0.13	0.181	0.219
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	18.83	19.20	1.089	-	-	0	0.656	0.714
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	650000	3750	18.83	19.20	1.089	-	-	-0.01	0.570	0.621
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	650000	3750	18.83	19.20	1.089	-	-	-0.16	0.188	0.205
FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	650000	3750	18.83	19.20	1.089	-	-	0.08	0.239	0.260
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	18.81	19.20	1.094	-	-	0.02	0.732	0.801
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	650000	3750	18.81	19.20	1.094	-	-	-0.02	0.635	0.695
FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	650000	3750	18.81	19.20	1.094	-	-	-0.09	0.213	0.233
FR1 n78 Part 27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	650000	3750	18.81	19.20	1.094	-	-	0.09	0.269	0.294



FCC SAR Test Report

Report No. : FA521816

	PC2																			
	FR1 n78 Part 27O PC2	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	18.71	19.20	1.119	-	-	-0.02	0.628	0.703
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.15	14.70	1.429	-	-	-0.15	0.273	0.390
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.15	14.70	1.429	-	-	-0.03	0.104	0.149
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.15	14.70	1.429	-	-	-0.12	0.176	0.251
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.15	14.70	1.429	-	-	-0.06	0.049	0.070
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.14	14.70	1.432	-	-	-0.13	0.256	0.367
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.14	14.70	1.432	-	-	0.15	0.075	0.107
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3499.98	13.14	14.70	1.432	-	-	-0.08	0.191	0.274
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3499.98	13.14	14.70	1.432	-	-	-0.15	0.040	0.057
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	650000	3750	13.55	14.70	1.303	-	-	0.07	0.247	0.322
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	650000	3750	13.55	14.70	1.303	-	-	-0.08	0.122	0.159
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	650000	3750	13.55	14.70	1.303	-	-	-0.12	0.138	0.180
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	650000	3750	13.55	14.70	1.303	-	-	-0.15	0.047	0.061
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	650000	3750	13.52	14.70	1.312	-	-	0.15	0.241	0.316
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	650000	3750	13.52	14.70	1.312	-	-	0.12	0.114	0.150
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	650000	3750	13.52	14.70	1.312	-	-	-0.13	0.127	0.167
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	650000	3750	13.52	14.70	1.312	-	-	0.03	0.041	0.054

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq.(MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WIFI/BT																
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	Standalone	39	2441	17.90	18.00	1.023	76.97	1.299	0.12	0.657	0.873
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 12	Standalone	39	2441	17.90	18.00	1.023	76.97	1.299	0.14	0.775	1.030
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Standalone	39	2441	17.90	18.00	1.023	76.97	1.299	0.1	0.709	0.942
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	Standalone	39	2441	17.90	18.00	1.023	76.97	1.299	-0.13	0.794	1.055
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	Standalone	0	2402	17.70	18.00	1.072	76.97	1.299	0.03	0.648	0.902
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	Standalone	78	2480	15.80	17.00	1.318	76.97	1.299	0.06	0.433	0.741
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 12	Standalone	0	2402	17.70	18.00	1.072	76.97	1.299	-0.05	0.768	1.069
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 12	Standalone	78	2480	15.80	17.00	1.318	76.97	1.299	0.13	0.496	0.849
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Standalone	0	2402	17.70	18.00	1.072	76.97	1.299	0.14	0.716	0.997
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Standalone	78	2480	15.80	17.00	1.318	76.97	1.299	0.1	0.455	0.779
28	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	Standalone	0	2402	17.70	18.00	1.072	76.97	1.299	0.16	0.800	1.114
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	Standalone	78	2480	15.80	17.00	1.318	76.97	1.299	0.16	0.511	0.875
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	WWAN+BT&2.4G+BT&5/6G+BT	39	2441	15.40	15.50	1.023	76.97	1.299	0.1	0.426	0.566
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 12	WWAN+BT&2.4G+BT&5/6G+BT	39	2441	15.40	15.50	1.023	76.97	1.299	0.12	0.497	0.661
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	WWAN+BT&2.4G+BT&5/6G+BT	39	2441	15.40	15.50	1.023	76.97	1.299	-0.14	0.451	0.599
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	WWAN+BT&2.4G+BT&5/6G+BT	39	2441	15.40	15.50	1.023	76.97	1.299	0.01	0.506	0.673
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	10.80	11.00	1.047	76.97	1.299	0.07	0.125	0.170
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	10.80	11.00	1.047	76.97	1.299	-0.16	0.130	0.177
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	10.80	11.00	1.047	76.97	1.299	-0.14	0.138	0.188
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	10.80	11.00	1.047	76.97	1.299	0.03	0.143	0.195
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	16.79	17.50	1.177	100	1.000	-0.02	0.370	0.436
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	16.79	17.50	1.177	100	1.000	-0.14	0.495	0.583
29	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	16.79	17.50	1.177	100	1.000	0.11	0.691	0.814
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	16.79	17.50	1.177	100	1.000	0.13	0.431	0.507

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Page : 74 of 107

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FCC SAR Test Report

Report No. : FA521816

	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Standalone&2.4G+5G/6G	1	2412	16.75	17.50	1.188	100	1.000	0.16	0.656	0.780
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Standalone&2.4G+5G/6G	11	2462	16.71	17.50	1.201	100	1.000	-0.07	0.668	0.802
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT	6	2437	14.85	15.50	1.163	100	1.000	-0.12	0.235	0.273
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT	6	2437	14.85	15.50	1.163	100	1.000	-0.11	0.326	0.379
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT	6	2437	14.85	15.50	1.163	100	1.000	-0.07	0.447	0.520
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT	6	2437	14.85	15.50	1.163	100	1.000	-0.08	0.281	0.327
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 12+7	2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	14.33	15.00	1.167	100	1.000	0.11	0.211	0.246
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 12+7	2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	14.33	15.00	1.167	100	1.000	-0.14	0.281	0.328
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	14.33	15.00	1.167	100	1.000	0.04	0.393	0.459
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12+7	2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	14.33	15.00	1.167	100	1.000	-0.03	0.251	0.293
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 12+7	2.4G+WWAN+BT	6	2437	13.29	14.00	1.178	100	1.000	-0.07	0.172	0.203
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 12+7	2.4G+WWAN+BT	6	2437	13.29	14.00	1.178	100	1.000	-0.14	0.233	0.274
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	2.4G+WWAN+BT	6	2437	13.29	14.00	1.178	100	1.000	0.14	0.315	0.371
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12+7	2.4G+WWAN+BT	6	2437	13.29	14.00	1.178	100	1.000	-0.13	0.201	0.237
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	12.27	13.00	1.183	100	1.000	0.03	0.137	0.162
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	12.27	13.00	1.183	100	1.000	-0.03	0.182	0.215
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	12.27	13.00	1.183	100	1.000	0.12	0.253	0.299
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	12.27	13.00	1.183	100	1.000	0.12	0.159	0.188
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 9+8	Standalone	54	5270	17.51	18.50	1.257	93.87	1.065	-0.16	0.305	0.408
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 9+8	Standalone	54	5270	17.51	18.50	1.257	93.87	1.065	0.1	0.352	0.471
30	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	54	5270	17.51	18.50	1.257	93.87	1.065	0.05	0.769	1.029
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 9+8	Standalone	54	5270	17.51	18.50	1.257	93.87	1.065	-0.07	0.687	0.919
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	62	5310	17.04	18.00	1.248	93.87	1.065	0.04	0.719	0.955
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 9+8	Standalone	62	5310	17.04	18.00	1.248	93.87	1.065	-0.09	0.628	0.834
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	54	5270	15.54	16.50	1.248	93.87	1.065	-0.16	0.206	0.274
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	54	5270	15.54	16.50	1.248	93.87	1.065	0.1	0.231	0.307
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	54	5270	15.54	16.50	1.248	93.87	1.065	0.05	0.497	0.661
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	54	5270	15.54	16.50	1.248	93.87	1.065	-0.07	0.438	0.582
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	58	5290	11.25	12.50	1.332	87.99	1.136	-0.03	0.084	0.127
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	58	5290	11.25	12.50	1.332	87.99	1.136	0.05	0.096	0.145
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	58	5290	11.25	12.50	1.332	87.99	1.136	-0.14	0.181	0.274
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	58	5290	11.25	12.50	1.332	87.99	1.136	0.12	0.166	0.251
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	110	5550	18.42	18.50	1.020	93.87	1.065	0.02	0.303	0.329
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	110	5550	18.42	18.50	1.020	93.87	1.065	0.02	0.346	0.376
31	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	110	5550	18.42	18.50	1.020	93.87	1.065	0.03	0.601	0.653
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	110	5550	18.42	18.50	1.020	93.87	1.065	-0.12	0.475	0.516
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	122	5610	14.67	15.00	1.079	87.99	1.136	-0.11	0.121	0.148
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	122	5610	14.67	15.00	1.079	87.99	1.136	0.09	0.141	0.173
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	122	5610	14.67	15.00	1.079	87.99	1.136	-0.16	0.233	0.285
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G&2.4G+WWAN+5G/6G+BT	122	5610	14.67	15.00	1.079	87.99	1.136	-0.02	0.193	0.236
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 9+8	Standalone	151	5755	16.52	17.00	1.117	93.87	1.065	0.02	0.378	0.450



FCC SAR Test Report

Report No. : FA521816

	WLAN5.8GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 9+8	Standalone	151	5755	16.52	17.00	1.117	93.87	1.065	0.05	0.408	0.485
32	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	151	5755	16.52	17.00	1.117	93.87	1.065	0.13	0.703	0.836
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 9+8	Standalone	151	5755	16.52	17.00	1.117	93.87	1.065	0.07	0.644	0.766
	WLAN5.8GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	159	5795	15.95	16.50	1.135	93.87	1.065	0.15	0.633	0.765
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	-0.14	0.239	0.318
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	0.09	0.242	0.322
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	-0.01	0.486	0.648
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	0.01	0.453	0.604
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+ BT&2.4G+WWAN+5G/6G&2.4G +WWAN+5G/6G+BT	155	5775	11.79	12.50	1.178	87.99	1.136	0.04	0.111	0.149
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+ BT&2.4G+WWAN+5G/6G&2.4G +WWAN+5G/6G+BT	155	5775	11.79	12.50	1.178	87.99	1.136	-0.08	0.116	0.155
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+ BT&2.4G+WWAN+5G/6G&2.4G +WWAN+5G/6G+BT	155	5775	11.79	12.50	1.178	87.99	1.136	0.01	0.216	0.289
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	5G/6G+WWAN&5G/6G+WWAN+ BT&2.4G+WWAN+5G/6G&2.4G +WWAN+5G/6G+BT	155	5775	11.79	12.50	1.178	87.99	1.136	-0.09	0.209	0.280



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)
750 MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23095	707.5	20.22	21.30	1.282	-	-	-0.12	0.265	0.340
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23095	707.5	20.22	21.30	1.282	-	-	0.09	0.284	0.364
33	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	23095	707.5	20.22	21.30	1.282	-	-	-0.11	0.470	0.603
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 8	23095	707.5	20.20	21.30	1.288	-	-	0.09	0.258	0.332
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 8	23095	707.5	20.20	21.30	1.288	-	-	0.02	0.277	0.357
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	ECI 8	23095	707.5	20.20	21.30	1.288	-	-	-0.12	0.452	0.582
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23095	707.5	21.80	22.80	1.259	-	-	-0.05	0.182	0.229
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23095	707.5	21.80	22.80	1.259	-	-	0.07	0.197	0.248
	LTE Band 12	10M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	23095	707.5	21.80	22.80	1.259	-	-	0.05	0.286	0.360
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	23095	707.5	21.80	22.80	1.259	-	-	-0.11	0.073	0.092
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 8	23095	707.5	21.78	22.80	1.265	-	-	0.09	0.175	0.221
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 8	23095	707.5	21.78	22.80	1.265	-	-	0.01	0.191	0.242
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 1	ECI 8	23095	707.5	21.78	22.80	1.265	-	-	-0.05	0.270	0.341
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 1	ECI 8	23095	707.5	21.78	22.80	1.265	-	-	0.07	0.067	0.085
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23230	782	22.32	23.30	1.253	-	-	0.10	0.263	0.330
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23230	782	22.32	23.30	1.253	-	-	-0.12	0.280	0.351
34	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	23230	782	22.32	23.30	1.253	-	-	-0.08	0.531	0.665
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 8	23230	782	21.88	22.80	1.236	-	-	0.16	0.239	0.295
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 8	23230	782	21.88	22.80	1.236	-	-	0.00	0.254	0.314
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	ECI 8	23230	782	21.88	22.80	1.236	-	-	-0.09	0.456	0.564
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23230	782	22.88	23.80	1.236	-	-	0.00	0.158	0.195
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23230	782	22.88	23.80	1.236	-	-	0.10	0.181	0.224
	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	23230	782	22.88	23.80	1.236	-	-	-0.06	0.291	0.360
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	23230	782	22.88	23.80	1.236	-	-	0.06	0.084	0.104
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 8	23230	782	22.53	23.30	1.194	-	-	-0.02	0.137	0.164
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 8	23230	782	22.53	23.30	1.194	-	-	-0.13	0.160	0.191
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 1	ECI 8	23230	782	22.53	23.30	1.194	-	-	0.15	0.262	0.313
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 1	ECI 8	23230	782	22.53	23.30	1.194	-	-	0.11	0.071	0.085
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	ECI 8	141500	707.5	18.20	19.80	1.445	-	-	0.01	0.175	0.253
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	ECI 8	141500	707.5	18.20	19.80	1.445	-	-	0.10	0.189	0.273
36	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	ECI 8	141500	707.5	18.20	19.80	1.445	-	-	0.11	0.320	0.463
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	10mm	Ant 0	ECI 8	141500	707.5	18.19	19.80	1.449	-	-	-0.04	0.163	0.236
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	10mm	Ant 0	ECI 8	141500	707.5	18.19	19.80	1.449	-	-	0.12	0.174	0.252
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Side	10mm	Ant 0	ECI 8	141500	707.5	18.19	19.80	1.449	-	-	0.10	0.296	0.429
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	ECI 8	141500	707.5	18.80	20.20	1.380	-	-	0.07	0.083	0.115
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	ECI 8	141500	707.5	18.80	20.20	1.380	-	-	-0.11	0.105	0.145
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 1	ECI 8	141500	707.5	18.80	20.20	1.380	-	-	0.08	0.152	0.210
	FR1 n12	15M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	141500	707.5	18.80	20.20	1.380	-	-	0.06	0.041	0.057
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	10mm	Ant 1	ECI 8	141500	707.5	18.77	20.20	1.390	-	-	-0.08	0.078	0.108
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	10mm	Ant 1	ECI 8	141500	707.5	18.77	20.20	1.390	-	-	0.13	0.097	0.135
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Side	10mm	Ant 1	ECI 8	141500	707.5	18.77	20.20	1.390	-	-	-0.12	0.130	0.181
	FR1 n12	15M	QPSK	36	22	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	141500	707.5	18.77	20.20	1.390	-	-	0.09	0.037	0.051
835 MHz																				
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	10mm	Ant 0	ECI 8	189	836.4	25.85	27.10	1.334	-	-	0.02	0.256	0.341
	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	10mm	Ant 0	ECI 8	189	836.4	25.85	27.10	1.334	-	-	0.06	0.275	0.367
37	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Side	10mm	Ant 0	ECI 8	189	836.4	25.85	27.10	1.334	-	-	-0.10	0.513	0.684
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	10mm	Ant 1	ECI 8	189	836.4	28.13	29.50	1.371	-	-	-0.08	0.180	0.247
	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	10mm	Ant 1	ECI 8	189	836.4	28.13	29.50	1.371	-	-	0.11	0.211	0.289
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Side	10mm	Ant 1	ECI 8	189	836.4	28.13	29.50	1.371	-	-	-0.13	0.317	0.435
	GSM850	-	-	-	-	GPRS (3Tx slots)	Bottom Side	10mm	Ant 1	ECI 8	189	836.4	28.13	29.50	1.371	-	-	-0.03	0.118	0.162



FCC SAR Test Report

Report No. : FA521816

	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	ECI 8	4182	836.4	20.40	20.90	1.122	-	-	-0.05	0.110	0.123
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	ECI 8	4182	836.4	20.40	20.90	1.122	-	-	-0.12	0.115	0.129
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	ECI 8	4182	836.4	20.40	20.90	1.122	-	-	0.07	0.228	0.256
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	ECI 8	4182	836.4	23.30	23.80	1.122	-	-	-0.12	0.252	0.283
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	ECI 8	4182	836.4	23.30	23.80	1.122	-	-	-0.14	0.296	0.332
38	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 1	ECI 8	4182	836.4	23.30	23.80	1.122	-	-	0.14	0.443	0.497
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 1	ECI 8	4182	836.4	23.30	23.80	1.122	-	-	-0.11	0.169	0.190
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	26865	831.5	20.15	21.00	1.216	-	-	0.14	0.326	0.396
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	26865	831.5	20.15	21.00	1.216	-	-	-0.01	0.335	0.407
39	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	26865	831.5	20.15	21.00	1.216	-	-	-0.09	0.504	0.613
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	ECI 8	26865	831.5	20.13	21.00	1.222	-	-	0.16	0.315	0.385
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	ECI 8	26865	831.5	20.13	21.00	1.222	-	-	-0.08	0.325	0.397
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 0	ECI 8	26865	831.5	20.13	21.00	1.222	-	-	-0.07	0.467	0.571
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	26865	831.5	23.57	24.50	1.239	-	-	0.12	0.211	0.261
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	26865	831.5	23.57	24.50	1.239	-	-	-0.07	0.245	0.304
	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	26865	831.5	23.57	24.50	1.239	-	-	0.15	0.362	0.448
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	26865	831.5	23.57	24.50	1.239	-	-	0.12	0.133	0.165
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	ECI 8	26865	831.5	23.53	24.50	1.250	-	-	-0.09	0.205	0.256
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	ECI 8	26865	831.5	23.53	24.50	1.250	-	-	-0.07	0.236	0.295
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 1	ECI 8	26865	831.5	23.53	24.50	1.250	-	-	0.09	0.332	0.415
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 1	ECI 8	26865	831.5	23.53	24.50	1.250	-	-	0.09	0.131	0.164
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	ECI 8	166300	831.5	20.70	21.80	1.288	-	-	0.16	0.247	0.318
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	ECI 8	166300	831.5	20.70	21.80	1.288	-	-	0.09	0.259	0.334
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	ECI 8	166300	831.5	20.70	21.80	1.288	-	-	-0.06	0.468	0.603
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	ECI 8	166300	831.5	20.68	21.80	1.294	-	-	0.13	0.274	0.355
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	ECI 8	166300	831.5	20.68	21.80	1.294	-	-	0.12	0.286	0.370
40	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	ECI 8	166300	831.5	20.68	21.80	1.294	-	-	-0.13	0.517	0.669
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	ECI 8	166300	831.5	23.47	24.70	1.327	-	-	0.03	0.172	0.228
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	ECI 8	166300	831.5	23.47	24.70	1.327	-	-	0.06	0.203	0.269
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 1	ECI 8	166300	831.5	23.47	24.70	1.327	-	-	-0.04	0.396	0.526
	FR1 n26	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	166300	831.5	23.47	24.70	1.327	-	-	0.00	0.109	0.145
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	ECI 8	166300	831.5	23.45	24.70	1.334	-	-	-0.16	0.219	0.292
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	ECI 8	166300	831.5	23.45	24.70	1.334	-	-	0.05	0.261	0.348
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 1	ECI 8	166300	831.5	23.45	24.70	1.334	-	-	0.03	0.427	0.569
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	166300	831.5	23.45	24.70	1.334	-	-	-0.09	0.141	0.188
1750 MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	ECI 8	1413	1732.6	20.20	20.80	1.148	-	-	0.15	0.354	0.406
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	ECI 8	1413	1732.6	20.20	20.80	1.148	-	-	-0.06	0.421	0.483
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 5	ECI 8	1413	1732.6	20.20	20.80	1.148	-	-	0.14	0.126	0.145
44	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	ECI 8	1413	1732.6	20.20	20.80	1.148	-	-	0.08	0.573	0.658
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 6	ECI 8	1413	1732.6	18.50	18.90	1.096	-	-	0.07	0.201	0.220
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 6	ECI 8	1413	1732.6	18.50	18.90	1.096	-	-	-0.12	0.265	0.291
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 6	ECI 8	1413	1732.6	18.50	18.90	1.096	-	-	-0.09	0.085	0.093
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 6	ECI 8	1413	1732.6	18.50	18.90	1.096	-	-	-0.03	0.423	0.464
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 7	ECI 8	1413	1732.6	17.45	18.10	1.161	-	-	-0.10	0.080	0.093
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 7	ECI 8	1413	1732.6	17.45	18.10	1.161	-	-	-0.07	0.095	0.110
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 7	ECI 8	1413	1732.6	17.45	18.10	1.161	-	-	0.07	0.137	0.159
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 7	ECI 8	1413	1732.6	17.45	18.10	1.161	-	-	0.09	0.032	0.037
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 11	ECI 8	1413	1732.6	18.77	19.30	1.130	-	-	-0.14	0.103	0.116
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 11	ECI 8	1413	1732.6	18.77	19.30	1.130	-	-	0.15	0.146	0.165
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 11	ECI 8	1413	1732.6	18.77	19.30	1.130	-	-	0.10	0.167	0.189
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 11	ECI 8	1413	1732.6	18.77	19.30	1.130	-	-	0.06	0.041	0.046
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	20175	1732.5	17.10	17.80	1.175	-	-	0.01	0.098	0.115
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	20175	1732.5	17.10	17.80	1.175	-	-	0.06	0.112	0.132
	LTE Band 4	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	20175	1732.5	17.10	17.80	1.175	-	-	-0.04	0.186	0.219
	LTE Band 4	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	20175	1732.5	17.10	17.80	1.175	-	-	0.06	0.031	0.036



FCC SAR Test Report

Report No. : FA521816

	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	20175	1732.5	17.08	17.80	1.180	-	-	-0.07	0.094	0.111
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	20175	1732.5	17.08	17.80	1.180	-	-	-0.15	0.100	0.118
	LTE Band 4	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	20175	1732.5	17.08	17.80	1.180	-	-	0.08	0.171	0.202
	LTE Band 4	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	20175	1732.5	17.08	17.80	1.180	-	-	0.01	0.029	0.034
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	20175	1732.5	20.30	21.00	1.175	-	-	-0.02	0.162	0.190
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	20175	1732.5	20.30	21.00	1.175	-	-	-0.04	0.238	0.280
45	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	20175	1732.5	20.30	21.00	1.175	-	-	-0.11	0.279	0.328
	LTE Band 4	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	20175	1732.5	20.30	21.00	1.175	-	-	0.02	0.051	0.060
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	20175	1732.5	20.28	21.00	1.180	-	-	0.16	0.157	0.185
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	20175	1732.5	20.28	21.00	1.180	-	-	-0.04	0.224	0.264
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	20175	1732.5	20.28	21.00	1.180	-	-	0.16	0.261	0.308
	LTE Band 4	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	20175	1732.5	20.28	21.00	1.180	-	-	-0.13	0.048	0.057
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	132322	1745	20.24	21.00	1.191	-	-	-0.14	0.356	0.424
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	132322	1745	20.24	21.00	1.191	-	-	-0.05	0.423	0.504
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	132322	1745	20.24	21.00	1.191	-	-	0.00	0.098	0.117
46	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	132322	1745	20.24	21.00	1.191	-	-	0.16	0.592	0.705
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	132322	1745	20.20	21.00	1.202	-	-	-0.14	0.342	0.411
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	132322	1745	20.20	21.00	1.202	-	-	-0.05	0.418	0.503
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	132322	1745	20.20	21.00	1.202	-	-	0.02	0.092	0.111
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	132322	1745	20.20	21.00	1.202	-	-	0.11	0.564	0.678
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	132322	1745	18.50	19.10	1.148	-	-	0.09	0.240	0.276
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	132322	1745	18.50	19.10	1.148	-	-	0.15	0.336	0.386
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	132322	1745	18.50	19.10	1.148	-	-	-0.07	0.094	0.108
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	132322	1745	18.50	19.10	1.148	-	-	-0.14	0.473	0.543
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	132322	1745	18.49	19.10	1.151	-	-	0.09	0.239	0.275
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	132322	1745	18.49	19.10	1.151	-	-	-0.04	0.312	0.359
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	132322	1745	18.49	19.10	1.151	-	-	-0.10	0.090	0.104
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	132322	1745	18.49	19.10	1.151	-	-	-0.03	0.468	0.539
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	132322	1745	17.05	18.30	1.334	-	-	0.00	0.126	0.168
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	132322	1745	17.05	18.30	1.334	-	-	0.09	0.145	0.193
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	132322	1745	17.05	18.30	1.334	-	-	0.11	0.232	0.309
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	132322	1745	17.05	18.30	1.334	-	-	0.12	0.059	0.079
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	132322	1745	17.03	18.30	1.340	-	-	0.15	0.120	0.161
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	132322	1745	17.03	18.30	1.340	-	-	-0.11	0.136	0.182
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	132322	1745	17.03	18.30	1.340	-	-	0.14	0.217	0.291
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	132322	1745	17.03	18.30	1.340	-	-	-0.05	0.054	0.072
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	132322	1745	19.22	19.90	1.169	-	-	-0.03	0.131	0.153
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	132322	1745	19.22	19.90	1.169	-	-	0.13	0.186	0.218
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	132322	1745	19.22	19.90	1.169	-	-	-0.01	0.235	0.275
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	132322	1745	19.22	19.90	1.169	-	-	0.06	0.036	0.042
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	132322	1745	19.20	19.90	1.175	-	-	0.10	0.125	0.147
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	132322	1745	19.20	19.90	1.175	-	-	0.11	0.177	0.208
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	132322	1745	19.20	19.90	1.175	-	-	-0.15	0.220	0.258
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	132322	1745	19.20	19.90	1.175	-	-	0.01	0.031	0.036
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	349000	1745	20.80	21.90	1.288	-	-	0.06	0.371	0.478
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	349000	1745	20.80	21.90	1.288	-	-	-0.09	0.431	0.555
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	ECI 8	349000	1745	20.80	21.90	1.288	-	-	-0.02	0.130	0.167
	FR1 n66	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	349000	1745	20.80	21.90	1.288	-	-	-0.03	0.650	0.837
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	ECI 8	349000	1745	20.79	21.90	1.291	-	-	-0.07	0.401	0.518
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	ECI 8	349000	1745	20.79	21.90	1.291	-	-	0.10	0.487	0.629
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 5	ECI 8	349000	1745	20.79	21.90	1.291	-	-	-0.12	0.149	0.192
47	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	349000	1745	20.79	21.90	1.291	-	-	0.00	0.691	0.892
	FR1 n66	40M	QPSK	216	0	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	349000	1745	20.78	21.90	1.294	-	-	-0.01	0.666	0.862
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	ECI 8	349000	1745	18.60	19.10	1.122	-	-	-0.14	0.213	0.239
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	ECI 8	349000	1745	18.60	19.10	1.122	-	-	0.07	0.278	0.312
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	ECI 8	349000	1745	18.60	19.10	1.122	-	-	-0.14	0.088	0.099



FCC SAR Test Report

Report No. : FA521816

	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	ECI 8	349000	1745	18.60	19.10	1.122	-	-	0.10	0.420	0.471
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 6	ECI 8	349000	1745	18.58	19.10	1.127	-	-	0.01	0.244	0.275
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 6	ECI 8	349000	1745	18.58	19.10	1.127	-	-	0.01	0.309	0.348
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 6	ECI 8	349000	1745	18.58	19.10	1.127	-	-	0.03	0.119	0.134
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 6	ECI 8	349000	1745	18.58	19.10	1.127	-	-	-0.07	0.484	0.546
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 7	ECI 8	349000	1745	17.50	19.00	1.413	-	-	-0.07	0.126	0.178
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 7	ECI 8	349000	1745	17.50	19.00	1.413	-	-	-0.07	0.145	0.205
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 7	ECI 8	349000	1745	17.50	19.00	1.413	-	-	-0.06	0.248	0.350
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 7	ECI 8	349000	1745	17.50	19.00	1.413	-	-	0.16	0.052	0.073
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 7	ECI 8	349000	1745	17.46	19.00	1.426	-	-	0.00	0.120	0.171
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 7	ECI 8	349000	1745	17.46	19.00	1.426	-	-	0.11	0.137	0.195
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 7	ECI 8	349000	1745	17.46	19.00	1.426	-	-	-0.13	0.216	0.308
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 7	ECI 8	349000	1745	17.46	19.00	1.426	-	-	0.16	0.045	0.064
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 11	ECI 8	349000	1745	19.72	20.80	1.282	-	-	0.02	0.145	0.186
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 11	ECI 8	349000	1745	19.72	20.80	1.282	-	-	0.16	0.223	0.286
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 11	ECI 8	349000	1745	19.72	20.80	1.282	-	-	-0.04	0.268	0.344
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 11	ECI 8	349000	1745	19.72	20.80	1.282	-	-	-0.10	0.058	0.074
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 11	ECI 8	349000	1745	19.69	20.80	1.291	-	-	-0.13	0.138	0.178
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 11	ECI 8	349000	1745	19.69	20.80	1.291	-	-	0.05	0.201	0.260
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 11	ECI 8	349000	1745	19.69	20.80	1.291	-	-	0.13	0.245	0.316
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 11	ECI 8	349000	1745	19.69	20.80	1.291	-	-	0.06	0.052	0.067
1900 MHz																				
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	10mm	Ant 5	ECI 8	661	1880	27.42	28.50	1.282	-	-	0.16	0.299	0.383
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	10mm	Ant 5	ECI 8	661	1880	27.42	28.50	1.282	-	-	-0.05	0.393	0.504
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Side	10mm	Ant 5	ECI 8	661	1880	27.42	28.50	1.282	-	-	-0.11	0.174	0.223
48	GSM1900	-	-	-	-	GPRS (2Tx slots)	Bottom Side	10mm	Ant 5	ECI 8	661	1880	27.42	28.50	1.282	-	-	-0.15	0.853	1.094
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Bottom Side	10mm	Ant 5	ECI 8	512	1850.2	27.27	28.50	1.327	-	-	0.12	0.742	0.985
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Bottom Side	10mm	Ant 5	ECI 8	810	1909.8	27.31	28.50	1.315	-	-	-0.06	0.825	1.085
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	10mm	Ant 6	ECI 8	661	1880	26.05	26.70	1.161	-	-	-0.13	0.257	0.298
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	10mm	Ant 6	ECI 8	661	1880	26.05	26.70	1.161	-	-	0.13	0.329	0.382
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Side	10mm	Ant 6	ECI 8	661	1880	26.05	26.70	1.161	-	-	0.01	0.110	0.128
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Top Side	10mm	Ant 6	ECI 8	661	1880	26.05	26.70	1.161	-	-	0.01	0.454	0.527
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	ECI 8	9400	1880	19.05	19.80	1.189	-	-	0.07	0.249	0.296
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	ECI 8	9400	1880	19.05	19.80	1.189	-	-	0.02	0.309	0.367
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 5	ECI 8	9400	1880	19.05	19.80	1.189	-	-	0.01	0.123	0.146
49	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	ECI 8	9400	1880	19.05	19.80	1.189	-	-	0.07	0.524	0.623
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 6	ECI 8	9400	1880	18.42	18.90	1.117	-	-	0.14	0.148	0.165
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 6	ECI 8	9400	1880	18.42	18.90	1.117	-	-	0.06	0.212	0.237
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 6	ECI 8	9400	1880	18.42	18.90	1.117	-	-	-0.12	0.050	0.056
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 6	ECI 8	9400	1880	18.42	18.90	1.117	-	-	-0.10	0.322	0.360
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	18900	1880	19.15	19.80	1.161	-	-	0.04	0.368	0.427
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	18900	1880	19.15	19.80	1.161	-	-	0.03	0.452	0.525
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	18900	1880	19.15	19.80	1.161	-	-	0.00	0.087	0.101
50	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	18900	1880	19.15	19.80	1.161	-	-	0.16	0.726	0.843
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	18700	1860	19.11	19.80	1.172	-	-	0.04	0.696	0.816
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	19100	1900	19.09	19.80	1.178	-	-	0.03	0.685	0.807
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	18900	1880	19.13	19.80	1.167	-	-	-0.07	0.354	0.413
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	18900	1880	19.13	19.80	1.167	-	-	-0.02	0.447	0.522
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	18900	1880	19.13	19.80	1.167	-	-	-0.08	0.081	0.095
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	18900	1880	19.13	19.80	1.167	-	-	-0.15	0.710	0.828
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	18700	1860	19.06	19.80	1.186	-	-	-0.07	0.682	0.809
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	19100	1900	19.08	19.80	1.180	-	-	-0.02	0.675	0.797
	LTE Band 2	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 5	ECI 8	18900	1880	19.10	19.80	1.175	-	-	-0.07	0.689	0.810
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	18900	1880	18.42	19.40	1.253	-	-	-0.05	0.182	0.228
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	18900	1880	18.42	19.40	1.253	-	-	0.00	0.247	0.310
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	18900	1880	18.42	19.40	1.253	-	-	-0.13	0.064	0.080



FCC SAR Test Report

Report No. : FA521816

	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	18900	1880	18.42	19.40	1.253	-	-	0.05	0.385	0.482
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	18900	1880	18.40	19.40	1.259	-	-	0.16	0.178	0.224
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	18900	1880	18.40	19.40	1.259	-	-	0.13	0.243	0.306
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	18900	1880	18.40	19.40	1.259	-	-	-0.14	0.062	0.078
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	18900	1880	18.40	19.40	1.259	-	-	0.03	0.358	0.451
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	18900	1880	14.95	16.40	1.396	-	-	-0.11	0.129	0.180
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	18900	1880	14.95	16.40	1.396	-	-	-0.16	0.132	0.184
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	18900	1880	14.95	16.40	1.396	-	-	0.13	0.193	0.269
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	18900	1880	14.95	16.40	1.396	-	-	0.07	0.042	0.059
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	18900	1880	14.90	16.40	1.413	-	-	0.09	0.120	0.170
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	18900	1880	14.90	16.40	1.413	-	-	0.02	0.125	0.177
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	18900	1880	14.90	16.40	1.413	-	-	-0.11	0.181	0.256
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	18900	1880	14.90	16.40	1.413	-	-	0.08	0.040	0.057
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	18900	1880	18.09	18.70	1.151	-	-	0.11	0.169	0.194
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	18900	1880	18.09	18.70	1.151	-	-	-0.03	0.238	0.274
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	18900	1880	18.09	18.70	1.151	-	-	-0.07	0.313	0.360
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	18900	1880	18.09	18.70	1.151	-	-	-0.09	0.065	0.075
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	18900	1880	18.05	18.70	1.161	-	-	-0.02	0.162	0.188
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	18900	1880	18.05	18.70	1.161	-	-	-0.01	0.225	0.261
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	18900	1880	18.05	18.70	1.161	-	-	0.10	0.302	0.351
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	18900	1880	18.05	18.70	1.161	-	-	-0.16	0.061	0.071
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	376000	1880	19.90	21.20	1.349	-	-	0.13	0.352	0.475
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	376000	1880	19.90	21.20	1.349	-	-	-0.07	0.421	0.568
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	ECI 8	376000	1880	19.90	21.20	1.349	-	-	-0.03	0.172	0.232
51	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	376000	1880	19.90	21.20	1.349	-	-	0.10	0.696	0.939
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	372000	1860	19.82	21.20	1.374	-	-	0.13	0.675	0.927
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	380000	1900	19.85	21.20	1.365	-	-	0.03	0.674	0.920
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 5	ECI 8	376000	1880	19.89	21.20	1.352	-	-	0.02	0.341	0.461
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 5	ECI 8	376000	1880	19.89	21.20	1.352	-	-	-0.06	0.407	0.550
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 5	ECI 8	376000	1880	19.89	21.20	1.352	-	-	0.12	0.161	0.218
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	376000	1880	19.89	21.20	1.352	-	-	-0.10	0.674	0.911
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	372000	1860	19.75	21.20	1.396	-	-	0.09	0.667	0.931
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	380000	1900	19.83	21.20	1.371	-	-	0.00	0.656	0.899
	FR1 n2	20M	QPSK	100	0	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	376000	1880	19.85	21.20	1.365	-	-	-0.16	0.679	0.927
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	ECI 8	376000	1880	18.73	19.80	1.279	-	-	-0.03	0.175	0.224
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	ECI 8	376000	1880	18.73	19.80	1.279	-	-	-0.15	0.246	0.315
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	ECI 8	376000	1880	18.73	19.80	1.279	-	-	0.01	0.059	0.075
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	ECI 8	376000	1880	18.73	19.80	1.279	-	-	-0.05	0.358	0.458
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 6	ECI 8	376000	1880	18.69	19.80	1.291	-	-	0.06	0.179	0.231
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 6	ECI 8	376000	1880	18.69	19.80	1.291	-	-	-0.08	0.251	0.324
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 6	ECI 8	376000	1880	18.69	19.80	1.291	-	-	0.06	0.060	0.077
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 6	ECI 8	376000	1880	18.69	19.80	1.291	-	-	0.12	0.419	0.541
2600 MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	21100	2535	18.88	19.50	1.153	-	-	-0.07	0.243	0.280
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	21100	2535	18.88	19.50	1.153	-	-	0.02	0.308	0.355
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	21100	2535	18.88	19.50	1.153	-	-	-0.05	0.098	0.113
52	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	21100	2535	18.88	19.50	1.153	-	-	-0.01	0.604	0.697
	LTE Band 7C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	21100+21298	2535+2554.8	18.82	19.50	1.169	-	-	0.01	0.546	0.639
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	21100	2535	18.84	19.50	1.164	-	-	-0.02	0.233	0.271
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	21100	2535	18.84	19.50	1.164	-	-	0.16	0.299	0.348
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	21100	2535	18.84	19.50	1.164	-	-	0.11	0.095	0.111
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	21100	2535	18.84	19.50	1.164	-	-	0.07	0.572	0.666
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	21100	2535	16.58	17.50	1.236	-	-	-0.08	0.125	0.154
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	21100	2535	16.58	17.50	1.236	-	-	-0.05	0.186	0.230
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	21100	2535	16.58	17.50	1.236	-	-	-0.12	0.095	0.117
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	21100	2535	16.58	17.50	1.236	-	-	-0.07	0.280	0.346



FCC SAR Test Report

Report No. : FA521816

	LTE Band 7C	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	21100+ 21298	2535+ 2554.8	16.50	17.50	1.259	-	-	0.05	0.248	0.312
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	21100	2535	16.57	17.50	1.239	-	-	0.10	0.120	0.149
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	21100	2535	16.57	17.50	1.239	-	-	-0.16	0.173	0.214
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	21100	2535	16.57	17.50	1.239	-	-	0.12	0.091	0.113
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	21100	2535	16.57	17.50	1.239	-	-	-0.16	0.270	0.334
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	21350	2560	18.30	19.00	1.175	-	-	-0.14	0.222	0.261
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	21350	2560	18.30	19.00	1.175	-	-	-0.09	0.295	0.347
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	21350	2560	18.30	19.00	1.175	-	-	0.01	0.540	0.634
	LTE Band 7C	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	21350+ 21152	2560+ 2540.2	18.23	19.00	1.194	-	-	0.05	0.496	0.592
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	21350	2560	18.30	19.00	1.175	-	-	-0.16	0.060	0.070
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	21350	2560	18.28	19.00	1.180	-	-	-0.05	0.210	0.248
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	21350	2560	18.28	19.00	1.180	-	-	0.13	0.286	0.338
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	21350	2560	18.28	19.00	1.180	-	-	0.05	0.522	0.616
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	21350	2560	18.28	19.00	1.180	-	-	-0.10	0.053	0.063
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	21100	2535	16.88	17.40	1.127	-	-	0.04	0.140	0.158
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	21100	2535	16.88	17.40	1.127	-	-	0.08	0.211	0.238
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	21100	2535	16.88	17.40	1.127	-	-	0.01	0.337	0.380
	LTE Band 7C	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	21100+ 21298	2535+ 2554.8	16.78	17.40	1.153	-	-	0.07	0.306	0.353
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	21100	2535	16.88	17.40	1.127	-	-	0.06	0.041	0.046
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	21100	2535	16.85	17.40	1.135	-	-	0.16	0.138	0.157
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	21100	2535	16.85	17.40	1.135	-	-	-0.14	0.202	0.229
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	21100	2535	16.85	17.40	1.135	-	-	-0.14	0.316	0.359
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	21100	2535	16.85	17.40	1.135	-	-	0.09	0.037	0.042
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	38000	2595	20.90	21.50	1.148	62.9	1.006	0.13	0.233	0.269
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	38000	2595	20.90	21.50	1.148	62.9	1.006	-0.13	0.303	0.350
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	38000	2595	20.90	21.50	1.148	62.9	1.006	0.12	0.071	0.082
53	LTE Band 38	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	38000	2595	20.90	21.50	1.148	62.9	1.006	0.09	0.566	0.654
	LTE Band 38C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	37901+ 38099	2585.1+ 2604.9	20.81	21.50	1.172	62.9	1.006	0.06	0.497	0.586
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	38000	2595	20.85	21.50	1.161	62.9	1.006	0.13	0.224	0.262
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	38000	2595	20.85	21.50	1.161	62.9	1.006	-0.13	0.296	0.346
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	38000	2595	20.85	21.50	1.161	62.9	1.006	-0.06	0.067	0.078
	LTE Band 38	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	38000	2595	20.85	21.50	1.161	62.9	1.006	-0.10	0.552	0.645
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	38000	2595	18.38	18.90	1.127	62.9	1.006	-0.06	0.112	0.127
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	38000	2595	18.38	18.90	1.127	62.9	1.006	0.00	0.149	0.169
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	38000	2595	18.38	18.90	1.127	62.9	1.006	-0.16	0.074	0.084
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	38000	2595	18.38	18.90	1.127	62.9	1.006	0.06	0.279	0.316
	LTE Band 38C	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	37901+ 38099	2585.1+ 2604.9	18.22	18.90	1.169	62.9	1.006	0.05	0.254	0.299
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	38000	2595	18.36	18.90	1.132	62.9	1.006	-0.09	0.109	0.124
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	38000	2595	18.36	18.90	1.132	62.9	1.006	0.05	0.140	0.159
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	38000	2595	18.36	18.90	1.132	62.9	1.006	0.16	0.069	0.079
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	38000	2595	18.36	18.90	1.132	62.9	1.006	0.15	0.268	0.305
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	38000	2595	18.80	19.50	1.175	62.9	1.006	-0.13	0.186	0.220
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	38000	2595	18.80	19.50	1.175	62.9	1.006	-0.10	0.235	0.278
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	38000	2595	18.80	19.50	1.175	62.9	1.006	0.01	0.386	0.456
	LTE Band 38C	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	37901+ 38099	2585.1+ 2604.9	18.73	19.50	1.194	62.9	1.006	0.05	0.348	0.418
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	38000	2595	18.80	19.50	1.175	62.9	1.006	-0.04	0.061	0.072
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	38000	2595	18.76	19.50	1.186	62.9	1.006	-0.08	0.170	0.203
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	38000	2595	18.76	19.50	1.186	62.9	1.006	0.14	0.225	0.268
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	38000	2595	18.76	19.50	1.186	62.9	1.006	0.10	0.381	0.454
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	38000	2595	18.76	19.50	1.186	62.9	1.006	0.15	0.051	0.061
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	38000	2595	18.33	18.90	1.140	62.9	1.006	-0.02	0.123	0.141
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	38000	2595	18.33	18.90	1.140	62.9	1.006	0.02	0.175	0.201
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	38000	2595	18.33	18.90	1.140	62.9	1.006	0.01	0.285	0.327
	LTE Band 38C	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	37901+ 38099	2585.1+ 2604.9	18.24	18.90	1.164	62.9	1.006	0.04	0.249	0.292



FCC SAR Test Report

Report No. : FA521816

	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	38000	2595	18.33	18.90	1.140	62.9	1.006	0.09	0.043	0.049
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	38000	2595	18.32	18.90	1.143	62.9	1.006	0.16	0.116	0.133
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	38000	2595	18.32	18.90	1.143	62.9	1.006	-0.15	0.169	0.194
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	38000	2595	18.32	18.90	1.143	62.9	1.006	0.04	0.275	0.316
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	38000	2595	18.32	18.90	1.143	62.9	1.006	-0.05	0.038	0.044
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	40620	2593	22.32	22.80	1.117	62.9	1.006	0.03	0.313	0.352
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	40620	2593	22.32	22.80	1.117	62.9	1.006	0.06	0.389	0.437
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	40620	2593	22.32	22.80	1.117	62.9	1.006	0.04	0.094	0.106
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	40620	2593	22.32	22.80	1.117	62.9	1.006	0.15	0.739	0.830
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	39750	2506	22.20	22.80	1.148	62.9	1.006	-0.12	0.627	0.724
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	40185	2549.5	22.28	22.80	1.127	62.9	1.006	0.00	0.679	0.770
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	41055	2636.5	22.30	22.80	1.122	62.9	1.006	-0.14	0.798	0.901
54	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	41490	2680	22.23	22.80	1.140	62.9	1.006	-0.07	0.857	0.983
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	41490	2680	23.35	24.30	1.245	42.9	1.009	-0.08	0.737	0.925
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	40620	2593	21.85	22.30	1.109	62.9	1.006	-0.16	0.269	0.300
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	40620	2593	21.85	22.30	1.109	62.9	1.006	-0.12	0.341	0.380
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	40620	2593	21.85	22.30	1.109	62.9	1.006	0.00	0.086	0.096
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	40620	2593	21.85	22.30	1.109	62.9	1.006	0.05	0.663	0.740
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	39750	2506	21.75	22.30	1.135	62.9	1.006	-0.03	0.549	0.627
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	40185	2549.5	21.80	22.30	1.122	62.9	1.006	-0.06	0.612	0.691
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	41055	2636.5	21.80	22.30	1.122	62.9	1.006	0.05	0.711	0.803
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	41490	2680	21.78	22.30	1.127	62.9	1.006	-0.05	0.762	0.864
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 5	ECI 8	40620	2593	21.80	22.30	1.122	62.9	1.006	0.03	0.660	0.745
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	40620	2593	18.55	19.30	1.189	62.9	1.006	-0.14	0.116	0.139
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	40620	2593	18.55	19.30	1.189	62.9	1.006	-0.13	0.153	0.183
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	40620	2593	18.55	19.30	1.189	62.9	1.006	-0.06	0.078	0.093
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	40620	2593	18.55	19.30	1.189	62.9	1.006	0.09	0.296	0.354
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	40620	2593	19.90	20.80	1.230	42.9	1.009	-0.08	0.256	0.318
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	40620	2593	18.52	19.30	1.197	62.9	1.006	0.00	0.109	0.131
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	40620	2593	18.52	19.30	1.197	62.9	1.006	0.00	0.149	0.179
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	40620	2593	18.52	19.30	1.197	62.9	1.006	0.14	0.071	0.085
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	40620	2593	18.52	19.30	1.197	62.9	1.006	-0.14	0.285	0.343
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	40620	2593	18.10	18.80	1.175	62.9	1.006	0.15	0.160	0.189
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	40620	2593	18.10	18.80	1.175	62.9	1.006	0.06	0.223	0.264
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	40620	2593	18.10	18.80	1.175	62.9	1.006	0.10	0.358	0.423
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	40620	2593	18.10	18.80	1.175	62.9	1.006	0.06	0.054	0.064
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	40620	2593	20.00	20.80	1.202	42.9	1.009	0.11	0.345	0.419
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	40620	2593	17.56	18.30	1.186	62.9	1.006	0.16	0.139	0.166
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	40620	2593	17.56	18.30	1.186	62.9	1.006	0.09	0.211	0.252
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	40620	2593	17.56	18.30	1.186	62.9	1.006	-0.03	0.321	0.383
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	40620	2593	17.56	18.30	1.186	62.9	1.006	-0.07	0.046	0.055
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	40620	2593	18.18	18.70	1.127	62.9	1.006	0.03	0.058	0.066
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	40620	2593	18.18	18.70	1.127	62.9	1.006	0.02	0.079	0.090
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	40620	2593	18.18	18.70	1.127	62.9	1.006	0.12	0.142	0.161
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	40620	2593	18.18	18.70	1.127	62.9	1.006	0.09	0.038	0.043
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	40620	2593	19.42	20.20	1.197	42.9	1.009	-0.16	0.121	0.146
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	40620	2593	18.17	18.70	1.130	62.9	1.006	-0.04	0.051	0.058
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	40620	2593	18.17	18.70	1.130	62.9	1.006	0.03	0.075	0.085
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	40620	2593	18.17	18.70	1.130	62.9	1.006	-0.08	0.134	0.152
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	40620	2593	18.17	18.70	1.130	62.9	1.006	0.06	0.032	0.036
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	507000	2535	18.75	19.90	1.303	-	-	-0.10	0.241	0.314
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	507000	2535	18.75	19.90	1.303	-	-	-0.14	0.298	0.388
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	ECI 8	507000	2535	18.75	19.90	1.303	-	-	-0.15	0.075	0.098
	FR1 n7	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	507000	2535	18.75	19.90	1.303	-	-	0.01	0.586	0.764
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	ECI 8	507000	2535	18.73	19.90	1.309	-	-	-0.02	0.248	0.325
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	ECI 8	507000	2535	18.73	19.90	1.309	-	-	-0.12	0.309	0.405



FCC SAR Test Report

Report No. : FA521816

	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 5	ECI 8	507000	2535	18.73	19.90	1.309	-	-	-0.04	0.086	0.113
	FR1 n7	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	507000	2535	18.73	19.90	1.309	-	-	0.13	0.632	0.827
	FR1 n7	40M	QPSK	216	0	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	507000	2535	18.70	19.90	1.318	-	-	0.06	0.606	0.799
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	ECI 8	507000	2535	16.80	17.90	1.288	-	-	0.16	0.163	0.210
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	ECI 8	507000	2535	16.80	17.90	1.288	-	-	-0.14	0.191	0.246
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	ECI 8	507000	2535	16.80	17.90	1.288	-	-	-0.12	0.086	0.111
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	ECI 8	507000	2535	16.80	17.90	1.288	-	-	0.05	0.381	0.491
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 6	ECI 8	507000	2535	16.76	17.90	1.300	-	-	-0.09	0.156	0.203
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 6	ECI 8	507000	2535	16.76	17.90	1.300	-	-	0.01	0.180	0.234
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 6	ECI 8	507000	2535	16.76	17.90	1.300	-	-	-0.09	0.079	0.103
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 6	ECI 8	507000	2535	16.76	17.90	1.300	-	-	0.13	0.345	0.449
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 7	ECI 8	507000	2535	18.60	19.90	1.349	-	-	-0.04	0.263	0.355
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 7	ECI 8	507000	2535	18.60	19.90	1.349	-	-	0.11	0.376	0.507
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 7	ECI 8	507000	2535	18.60	19.90	1.349	-	-	-0.12	0.596	0.804
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 7	ECI 8	507000	2535	18.60	19.90	1.349	-	-	0.05	0.031	0.042
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 7	ECI 8	507000	2535	18.58	19.90	1.355	-	-	0.14	0.292	0.396
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 7	ECI 8	507000	2535	18.58	19.90	1.355	-	-	0.14	0.404	0.547
55	FR1 n7	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 7	ECI 8	507000	2535	18.58	19.90	1.355	-	-	0.01	0.610	0.827
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 7	ECI 8	507000	2535	18.58	19.90	1.355	-	-	0.10	0.035	0.047
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Side	10mm	Ant 7	ECI 8	507000	2535	18.55	19.90	1.365	-	-	0.08	0.575	0.785
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 11	ECI 8	507000	2535	16.99	17.80	1.205	-	-	-0.06	0.121	0.146
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 11	ECI 8	507000	2535	16.99	17.80	1.205	-	-	0.10	0.184	0.222
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 11	ECI 8	507000	2535	16.99	17.80	1.205	-	-	0.16	0.297	0.358
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 11	ECI 8	507000	2535	16.99	17.80	1.205	-	-	0.06	0.031	0.037
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 11	ECI 8	507000	2535	16.95	17.80	1.216	-	-	0.04	0.144	0.175
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 11	ECI 8	507000	2535	16.95	17.80	1.216	-	-	-0.15	0.208	0.253
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 11	ECI 8	507000	2535	16.95	17.80	1.216	-	-	0.10	0.342	0.416
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 11	ECI 8	507000	2535	16.95	17.80	1.216	-	-	0.06	0.035	0.043
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	519000	2595	18.66	19.90	1.330	-	-	-0.02	0.248	0.330
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	519000	2595	18.66	19.90	1.330	-	-	0.03	0.315	0.419
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	ECI 8	519000	2595	18.66	19.90	1.330	-	-	-0.16	0.071	0.094
	FR1 n38	40M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	519000	2595	18.66	19.90	1.330	-	-	0.07	0.600	0.798
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 5	ECI 8	519000	2595	18.65	19.90	1.334	-	-	0.02	0.251	0.335
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 5	ECI 8	519000	2595	18.65	19.90	1.334	-	-	0.13	0.331	0.441
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 5	ECI 8	519000	2595	18.65	19.90	1.334	-	-	-0.10	0.083	0.111
56	FR1 n38	40M	QPSK	50	28	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	519000	2595	18.65	19.90	1.334	-	-	0.09	0.613	0.817
	FR1 n38	40M	QPSK	100	0	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	519000	2595	18.60	19.90	1.349	-	-	0.12	0.592	0.799
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	519000	2595	17.30	18.30	1.259	-	-	0.14	0.172	0.217
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	519000	2595	17.30	18.30	1.259	-	-	0.06	0.204	0.257
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	519000	2595	17.30	18.30	1.259	-	-	-0.10	0.071	0.089
	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	519000	2595	17.30	18.30	1.259	-	-	-0.10	0.498	0.627
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 6	ECI 8	519000	2595	17.27	18.30	1.268	-	-	0.00	0.182	0.231
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 6	ECI 8	519000	2595	17.27	18.30	1.268	-	-	-0.16	0.227	0.288
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 6	ECI 8	519000	2595	17.27	18.30	1.268	-	-	-0.14	0.102	0.129
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 6	ECI 8	519000	2595	17.27	18.30	1.268	-	-	-0.08	0.501	0.635
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	519000	2595	16.30	17.60	1.349	-	-	0.03	0.148	0.200
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	519000	2595	16.30	17.60	1.349	-	-	-0.12	0.211	0.285
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	519000	2595	16.30	17.60	1.349	-	-	-0.07	0.336	0.453
	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	519000	2595	16.30	17.60	1.349	-	-	0.06	0.041	0.055
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 7	ECI 8	519000	2595	16.28	17.60	1.355	-	-	0.07	0.140	0.190
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 7	ECI 8	519000	2595	16.28	17.60	1.355	-	-	0.05	0.204	0.276
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 7	ECI 8	519000	2595	16.28	17.60	1.355	-	-	0.04	0.321	0.435
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 7	ECI 8	519000	2595	16.28	17.60	1.355	-	-	0.07	0.033	0.045
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 8	519000	2595	16.95	17.80	1.216	-	-	0.07	0.079	0.096
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 8	519000	2595	16.95	17.80	1.216	-	-	-0.16	0.105	0.128
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 8	519000	2595	16.95	17.80	1.216	-	-	0.00	0.185	0.225



FCC SAR Test Report

Report No. : FA521816

	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 8	519000	2595	16.95	17.80	1.216	-	-	0.06	0.032	0.039
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 11	ECI 8	519000	2595	16.90	17.80	1.230	-	-	0.01	0.074	0.091
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 11	ECI 8	519000	2595	16.90	17.80	1.230	-	-	-0.11	0.097	0.119
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 11	ECI 8	519000	2595	16.90	17.80	1.230	-	-	0.05	0.172	0.212
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 11	ECI 8	519000	2595	16.90	17.80	1.230	-	-	0.01	0.026	0.032
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	518598	2592.99	19.13	20.20	1.279	-	-	-0.08	0.258	0.330
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	518598	2592.99	19.13	20.20	1.279	-	-	-0.15	0.340	0.435
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	ECI 8	518598	2592.99	19.13	20.20	1.279	-	-	0.02	0.067	0.086
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	518598	2592.99	19.13	20.20	1.279	-	-	-0.02	0.646	0.826
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	ECI 8	518598	2592.99	19.11	20.20	1.285	-	-	0.01	0.271	0.348
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	518598	2592.99	19.11	20.20	1.285	-	-	-0.10	0.353	0.454
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	ECI 8	518598	2592.99	19.11	20.20	1.285	-	-	-0.08	0.080	0.103
57	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	518598	2592.99	19.11	20.20	1.285	-	-	-0.16	0.672	0.864
	FR1 n41 PC2	100M	QPSK	270	0	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	518598	2592.99	19.08	20.20	1.294	-	-	-0.12	0.640	0.828
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	518598	2592.99	15.68	16.70	1.265	-	-	-0.07	0.108	0.137
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	518598	2592.99	15.68	16.70	1.265	-	-	-0.04	0.133	0.168
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	518598	2592.99	15.68	16.70	1.265	-	-	0.04	0.050	0.063
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	518598	2592.99	15.68	16.70	1.265	-	-	-0.05	0.330	0.417
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	518598	2592.99	15.65	16.70	1.274	-	-	0.00	0.123	0.157
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	518598	2592.99	15.65	16.70	1.274	-	-	-0.06	0.161	0.205
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	518598	2592.99	15.65	16.70	1.274	-	-	-0.02	0.085	0.108
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	518598	2592.99	15.65	16.70	1.274	-	-	0.07	0.383	0.488
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	518598	2592.99	16.20	17.20	1.259	-	-	-0.15	0.105	0.132
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	518598	2592.99	16.20	17.20	1.259	-	-	-0.04	0.152	0.191
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	518598	2592.99	16.20	17.20	1.259	-	-	-0.15	0.249	0.313
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	518598	2592.99	16.20	17.20	1.259	-	-	0.01	0.035	0.044
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	ECI 8	518598	2592.99	16.18	17.20	1.265	-	-	-0.11	0.129	0.163
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	ECI 8	518598	2592.99	16.18	17.20	1.265	-	-	-0.10	0.188	0.238
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	ECI 8	518598	2592.99	16.18	17.20	1.265	-	-	-0.12	0.304	0.384
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	ECI 8	518598	2592.99	16.18	17.20	1.265	-	-	0.09	0.032	0.040
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 8	518598	2592.99	15.35	16.10	1.189	-	-	-0.09	0.125	0.149
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 8	518598	2592.99	15.35	16.10	1.189	-	-	-0.04	0.163	0.194
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 8	518598	2592.99	15.35	16.10	1.189	-	-	-0.12	0.264	0.314
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 8	518598	2592.99	15.35	16.10	1.189	-	-	0.09	0.033	0.039
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	ECI 8	518598	2592.99	15.29	16.10	1.205	-	-	0.13	0.112	0.135
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	ECI 8	518598	2592.99	15.29	16.10	1.205	-	-	-0.03	0.152	0.183
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	ECI 8	518598	2592.99	15.29	16.10	1.205	-	-	0.02	0.252	0.304
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	ECI 8	518598	2592.99	15.29	16.10	1.205	-	-	-0.09	0.024	0.029
3-4GHZ																				
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3499.98	16.45	17.20	1.189	-	-	-0.14	0.085	0.101
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3499.98	16.45	17.20	1.189	-	-	0.02	0.201	0.239
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3499.98	16.45	17.20	1.189	-	-	0.15	0.093	0.111
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3499.98	16.45	17.20	1.189	-	-	-0.03	0.152	0.181
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3499.98	16.42	17.20	1.197	-	-	-0.13	0.098	0.117
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3499.98	16.42	17.20	1.197	-	-	0.15	0.213	0.255
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3499.98	16.42	17.20	1.197	-	-	-0.04	0.103	0.123
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3499.98	16.42	17.20	1.197	-	-	0.10	0.163	0.195
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	656000	3840	16.22	17.20	1.253	-	-	0.04	0.113	0.142
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	656000	3840	16.22	17.20	1.253	-	-	-0.09	0.200	0.251
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	656000	3840	16.22	17.20	1.253	-	-	-0.09	0.052	0.065
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	656000	3840	16.22	17.20	1.253	-	-	0.12	0.154	0.193
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	656000	3840	16.20	17.20	1.259	-	-	-0.07	0.100	0.126
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	656000	3840	16.20	17.20	1.259	-	-	-0.06	0.178	0.224
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	656000	3840	16.20	17.20	1.259	-	-	0.06	0.049	0.062
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	656000	3840	16.20	17.20	1.259	-	-	0.01	0.135	0.170
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3499.98	16.54	18.20	1.466	-	-	-0.12	0.126	0.185



FCC SAR Test Report

Report No. : FA521816

	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3499.98	16.54	18.20	1.466	-	-	0.02	0.205	0.300
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3499.98	16.54	18.20	1.466	-	-	0.00	0.173	0.254
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3499.98	16.54	18.20	1.466	-	-	0.01	0.036	0.053
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3499.98	16.53	18.20	1.469	-	-	-0.11	0.115	0.169
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3499.98	16.53	18.20	1.469	-	-	0.15	0.182	0.267
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3499.98	16.53	18.20	1.469	-	-	0.06	0.168	0.247
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3499.98	16.53	18.20	1.469	-	-	0.01	0.031	0.046
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	656000	3840	16.63	18.20	1.435	-	-	-0.05	0.116	0.167
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	656000	3840	16.63	18.20	1.435	-	-	0.03	0.207	0.297
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	656000	3840	16.63	18.20	1.435	-	-	0.04	0.186	0.267
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	656000	3840	16.63	18.20	1.435	-	-	0.09	0.029	0.042
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	656000	3840	16.62	18.20	1.439	-	-	-0.04	0.104	0.150
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	656000	3840	16.62	18.20	1.439	-	-	0.11	0.185	0.266
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	656000	3840	16.62	18.20	1.439	-	-	-0.16	0.168	0.242
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	656000	3840	16.62	18.20	1.439	-	-	0.03	0.026	0.037
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	16.82	18.20	1.374	-	-	0.06	0.037	0.051
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	16.82	18.20	1.374	-	-	-0.02	0.040	0.055
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	16.82	18.20	1.374	-	-	0.09	0.025	0.034
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	16.82	18.20	1.374	-	-	0.05	0.081	0.111
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	16.80	18.20	1.380	-	-	0.01	0.034	0.047
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	16.80	18.20	1.380	-	-	0.06	0.037	0.051
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	16.80	18.20	1.380	-	-	0.06	0.023	0.032
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	16.80	18.20	1.380	-	-	0.13	0.072	0.099
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	656000	3840	16.92	18.20	1.343	-	-	0.00	0.081	0.109
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	656000	3840	16.92	18.20	1.343	-	-	-0.01	0.102	0.137
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	656000	3840	16.92	18.20	1.343	-	-	-0.16	0.058	0.078
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	656000	3840	16.92	18.20	1.343	-	-	-0.06	0.138	0.185
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	656000	3840	16.90	18.20	1.349	-	-	-0.15	0.074	0.100
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	656000	3840	16.90	18.20	1.349	-	-	0.02	0.096	0.130
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	656000	3840	16.90	18.20	1.349	-	-	-0.01	0.051	0.069
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	656000	3840	16.90	18.20	1.349	-	-	-0.05	0.120	0.162
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3499.98	16.18	17.70	1.419	-	-	0.15	0.151	0.214
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3499.98	16.18	17.70	1.419	-	-	-0.05	0.232	0.329
58	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3499.98	16.18	17.70	1.419	-	-	-0.06	0.378	0.536
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3499.98	16.15	17.70	1.429	-	-	0.03	0.149	0.213
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3499.98	16.15	17.70	1.429	-	-	-0.02	0.225	0.322
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3499.98	16.15	17.70	1.429	-	-	0.11	0.341	0.487
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	656000	3840	16.20	17.70	1.413	-	-	0.14	0.142	0.201
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	656000	3840	16.20	17.70	1.413	-	-	-0.13	0.189	0.267
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	656000	3840	16.20	17.70	1.413	-	-	0.08	0.246	0.347
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	656000	3840	16.17	17.70	1.422	-	-	0.03	0.132	0.188
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	656000	3840	16.17	17.70	1.422	-	-	-0.07	0.171	0.243
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	656000	3840	16.17	17.70	1.422	-	-	0.01	0.230	0.327
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3499.98	17.13	18.20	1.279	-	-	0.13	0.112	0.143
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3499.98	17.13	18.20	1.279	-	-	0.14	0.216	0.276
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3499.98	17.13	18.20	1.279	-	-	-0.06	0.117	0.150
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3499.98	17.13	18.20	1.279	-	-	-0.02	0.163	0.209
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3499.98	17.06	18.20	1.300	-	-	0.11	0.108	0.140
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3499.98	17.06	18.20	1.300	-	-	0.09	0.209	0.272
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3499.98	17.06	18.20	1.300	-	-	-0.09	0.109	0.142
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3499.98	17.06	18.20	1.300	-	-	-0.11	0.151	0.196
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	650000	3750	17.55	18.20	1.161	-	-	-0.01	0.109	0.127
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	650000	3750	17.55	18.20	1.161	-	-	0.15	0.235	0.273
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	650000	3750	17.55	18.20	1.161	-	-	-0.13	0.060	0.070
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	650000	3750	17.55	18.20	1.161	-	-	0.05	0.149	0.173
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	650000	3750	17.53	18.20	1.167	-	-	-0.13	0.100	0.117



FCC SAR Test Report

Report No. : FA521816

	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	650000	3750	17.53	18.20	1.167	-	-	0.06	0.233	0.272
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	650000	3750	17.53	18.20	1.167	-	-	0.09	0.053	0.062
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	650000	3750	17.53	18.20	1.167	-	-	0.14	0.138	0.161
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3499.98	17.00	18.70	1.479	-	-	0.14	0.136	0.201
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3499.98	17.00	18.70	1.479	-	-	0.12	0.248	0.367
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3499.98	17.00	18.70	1.479	-	-	0.08	0.202	0.299
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3499.98	17.00	18.70	1.479	-	-	0.09	0.051	0.075
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3499.98	16.98	18.70	1.486	-	-	0.14	0.125	0.186
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3499.98	16.98	18.70	1.486	-	-	-0.08	0.226	0.336
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3499.98	16.98	18.70	1.486	-	-	-0.07	0.197	0.293
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3499.98	16.98	18.70	1.486	-	-	0.03	0.049	0.073
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	650000	3750	17.33	18.70	1.371	-	-	0.11	0.162	0.222
59	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	650000	3750	17.33	18.70	1.371	-	-	0.15	0.332	0.455
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	650000	3750	17.33	18.70	1.371	-	-	0.11	0.252	0.345
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	650000	3750	17.33	18.70	1.371	-	-	0.09	0.061	0.084
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	650000	3750	17.31	18.70	1.377	-	-	0.02	0.157	0.216
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	650000	3750	17.31	18.70	1.377	-	-	0.11	0.303	0.417
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	650000	3750	17.31	18.70	1.377	-	-	0.03	0.246	0.339
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	650000	3750	17.31	18.70	1.377	-	-	0.07	0.057	0.079
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	19.00	19.70	1.175	-	-	0.09	0.062	0.073
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	19.00	19.70	1.175	-	-	-0.09	0.074	0.087
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	19.00	19.70	1.175	-	-	0.10	0.048	0.056
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	19.00	19.70	1.175	-	-	0.09	0.141	0.166
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3499.98	18.98	19.70	1.180	-	-	-0.04	0.062	0.073
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3499.98	18.98	19.70	1.180	-	-	0.06	0.072	0.085
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3499.98	18.98	19.70	1.180	-	-	0.09	0.042	0.050
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3499.98	18.98	19.70	1.180	-	-	-0.01	0.123	0.145
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	650000	3750	19.25	19.70	1.109	-	-	-0.06	0.106	0.118
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	650000	3750	19.25	19.70	1.109	-	-	-0.01	0.135	0.150
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	650000	3750	19.25	19.70	1.109	-	-	0.07	0.067	0.074
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	650000	3750	19.25	19.70	1.109	-	-	-0.08	0.193	0.214
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	650000	3750	19.23	19.70	1.114	-	-	0.10	0.100	0.111
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	650000	3750	19.23	19.70	1.114	-	-	-0.09	0.121	0.135
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	650000	3750	19.23	19.70	1.114	-	-	0.01	0.059	0.066
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	650000	3750	19.23	19.70	1.114	-	-	0.06	0.172	0.192
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3499.98	15.18	16.70	1.419	-	-	0.14	0.129	0.183
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3499.98	15.18	16.70	1.419	-	-	-0.05	0.181	0.257
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3499.98	15.18	16.70	1.419	-	-	0.12	0.289	0.410
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3499.98	15.15	16.70	1.429	-	-	0.08	0.117	0.167
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3499.98	15.15	16.70	1.429	-	-	0.08	0.167	0.239
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3499.98	15.15	16.70	1.429	-	-	0.12	0.275	0.393
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	650000	3750	15.60	16.70	1.288	-	-	0.01	0.118	0.152
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	650000	3750	15.60	16.70	1.288	-	-	-0.02	0.145	0.187
	FR1 n78 Part 27O PC2	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	650000	3750	15.60	16.70	1.288	-	-	-0.16	0.214	0.276
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	650000	3750	15.58	16.70	1.294	-	-	-0.06	0.110	0.142
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	650000	3750	15.58	16.70	1.294	-	-	0.00	0.137	0.177
	FR1 n78 Part 27O PC2	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	650000	3750	15.58	16.70	1.294	-	-	0.05	0.201	0.260

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WIFI/BT																
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 12	Standalone&WWAN+BT&2.4G+BT&5/6G+BT	39	2441	18.90	19.00	1.023	76.97	1.299	0.06	0.225	0.299
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 12	Standalone&WWAN+BT&2.4G+BT&5/6G+BT	39	2441	18.90	19.00	1.023	76.97	1.299	-0.05	0.298	0.396
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 12	Standalone&WWAN+BT&2.4G+BT&5/6G+BT	39	2441	18.90	19.00	1.023	76.97	1.299	0.11	0.055	0.073
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Standalone&WWAN+BT&2.4G+BT&5/6G+BT	39	2441	18.90	19.00	1.023	76.97	1.299	0.00	0.693	0.921



FCC SAR Test Report

Report No. : FA521816

60	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Standalone&WWAN+BT&2.4G+BT&5/6G+BT	0	2402	18.70	19.00	1.072	76.97	1.299	-0.10	0.664	0.924
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Standalone&WWAN+BT&2.4G+BT&5/6G+BT	78	2480	16.80	18.00	1.318	76.97	1.299	0.10	0.416	0.712
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	14.90	15.00	1.023	76.97	1.299	0.11	0.102	0.136
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	14.90	15.00	1.023	76.97	1.299	-0.14	0.121	0.161
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	14.90	15.00	1.023	76.97	1.299	-0.15	0.024	0.032
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	2.4G+5/6G+BT&WWAN+2.4G+BT&WWAN+5/6G+BT&WWAN+2.4G+5/6G+BT	39	2441	14.90	15.00	1.023	76.97	1.299	-0.04	0.275	0.366
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	20.85	21.50	1.161	100	1.000	-0.01	0.278	0.323
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	20.85	21.50	1.161	100	1.000	0.08	0.351	0.408
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	20.85	21.50	1.161	100	1.000	0.01	0.048	0.056
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	20.85	21.50	1.161	100	1.000	0.06	0.315	0.366
61	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 12+7	Standalone&2.4G+5G/6G	6	2437	20.85	21.50	1.161	100	1.000	-0.16	0.636	0.739
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT&2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	18.39	19.00	1.152	100	1.000	0.07	0.161	0.185
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT&2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	18.39	19.00	1.152	100	1.000	0.01	0.201	0.232
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT&2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	18.39	19.00	1.152	100	1.000	-0.04	0.029	0.033
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT&2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	18.39	19.00	1.152	100	1.000	0.03	0.177	0.204
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 12+7	2.4G+BT&2.4G+5G/6G+BT&2.4G+WWAN&2.4G+WWAN+5G/6G	6	2437	18.39	19.00	1.152	100	1.000	-0.16	0.362	0.417
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 12+7	2.4G+WWAN+BT	6	2437	17.35	18.00	1.163	100	1.000	0.10	0.126	0.147
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 12+7	2.4G+WWAN+BT	6	2437	17.35	18.00	1.163	100	1.000	0.13	0.161	0.187
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 12+7	2.4G+WWAN+BT	6	2437	17.35	18.00	1.163	100	1.000	-0.07	0.022	0.026
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	2.4G+WWAN+BT	6	2437	17.35	18.00	1.163	100	1.000	0.02	0.143	0.166
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 12+7	2.4G+WWAN+BT	6	2437	17.35	18.00	1.163	100	1.000	0.03	0.288	0.335
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	16.84	17.50	1.164	100	1.000	-0.11	0.112	0.130
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	16.84	17.50	1.164	100	1.000	0.08	0.143	0.166
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	16.84	17.50	1.164	100	1.000	0.11	0.019	0.022
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	16.84	17.50	1.164	100	1.000	0.04	0.128	0.149
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 12+7	2.4G+WWAN+5G/6G+BT	6	2437	16.84	17.50	1.164	100	1.000	-0.01	0.255	0.297
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	36	5180	17.78	19.50	1.486	96.98	1.031	-0.16	0.122	0.187
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	36	5180	17.78	19.50	1.486	96.98	1.031	-0.10	0.292	0.447
62	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	36	5180	17.78	19.50	1.486	96.98	1.031	0.06	0.339	0.519
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT	36	5180	17.78	19.50	1.486	96.98	1.031	0.08	0.234	0.358
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 9+8	5G/6G+WWAN&2.4G+WWAN+5G/6G	36	5180	17.45	19.00	1.429	96.98	1.031	-0.08	0.110	0.162
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 9+8	5G/6G+WWAN&2.4G+WWAN+5G/6G	36	5180	17.45	19.00	1.429	96.98	1.031	-0.13	0.268	0.395
	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 9+8	5G/6G+WWAN&2.4G+WWAN+5G/6G	36	5180	17.45	19.00	1.429	96.98	1.031	0.15	0.311	0.458
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 9+8	5G/6G+WWAN&2.4G+WWAN+5G/6G	36	5180	17.45	19.00	1.429	96.98	1.031	0.00	0.218	0.321
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 9+8	5G/6G+WWAN+BT&2.4G+WWAN+5G/6G+BT	46	5230	16.74	18.00	1.337	93.87	1.065	-0.10	0.087	0.124
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 9+8	5G/6G+WWAN+BT&2.4G+WWAN+5G/6G+BT	46	5230	16.74	18.00	1.337	93.87	1.065	-0.04	0.186	0.265
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 9+8	5G/6G+WWAN+BT&2.4G+WWAN+5G/6G+BT	46	5230	16.74	18.00	1.337	93.87	1.065	0.04	0.213	0.303
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 9+8	5G/6G+WWAN+BT&2.4G+WWAN+5G/6G+BT	46	5230	16.74	18.00	1.337	93.87	1.065	0.00	0.160	0.228
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT&5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G	151	5755	16.52	17.00	1.117	93.87	1.065	0.06	0.111	0.132
	WLAN5.8GHz	802.11n-HT40 MCS0	Back	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT&5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G	151	5755	16.52	17.00	1.117	93.87	1.065	0.08	0.158	0.188
	WLAN5.8GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT&5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G	151	5755	16.52	17.00	1.117	93.87	1.065	0.02	0.176	0.209
63	WLAN5.8GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 9+8	Standalone&2.4G+5G/6G&5G/6G+BT&2.4G+5G/6G+BT&5G/6G+WWAN&5G/6G+WWAN+BT&2.4G+WWAN+5G/6G	151	5755	16.52	17.00	1.117	93.87	1.065	-0.15	0.216	0.257
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+8	2.4G+WWAN+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	0.15	0.081	0.108
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+8	2.4G+WWAN+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	-0.13	0.113	0.151
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+8	2.4G+WWAN+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	-0.08	0.143	0.191
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+8	2.4G+WWAN+5G/6G+BT	155	5775	15.31	16.00	1.173	87.99	1.136	0.01	0.158	0.211



15.3 Body Worn Accessory SAR

Plo t No.	Band	BW (MHz)	Modulatio n	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)	Report ed 1g SAR (W/kg)
750 MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	23095	707.5	21.90	22.80	1.230	-	-	0.06	0.206	0.253
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	23095	707.5	21.90	22.80	1.230	-	-	0.14	0.217	0.267
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	ECI 3	23095	707.5	21.76	22.80	1.271	-	-	-0.03	0.198	0.252
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	ECI 3	23095	707.5	21.76	22.80	1.271	-	-	-0.15	0.205	0.260
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	23095	707.5	22.88	23.80	1.236	-	-	-0.05	0.197	0.243
64	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	23095	707.5	22.88	23.80	1.236	-	-	-0.11	0.270	0.334
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	ECI 3	23095	707.5	22.33	23.30	1.250	-	-	0.11	0.176	0.220
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	ECI 3	23095	707.5	22.33	23.30	1.250	-	-	-0.08	0.239	0.299
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	23230	782	22.32	23.30	1.253	-	-	-0.05	0.173	0.217
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	23230	782	22.32	23.30	1.253	-	-	0.11	0.204	0.256
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 0	ECI 3	23230	782	21.88	22.80	1.236	-	-	0.16	0.154	0.190
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 0	ECI 3	23230	782	21.88	22.80	1.236	-	-	0.03	0.184	0.227
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	23230	782	22.88	23.80	1.236	-	-	-0.09	0.166	0.205
65	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	23230	782	22.88	23.80	1.236	-	-	-0.12	0.215	0.266
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 1	ECI 3	23230	782	22.53	23.30	1.194	-	-	0.01	0.142	0.170
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 1	ECI 3	23230	782	22.53	23.30	1.194	-	-	-0.04	0.184	0.220
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	ECI 3	141500	707.5	20.12	21.80	1.472	-	-	-0.02	0.149	0.219
67	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	ECI 3	141500	707.5	20.12	21.80	1.472	-	-	0.03	0.172	0.253
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	15mm	Ant 0	ECI 3	141500	707.5	20.10	21.80	1.479	-	-	-0.02	0.135	0.200
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	15mm	Ant 0	ECI 3	141500	707.5	20.10	21.80	1.479	-	-	-0.16	0.163	0.241
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	ECI 3	141500	707.5	20.80	22.20	1.380	-	-	-0.13	0.125	0.173
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	ECI 3	141500	707.5	20.80	22.20	1.380	-	-	0.07	0.176	0.243
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	15mm	Ant 1	ECI 3	141500	707.5	20.78	22.20	1.387	-	-	-0.13	0.120	0.166
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	15mm	Ant 1	ECI 3	141500	707.5	20.78	22.20	1.387	-	-	0.09	0.162	0.225
835 MHz																				
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	15mm	Ant 0	ECI 3	189	836.4	27.53	28.60	1.279	-	-	-0.11	0.209	0.267
68	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	15mm	Ant 0	ECI 3	189	836.4	27.53	28.60	1.279	-	-	-0.05	0.291	0.372
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	15mm	Ant 1	ECI 3	189	836.4	28.13	29.50	1.371	-	-	0.04	0.125	0.171
	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	15mm	Ant 1	ECI 3	189	836.4	28.13	29.50	1.371	-	-	0.03	0.135	0.185
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	ECI 3	4182	836.4	22.40	22.90	1.122	-	-	-0.02	0.092	0.103
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	ECI 3	4182	836.4	22.40	22.90	1.122	-	-	0.07	0.100	0.112
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	ECI 3	4182	836.4	24.28	24.80	1.127	-	-	0.11	0.190	0.214
69	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	ECI 3	4182	836.4	24.28	24.80	1.127	-	-	0.1	0.224	0.252
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	26865	831.5	22.20	23.00	1.202	-	-	0.09	0.228	0.274
70	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	26865	831.5	22.20	23.00	1.202	-	-	-0.12	0.265	0.319
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	ECI 3	26865	831.5	22.19	23.00	1.205	-	-	0.02	0.219	0.264
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	ECI 3	26865	831.5	22.19	23.00	1.205	-	-	0.15	0.249	0.300
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	26865	831.5	24.20	25.00	1.202	-	-	0.01	0.178	0.214
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	26865	831.5	24.20	25.00	1.202	-	-	0.04	0.190	0.228
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	ECI 3	26865	831.5	23.67	24.50	1.211	-	-	0.01	0.156	0.189
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	ECI 3	26865	831.5	23.67	24.50	1.211	-	-	0.09	0.168	0.203
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	ECI 3	166300	831.5	22.12	23.30	1.312	-	-	-0.15	0.221	0.290
71	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	ECI 3	166300	831.5	22.12	23.30	1.312	-	-	-0.15	0.253	0.332
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	ECI 3	166300	831.5	22.11	23.30	1.315	-	-	0.16	0.193	0.254
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	ECI 3	166300	831.5	22.11	23.30	1.315	-	-	-0.16	0.234	0.308
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	ECI 3	166300	831.5	24.51	25.70	1.315	-	-	-0.02	0.135	0.178
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	ECI 3	166300	831.5	24.51	25.70	1.315	-	-	-0.1	0.200	0.263
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	ECI 3	166300	831.5	24.45	25.70	1.334	-	-	-0.03	0.153	0.204
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	ECI 3	166300	831.5	24.45	25.70	1.334	-	-	0.07	0.219	0.292
1750 MHz																				



FCC SAR Test Report

Report No. : FA521816

	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	ECI 3	1413	1732.6	20.20	20.80	1.148	-	-	-0.15	0.188	0.216
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	ECI 3	1413	1732.6	20.20	20.80	1.148	-	-	0.05	0.216	0.248
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 6	ECI 3	1413	1732.6	19.98	20.40	1.102	-	-	0.05	0.195	0.215
75	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 6	ECI 3	1413	1732.6	19.98	20.40	1.102	-	-	0.06	0.290	0.319
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 7	ECI 3	1413	1732.6	19.42	20.10	1.169	-	-	0.14	0.078	0.091
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 7	ECI 3	1413	1732.6	19.42	20.10	1.169	-	-	0.07	0.094	0.110
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 11	ECI 3	1413	1732.6	20.22	20.80	1.143	-	-	-0.09	0.073	0.083
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 11	ECI 3	1413	1732.6	20.22	20.80	1.143	-	-	-0.05	0.103	0.118
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	20175	1732.5	18.80	19.30	1.122	-	-	0.1	0.071	0.080
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	20175	1732.5	18.80	19.30	1.122	-	-	0.01	0.082	0.092
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	20175	1732.5	18.78	19.30	1.127	-	-	-0.13	0.066	0.074
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	20175	1732.5	18.78	19.30	1.127	-	-	0.02	0.078	0.088
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	20175	1732.5	22.20	23.00	1.202	-	-	-0.09	0.110	0.132
76	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	20175	1732.5	22.20	23.00	1.202	-	-	0.11	0.134	0.161
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	20175	1732.5	22.18	23.00	1.208	-	-	0.04	0.106	0.128
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	20175	1732.5	22.18	23.00	1.208	-	-	-0.03	0.125	0.151
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	132322	1745	20.24	21.00	1.191	-	-	-0.12	0.182	0.217
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	132322	1745	20.24	21.00	1.191	-	-	0.03	0.206	0.245
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	132322	1745	20.20	21.00	1.202	-	-	-0.06	0.174	0.209
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	132322	1745	20.20	21.00	1.202	-	-	-0.11	0.199	0.239
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	132322	1745	20.52	21.10	1.143	-	-	0.03	0.209	0.239
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	132322	1745	20.52	21.10	1.143	-	-	-0.14	0.264	0.302
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	132322	1745	20.50	21.10	1.148	-	-	-0.02	0.215	0.247
77	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	132322	1745	20.50	21.10	1.148	-	-	-0.13	0.312	0.358
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	132322	1745	19.05	20.30	1.334	-	-	-0.09	0.085	0.113
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	132322	1745	19.05	20.30	1.334	-	-	-0.1	0.102	0.136
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	132322	1745	19.03	20.30	1.340	-	-	-0.02	0.082	0.110
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	132322	1745	19.03	20.30	1.340	-	-	0.09	0.099	0.133
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	132322	1745	21.20	21.90	1.175	-	-	0.14	0.096	0.113
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	132322	1745	21.20	21.90	1.175	-	-	-0.1	0.131	0.154
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	132322	1745	21.17	21.90	1.183	-	-	0.01	0.092	0.109
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	132322	1745	21.17	21.90	1.183	-	-	0.01	0.124	0.147
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	ECI 3	349000	1745	20.70	21.90	1.318	-	-	-0.11	0.202	0.266
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	ECI 3	349000	1745	20.70	21.90	1.318	-	-	-0.04	0.214	0.282
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	ECI 3	349000	1745	20.66	21.90	1.330	-	-	-0.13	0.189	0.251
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	ECI 3	349000	1745	20.66	21.90	1.330	-	-	-0.11	0.207	0.275
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	ECI 3	349000	1745	20.12	20.60	1.117	-	-	0.03	0.203	0.227
78	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	ECI 3	349000	1745	20.12	20.60	1.117	-	-	-0.05	0.302	0.337
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 6	ECI 3	349000	1745	20.10	20.60	1.122	-	-	-0.09	0.186	0.209
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 6	ECI 3	349000	1745	20.10	20.60	1.122	-	-	-0.16	0.275	0.309
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 7	ECI 3	349000	1745	19.52	21.00	1.406	-	-	-0.14	0.084	0.118
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 7	ECI 3	349000	1745	19.52	21.00	1.406	-	-	-0.09	0.109	0.153
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 7	ECI 3	349000	1745	19.51	21.00	1.409	-	-	0.07	0.081	0.114
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 7	ECI 3	349000	1745	19.51	21.00	1.409	-	-	-0.12	0.103	0.145
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 3	349000	1745	21.30	22.30	1.259	-	-	0.14	0.090	0.113
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 3	349000	1745	21.30	22.30	1.259	-	-	-0.06	0.126	0.159
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 11	ECI 3	349000	1745	21.28	22.30	1.265	-	-	0.12	0.088	0.111
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 11	ECI 3	349000	1745	21.28	22.30	1.265	-	-	-0.01	0.124	0.157
1900 MHz																				
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	15mm	Ant 5	ECI 3	661	1880	27.42	28.50	1.282	-	-	0.11	0.200	0.256
79	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	15mm	Ant 5	ECI 3	661	1880	27.42	28.50	1.282	-	-	0.16	0.283	0.363
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	15mm	Ant 6	ECI 3	661	1880	26.95	27.70	1.189	-	-	-0.01	0.150	0.178
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	15mm	Ant 6	ECI 3	661	1880	26.95	27.70	1.189	-	-	0.12	0.210	0.250
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	ECI 3	9400	1880	19.05	19.80	1.189	-	-	-0.13	0.125	0.149
80	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	ECI 3	9400	1880	19.05	19.80	1.189	-	-	0.08	0.178	0.212
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 6	ECI 3	9400	1880	20.40	20.90	1.122	-	-	0.16	0.116	0.130



FCC SAR Test Report

Report No. : FA521816

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 6	ECI 3	9400	1880	20.40	20.90	1.122	-	-	0.09	0.155	0.174
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	18900	1880	19.15	19.80	1.161	-	-	0.07	0.151	0.175
81	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	18900	1880	19.15	19.80	1.161	-	-	0.1	0.201	0.233
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	18900	1880	19.13	19.80	1.167	-	-	0.16	0.142	0.166
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	18900	1880	19.13	19.80	1.167	-	-	0.05	0.177	0.207
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	18900	1880	20.25	20.90	1.161	-	-	-0.12	0.142	0.165
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	18900	1880	20.25	20.90	1.161	-	-	0.05	0.176	0.204
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	18900	1880	20.21	20.90	1.172	-	-	0.06	0.131	0.154
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	18900	1880	20.21	20.90	1.172	-	-	-0.01	0.168	0.197
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	18900	1880	17.11	18.40	1.346	-	-	0.06	0.055	0.074
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	18900	1880	17.11	18.40	1.346	-	-	0.12	0.068	0.091
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	18900	1880	16.96	18.40	1.393	-	-	0.11	0.053	0.074
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	18900	1880	16.96	18.40	1.393	-	-	0.07	0.062	0.086
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	18900	1880	20.11	20.70	1.146	-	-	0.02	0.117	0.134
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	18900	1880	20.11	20.70	1.146	-	-	0.1	0.141	0.162
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	18900	1880	20.08	20.70	1.153	-	-	0.07	0.112	0.129
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	18900	1880	20.08	20.70	1.153	-	-	0.09	0.133	0.153
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	ECI 3	376000	1880	19.90	21.20	1.349	-	-	0.07	0.190	0.256
82	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	ECI 3	376000	1880	19.90	21.20	1.349	-	-	0.07	0.240	0.324
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 5	ECI 3	376000	1880	19.89	21.20	1.352	-	-	0.16	0.171	0.231
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 5	ECI 3	376000	1880	19.89	21.20	1.352	-	-	-0.14	0.205	0.277
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	ECI 3	376000	1880	20.80	21.80	1.259	-	-	-0.12	0.151	0.190
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	ECI 3	376000	1880	20.80	21.80	1.259	-	-	0.02	0.193	0.243
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 6	ECI 3	376000	1880	20.78	21.80	1.265	-	-	0.11	0.144	0.182
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 6	ECI 3	376000	1880	20.78	21.80	1.265	-	-	-0.03	0.183	0.231
2600 MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	21100	2535	18.88	19.50	1.153	-	-	0.03	0.139	0.160
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	21100	2535	18.88	19.50	1.153	-	-	-0.08	0.182	0.210
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	21100 21298	2535 2554.8	18.82	19.50	1.169	-	-	0.05	0.156	0.182
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	21100	2535	18.84	19.50	1.164	-	-	0.02	0.135	0.157
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	21100	2535	18.84	19.50	1.164	-	-	-0.01	0.165	0.192
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	21100	2535	18.88	19.50	1.153	-	-	-0.04	0.128	0.148
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	21100	2535	18.88	19.50	1.153	-	-	-0.12	0.142	0.164
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	21100 21298	2535 2554.8	18.80	19.50	1.175	-	-	-0.08	0.130	0.153
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	21100	2535	18.85	19.50	1.161	-	-	0.12	0.121	0.141
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	21100	2535	18.85	19.50	1.161	-	-	0.04	0.129	0.150
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	21350	2560	20.00	21.00	1.259	-	-	0.09	0.155	0.195
83	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	21350	2560	20.00	21.00	1.259	-	-	0.16	0.231	0.291
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	21350 21152	2560 2540.2	19.96	21.00	1.271	-	-	-0.04	0.184	0.234
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	21350	2560	19.95	21.00	1.274	-	-	-0.13	0.142	0.181
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	21350	2560	19.95	21.00	1.274	-	-	-0.06	0.215	0.274
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	21100	2535	18.88	19.40	1.127	-	-	-0.04	0.112	0.126
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	21100	2535	18.88	19.40	1.127	-	-	-0.08	0.148	0.167
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	21100 21298	2535 2554.8	18.79	19.40	1.151	-	-	0.02	0.141	0.162
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	21100	2535	18.85	19.40	1.135	-	-	0.03	0.103	0.117
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	21100	2535	18.85	19.40	1.135	-	-	0.03	0.141	0.160
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	38000	2595	20.90	21.50	1.148	62.9	1.006	0.11	0.110	0.127
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	38000	2595	20.90	21.50	1.148	62.9	1.006	0.04	0.140	0.162
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	37901 38099	2585.1 2604.9	20.81	21.50	1.172	62.9	1.006	-0.05	0.132	0.156
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	38000	2595	20.85	21.50	1.161	62.9	1.006	0.02	0.105	0.123
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	38000	2595	20.85	21.50	1.161	62.9	1.006	0.03	0.132	0.154
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	38000	2595	19.90	20.40	1.122	62.9	1.006	0.14	0.089	0.100
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	38000	2595	19.90	20.40	1.122	62.9	1.006	0.04	0.117	0.132
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	37901 38099	2585.1 2604.9	19.76	20.40	1.159	62.9	1.006	0.07	0.108	0.126



FCC SAR Test Report

Report No. : FA521816

	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	38000	2595	19.89	20.40	1.125	62.9	1.006	-0.09	0.081	0.092
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	38000	2595	19.89	20.40	1.125	62.9	1.006	0.11	0.112	0.127
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	38000	2595	20.48	21.00	1.127	62.9	1.006	0.02	0.099	0.112
84	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	38000	2595	20.48	21.00	1.127	62.9	1.006	-0.1	0.165	0.187
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	37901 38099	2585.1 2604.9	20.40	21.00	1.148	62.9	1.006	-0.03	0.153	0.177
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	38000	2595	20.00	20.50	1.122	62.9	1.006	0.01	0.092	0.104
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	38000	2595	20.00	20.50	1.122	62.9	1.006	-0.06	0.152	0.172
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	38000	2595	20.00	20.40	1.096	62.9	1.006	0.1	0.091	0.100
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	38000	2595	20.00	20.40	1.096	62.9	1.006	0.02	0.130	0.143
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	37901 38099	2585.1 2604.9	19.96	20.40	1.107	62.9	1.006	0.01	0.115	0.128
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	38000	2595	19.95	20.40	1.109	62.9	1.006	-0.01	0.088	0.098
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	38000	2595	19.95	20.40	1.109	62.9	1.006	-0.12	0.120	0.134
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	40620	2593	22.32	22.80	1.117	62.9	1.006	-0.12	0.159	0.179
85	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	40620	2593	22.32	22.80	1.117	62.9	1.006	-0.04	0.184	0.207
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	40620	2593	23.45	24.30	1.216	42.9	1.009	0.06	0.166	0.204
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	40620	2593	21.85	22.30	1.109	62.9	1.006	0.14	0.156	0.174
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	40620	2593	21.85	22.30	1.109	62.9	1.006	0.07	0.177	0.198
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	40620	2593	20.55	21.30	1.189	62.9	1.006	-0.04	0.097	0.116
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	40620	2593	20.55	21.30	1.189	62.9	1.006	-0.13	0.125	0.149
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	40620	2593	21.48	22.30	1.208	42.9	1.009	-0.06	0.101	0.123
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	40620	2593	20.53	21.30	1.194	62.9	1.006	0.12	0.091	0.109
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	40620	2593	20.53	21.30	1.194	62.9	1.006	0.06	0.114	0.137
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	40620	2593	18.10	18.80	1.175	62.9	1.006	0.13	0.062	0.073
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	40620	2593	18.10	18.80	1.175	62.9	1.006	-0.15	0.085	0.100
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	40620	2593	21.20	21.80	1.148	42.9	1.009	-0.1	0.109	0.126
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	40620	2593	17.56	18.30	1.186	62.9	1.006	0.01	0.057	0.068
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	40620	2593	17.56	18.30	1.186	62.9	1.006	-0.05	0.078	0.093
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	40620	2549.5	20.20	20.70	1.122	62.9	1.006	0.09	0.043	0.049
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	40620	2549.5	20.20	20.70	1.122	62.9	1.006	-0.14	0.055	0.062
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	40620	2549.5	21.00	21.70	1.175	42.9	1.009	-0.16	0.046	0.055
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	40620	2549.5	20.19	20.70	1.125	62.9	1.006	-0.13	0.038	0.043
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	40620	2549.5	20.19	20.70	1.125	62.9	1.006	-0.02	0.055	0.062
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	ECI 3	507000	2535	18.75	19.90	1.303	-	-	0.14	0.150	0.195
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	ECI 3	507000	2535	18.75	19.90	1.303	-	-	-0.05	0.188	0.245
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	ECI 3	507000	2535	18.73	19.90	1.309	-	-	0.09	0.158	0.207
86	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	ECI 3	507000	2535	18.73	19.90	1.309	-	-	0.01	0.207	0.271
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	ECI 3	507000	2535	18.70	19.90	1.318	-	-	0.04	0.139	0.183
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	ECI 3	507000	2535	18.70	19.90	1.318	-	-	0.08	0.162	0.214
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 6	ECI 3	507000	2535	18.68	19.90	1.324	-	-	0.09	0.135	0.179
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 6	ECI 3	507000	2535	18.68	19.90	1.324	-	-	-0.05	0.159	0.211
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 7	ECI 3	507000	2535	20.18	21.40	1.324	-	-	-0.05	0.142	0.188
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 7	ECI 3	507000	2535	20.18	21.40	1.324	-	-	0.04	0.187	0.248
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 7	ECI 3	507000	2535	20.03	21.40	1.371	-	-	0.09	0.132	0.181
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 7	ECI 3	507000	2535	20.03	21.40	1.371	-	-	-0.02	0.176	0.242
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 3	507000	2535	18.50	19.30	1.202	-	-	-0.05	0.094	0.113
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 3	507000	2535	18.50	19.30	1.202	-	-	0.01	0.145	0.174
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 11	ECI 3	507000	2535	18.47	19.30	1.211	-	-	-0.05	0.092	0.111
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 11	ECI 3	507000	2535	18.47	19.30	1.211	-	-	-0.09	0.135	0.163
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	ECI 3	519000	2595	18.66	19.90	1.330	-	-	-0.01	0.136	0.181
87	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	ECI 3	519000	2595	18.66	19.90	1.330	-	-	-0.06	0.200	0.266
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 5	ECI 3	519000	2595	18.63	19.90	1.340	-	-	-0.03	0.131	0.175
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 5	ECI 3	519000	2595	18.63	19.90	1.340	-	-	0.12	0.185	0.248
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	519000	2595	19.30	20.30	1.259	-	-	-0.15	0.131	0.165
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	519000	2595	19.30	20.30	1.259	-	-	-0.13	0.163	0.205
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 6	ECI 3	519000	2595	19.28	20.30	1.265	-	-	-0.12	0.128	0.162



FCC SAR Test Report

Report No. : FA521816

	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 6	ECI 3	519000	2595	19.28	20.30	1.265	-	-	0.04	0.155	0.196
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	ECI 3	519000	2595	18.30	19.60	1.349	-	-	-0.1	0.111	0.150
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	ECI 3	519000	2595	18.30	19.60	1.349	-	-	-0.11	0.183	0.247
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 7	ECI 3	519000	2595	18.24	19.60	1.368	-	-	-0.1	0.104	0.142
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 7	ECI 3	519000	2595	18.24	19.60	1.368	-	-	0.03	0.166	0.227
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 3	519000	2595	18.83	19.80	1.250	-	-	0.07	0.051	0.064
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 3	519000	2595	18.83	19.80	1.250	-	-	0.16	0.073	0.091
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 11	ECI 3	519000	2595	18.81	19.80	1.256	-	-	0.07	0.049	0.062
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 11	ECI 3	519000	2595	18.81	19.80	1.256	-	-	-0.08	0.071	0.089
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	ECI 3	518598	2592.99	19.13	20.20	1.279	-	-	-0.08	0.152	0.194
88	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	ECI 3	518598	2592.99	19.13	20.20	1.279	-	-	-0.05	0.214	0.274
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	ECI 3	518598	2592.99	19.11	20.20	1.285	-	-	0.15	0.145	0.186
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	ECI 3	518598	2592.99	19.11	20.20	1.285	-	-	-0.03	0.183	0.235
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	518598	2592.99	17.69	18.70	1.262	-	-	0.02	0.092	0.116
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	518598	2592.99	17.69	18.70	1.262	-	-	0.12	0.123	0.155
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	518598	2592.99	17.68	18.70	1.265	-	-	0.16	0.090	0.114
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	518598	2592.99	17.68	18.70	1.265	-	-	0.08	0.111	0.140
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	ECI 3	518598	2592.99	18.15	19.20	1.274	-	-	0.05	0.105	0.134
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	ECI 3	518598	2592.99	18.15	19.20	1.274	-	-	0.16	0.144	0.183
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	ECI 3	518598	2592.99	18.13	19.20	1.279	-	-	0.09	0.098	0.125
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	ECI 3	518598	2592.99	18.13	19.20	1.279	-	-	0.12	0.132	0.169
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 3	518598	2592.99	16.88	17.60	1.180	-	-	0.05	0.081	0.096
	FR1 n41 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 3	518598	2592.99	16.88	17.60	1.180	-	-	-0.06	0.109	0.129
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 3	518598	2592.99	16.85	17.60	1.189	-	-	0.08	0.070	0.083
	FR1 n41 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 3	518598	2592.99	16.85	17.60	1.189	-	-	0.07	0.100	0.119
3-4GHz																				
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	18.38	19.20	1.208	-	-	-0.09	0.100	0.121
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	18.38	19.20	1.208	-	-	-0.12	0.170	0.205
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	18.37	19.20	1.211	-	-	-0.14	0.107	0.130
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	18.37	19.20	1.211	-	-	-0.07	0.181	0.219
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	656000	3840	18.20	19.20	1.259	-	-	0.08	0.123	0.155
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	656000	3840	18.20	19.20	1.259	-	-	-0.09	0.159	0.200
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	656000	3840	18.16	19.20	1.271	-	-	-0.16	0.113	0.144
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	656000	3840	18.16	19.20	1.271	-	-	0.03	0.146	0.186
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	18.60	20.20	1.445	-	-	-0.01	0.086	0.124
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	18.60	20.20	1.445	-	-	-0.01	0.152	0.220
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	18.57	20.20	1.455	-	-	-0.08	0.094	0.137
89	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	18.57	20.20	1.455	-	-	-0.08	0.159	0.231
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	656000	3840	18.63	20.20	1.435	-	-	-0.02	0.075	0.108
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	656000	3840	18.63	20.20	1.435	-	-	-0.01	0.153	0.220
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	656000	3840	18.61	20.20	1.442	-	-	-0.16	0.074	0.107
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	656000	3840	18.61	20.20	1.442	-	-	-0.11	0.139	0.200
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	18.80	20.20	1.380	-	-	-0.03	0.035	0.048
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	18.80	20.20	1.380	-	-	0.06	0.048	0.066
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	18.72	20.20	1.406	-	-	0.01	0.032	0.045
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	18.72	20.20	1.406	-	-	0.08	0.042	0.059
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	656000	3840	18.99	20.20	1.321	-	-	-0.13	0.054	0.071
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	656000	3840	18.99	20.20	1.321	-	-	0.1	0.062	0.082
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	656000	3840	18.98	20.20	1.324	-	-	-0.03	0.050	0.066
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	656000	3840	18.98	20.20	1.324	-	-	0.1	0.056	0.074
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	18.20	19.70	1.413	-	-	-0.02	0.121	0.171
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	18.20	19.70	1.413	-	-	-0.05	0.145	0.205
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	18.15	19.70	1.429	-	-	-0.08	0.115	0.164
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	18.15	19.70	1.429	-	-	-0.08	0.133	0.190
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	656000	3840	18.18	19.70	1.419	-	-	0	0.089	0.126
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	656000	3840	18.18	19.70	1.419	-	-	-0.06	0.121	0.172



FCC SAR Test Report

Report No. : FA521816

	FR1 n77 Part 270	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	656000	3840	18.16	19.70	1.426	-	-	0.11	0.079	0.113
	FR1 n77 Part 270	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	656000	3840	18.16	19.70	1.426	-	-	-0.05	0.111	0.158
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	18.60	19.70	1.288	-	-	-0.06	0.080	0.103
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	18.60	19.70	1.288	-	-	0.03	0.190	0.245
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	18.58	19.70	1.294	-	-	-0.14	0.086	0.111
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	18.58	19.70	1.294	-	-	0.12	0.202	0.261
	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	650000	3750	19.06	19.70	1.159	-	-	-0.15	0.075	0.087
	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	650000	3750	19.06	19.70	1.159	-	-	-0.01	0.190	0.220
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	650000	3750	19.02	19.70	1.169	-	-	-0.04	0.072	0.084
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	650000	3750	19.02	19.70	1.169	-	-	-0.1	0.183	0.214
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	18.88	20.70	1.521	-	-	0.13	0.109	0.166
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	18.88	20.70	1.521	-	-	0.16	0.251	0.382
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	18.85	20.70	1.531	-	-	-0.13	0.124	0.190
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	18.85	20.70	1.531	-	-	-0.14	0.275	0.421
	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	650000	3750	19.40	20.70	1.349	-	-	-0.14	0.125	0.169
90	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	650000	3750	19.40	20.70	1.349	-	-	0.14	0.336	0.453
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	650000	3750	19.36	20.70	1.361	-	-	0.04	0.111	0.151
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	650000	3750	19.36	20.70	1.361	-	-	0.16	0.295	0.402
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	20.90	21.70	1.202	-	-	0.13	0.052	0.063
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	20.90	21.70	1.202	-	-	0.06	0.062	0.075
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	20.88	21.70	1.208	-	-	0.12	0.047	0.057
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	20.88	21.70	1.208	-	-	-0.09	0.054	0.065
	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	650000	3750	21.27	21.70	1.104	-	-	0.06	0.073	0.081
	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	650000	3750	21.27	21.70	1.104	-	-	0.15	0.082	0.091
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	650000	3750	21.25	21.70	1.109	-	-	-0.08	0.071	0.079
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	650000	3750	21.25	21.70	1.109	-	-	0.07	0.076	0.084
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	16.60	18.20	1.445	-	-	-0.02	0.083	0.120
	FR1 n78 Part 27Q PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	16.60	18.20	1.445	-	-	0.05	0.102	0.147
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	16.58	18.20	1.452	-	-	-0.03	0.077	0.112
	FR1 n78 Part 27Q PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	16.58	18.20	1.452	-	-	0.12	0.099	0.144
	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	650000	3750	17.12	18.20	1.282	-	-	0.08	0.063	0.081
	FR1 n78 Part 270 PC2	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	650000	3750	17.12	18.20	1.282	-	-	0.05	0.084	0.108
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	650000	3750	17.09	18.20	1.291	-	-	0.03	0.056	0.072
	FR1 n78 Part 270 PC2	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	650000	3750	17.09	18.20	1.291	-	-	0.07	0.078	0.101

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)	Measure d 1g SAR (W/kg)	Reporte d 1g SAR (W/kg)
WIFI/BT																
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 12	Standalone/Simultaneous	39	2441	18.90	19.00	1.023	76.97	1.299	-0.02	0.129	0.171
91	Bluetooth	DH5 1Mbps	Back	15mm	Ant 12	Standalone/Simultaneous	39	2441	18.90	19.00	1.023	76.97	1.299	0.02	0.164	0.218
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 12+7	Standalone/Simultaneous	6	2437	20.85	21.50	1.161	100	1.000	0.09	0.122	0.142
92	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Standalone/Simultaneous	6	2437	20.85	21.50	1.161	100	1.000	-0.05	0.212	0.246
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	15mm	Ant 9+8	Standalone/Simultaneous	54	5270	18.45	19.50	1.274	93.87	1.065	0.07	0.102	0.138
93	WLAN5.3GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9+8	Standalone/Simultaneous	54	5270	18.45	19.50	1.274	93.87	1.065	-0.16	0.136	0.185
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 9+8	Standalone/Simultaneous	110	5550	18.42	18.50	1.020	93.87	1.065	0.07	0.046	0.050
94	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9+8	Standalone/Simultaneous	110	5550	18.42	18.50	1.020	93.87	1.065	0.04	0.096	0.104
	WLAN5.8GHz	802.11n-HT40 MCS0	Front	15mm	Ant 9+8	Standalone/Simultaneous	151	5755	16.52	17.00	1.117	93.87	1.065	-0.15	0.069	0.082
95	WLAN5.8GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9+8	Standalone/Simultaneous	151	5755	16.52	17.00	1.117	93.87	1.065	0.02	0.078	0.093

15.4 Product specific 10g SAR

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WIFI																
	WLAN2.4GHz	802.11b 1Mbps	Front	0mm	Ant 12+7	Standalone/Simultaneous	6	2437	20.85	21.50	1.161	100	1.000	-0.06	1.130	1.312
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 12+7	Standalone/Simultaneous	6	2437	20.85	21.50	1.161	100	1.000	-0.05	0.804	0.934
96	WLAN2.4GHz	802.11b 1Mbps	Right Side	0mm	Ant 12+7	Standalone/Simultaneous	6	2437	20.85	21.50	1.161	100	1.000	-0.03	1.500	1.742
	WLAN2.4GHz	802.11b 1Mbps	Top Side	0mm	Ant 12+7	Standalone/Simultaneous	6	2437	20.85	21.50	1.161	100	1.000	-0.15	1.100	1.277
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 9+8	Standalone/Simultaneous	54	5270	18.45	19.50	1.274	93.87	1.065	-0.15	0.704	0.955
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 9+8	Standalone/Simultaneous	54	5270	18.45	19.50	1.274	93.87	1.065	-0.03	0.494	0.670
97	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 9+8	Standalone/Simultaneous	54	5270	18.45	19.50	1.274	93.87	1.065	-0.10	1.340	1.818
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 9+8	Standalone/Simultaneous	54	5270	18.45	19.50	1.274	93.87	1.065	-0.06	0.918	1.245
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 9+8	Standalone/Simultaneous	110	5550	18.42	18.50	1.020	93.87	1.065	-0.06	0.319	0.346
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 9+8	Standalone/Simultaneous	110	5550	18.42	18.50	1.020	93.87	1.065	0.04	0.276	0.300
98	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 9+8	Standalone/Simultaneous	110	5550	18.42	18.50	1.020	93.87	1.065	0.05	1.350	1.466
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 9+8	Standalone/Simultaneous	110	5550	18.42	18.50	1.020	93.87	1.065	0.01	0.851	0.924



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	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	349000	1745	20.32	21.30	1.253	-	-	-0.14	0.857	1	1.074
2nd	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	349000	1745	20.32	21.30	1.253	-	-	0.09	0.848	1.011	1.063
1st	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	18900	1880	18.09	18.70	1.151	-	-	0.13	1.010	1	1.162
2nd	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	18900	1880	18.09	18.70	1.151	-	-	0.04	0.994	1.016	1.144
1st	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	21100	2535	16.30	17.50	1.318	-	-	0.11	0.870	1	1.147
2nd	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	21100	2535	16.30	17.50	1.318	-	-	0.09	0.862	1.009	1.136
1st	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.38	16.20	1.208	-	-	-0.12	0.882	1	1.065
2nd	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3499.98	15.38	16.20	1.208	-	-	0.07	0.874	1.009	1.056
1st	Bluetooth	-	-	-	-	DH5 1Mbps	Left Tilted	0mm	Ant 12	Standalone	0	2402	17.70	18.00	1.072	76.97	1.299	0.16	0.800	1	1.114
2nd	Bluetooth	-	-	-	-	DH5 1Mbps	Left Tilted	0mm	Ant 12	Standalone	0	2402	17.70	18.00	1.072	76.97	1.299	0.07	0.793	1.009	1.104

General Note:

1. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is ≥ 0.8 W/kg.
2. 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.
3. The ratio is the difference in percentage between original and repeated *measured SAR*.
4. All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.



15.6 TDD LTE Linearity Data Analysis

General Note:

This device support Power Class 2 and Power Class 3 operations for LTE Band 41. The highest available duty cycle for Power Class 2 operation is 43.3% using UL-DL configuration 1. Per FCC Guidance based on the device behavior, all SAR tests were performed using Power Class 3. Power Class 2 is tested using the highest SAR test configuration in Power Class 3 for each LTE configuration and exposure condition combination, according to the highest time averaged power for all applicable uplink-downlink configurations in Power Class 2. When the reported SAR vs. output power is linearly scaled with < 10% discrepancy between power classes and all reported SAR are < 1.4 W/kg for 1g and < 3.5 W/kg for 10g, Separate SAR testing for Power Class 2 is not required.

Head			Hopspot		
LTE Band 41_Ant 5(HPUE)-Linearity Data for ECI 5			LTE Band 41_Ant 5(HPUE)-Linearity Data for ECI 8		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.80	25.80	Maximum Tune up Power (dBm)	22.80	24.30
Reported 1g SAR (W/kg)	0.142	0.176	Reported 1g SAR (W/kg)	0.983	0.925
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	120.62	164.62	Frame Averaged (mW)	120.62	116.54
Linearity SAR (W/kg)	0.194		Linearity SAR (W/kg)	0.950	
% deviation from expected linearity		-9.19%	% deviation from expected linearity		-2.61%
LTE Band 41_Ant 6(HPUE)-Linearity Data for ECI 5			LTE Band 41_Ant 6(HPUE)-Linearity Data for ECI 8		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.80	19.80	Maximum Tune up Power (dBm)	19.30	20.80
Reported 1g SAR (W/kg)	0.853	0.786	Reported 1g SAR (W/kg)	0.354	0.318
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	48.02	41.35	Frame Averaged (mW)	53.88	52.06
Linearity SAR (W/kg)	0.735		Linearity SAR (W/kg)	0.342	
% deviation from expected linearity		7.00%	% deviation from expected linearity		-7.03%
LTE Band 41_Ant 7(HPUE)-Linearity Data for ECI 5			LTE Band 41_Ant 7(HPUE)-Linearity Data for ECI 8		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.30	19.80	Maximum Tune up Power (dBm)	18.80	20.80
Reported 1g SAR (W/kg)	0.855	0.780	Reported 1g SAR (W/kg)	0.423	0.419
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	42.80	41.35	Frame Averaged (mW)	48.02	52.06
Linearity SAR (W/kg)	0.826		Linearity SAR (W/kg)	0.459	
% deviation from expected linearity		-5.58%	% deviation from expected linearity		-8.63%
LTE Band 41_Ant 11(HPUE)-Linearity Data for ECI 5			LTE Band 41_Ant 11(HPUE)-Linearity Data for ECI 8		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)		LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	16.20	17.70	Maximum Tune up Power (dBm)	18.70	20.20
Reported 1g SAR (W/kg)	0.183	0.165	Reported 1g SAR (W/kg)	0.161	0.146
Duty Cycle	63.30%	43.30%	Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	26.39	25.50	Frame Averaged (mW)	46.92	45.34
Linearity SAR (W/kg)	0.177		Linearity SAR (W/kg)	0.156	
% deviation from expected linearity		-6.69%	% deviation from expected linearity		-6.15%

Body-worn		
LTE Band 41_Ant 5(HPUE)-Linearity Data for ECI 3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.80	24.30
Reported 1g SAR (W/kg)	0.207	0.204
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	120.62	116.54
Linearity SAR (W/kg)	0.200	
% deviation from expected linearity		1.99%
LTE Band 41_Ant 6(HPUE)-Linearity Data for ECI 3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.30	22.30
Reported 1g SAR (W/kg)	0.149	0.123
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	85.39	73.53
Linearity SAR (W/kg)	0.128	
% deviation from expected linearity		-4.14%
LTE Band 41_Ant 7(HPUE)-Linearity Data for ECI 3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.80	21.80
Reported 1g SAR (W/kg)	0.100	0.126
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	48.02	65.54
Linearity SAR (W/kg)	0.136	
% deviation from expected linearity		-7.68%
LTE Band 41_Ant 11(HPUE)-Linearity Data for ECI 3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.70	21.70
Reported 1g SAR (W/kg)	0.062	0.055
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	74.37	64.05
Linearity SAR (W/kg)	0.053	
% deviation from expected linearity		3.01%

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
2.	WWAN + 5GHz WLAN	Yes	Yes	Yes	Yes
3.	WWAN + 6GHz WLAN	Yes	Yes		Yes
4.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
5.	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
6.	6GHz WLAN + Bluetooth	Yes	Yes		Yes
7.	2.4GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
8.	5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
9.	6GHz WLAN + 2.4GHz WLAN	Yes	Yes		Yes
10.	WWAN +5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
11.	WWAN +6GHz WLAN + Bluetooth	Yes	Yes		Yes
12.	WWAN +2.4GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
13.	WWAN +5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
14.	WWAN +6GHz WLAN + 2.4GHz WLAN	Yes	Yes		Yes
15.	5GHz WLAN + 2.4GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
16.	6GHz WLAN + 2.4GHz WLAN + Bluetooth	Yes	Yes		Yes
17.	WWAN +5GHz WLAN + 2.4GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
18.	WWAN +6GHz WLAN + 2.4GHz WLAN + Bluetooth	Yes	Yes		Yes
19.	WWAN + 2.4GHz WLAN+NFC				Yes
20.	WWAN + 5GHz WLAN+NFC				Yes
21.	WWAN + 6GHz WLAN+NFC				Yes
22.	WWAN + Bluetooth+NFC				Yes
23.	5GHz WLAN + Bluetooth+NFC				Yes
24.	6GHz WLAN + Bluetooth+NFC				Yes
25.	2.4GHz WLAN + Bluetooth+NFC				Yes
26.	5GHz WLAN + 2.4GHz WLAN+NFC				Yes
27.	6GHz WLAN + 2.4GHz WLAN+NFC				Yes
28.	WWAN +5GHz WLAN + Bluetooth+NFC				Yes
29.	WWAN +6GHz WLAN + Bluetooth+NFC				Yes
30.	WWAN +2.4GHz WLAN + Bluetooth+NFC				Yes
31.	WWAN +5GHz WLAN + 2.4GHz WLAN+NFC				Yes
32.	WWAN +6GHz WLAN + 2.4GHz WLAN+NFC				Yes
33.	5GHz WLAN + 2.4GHz WLAN + Bluetooth+NFC				Yes
34.	6GHz WLAN + 2.4GHz WLAN + Bluetooth+NFC				Yes
35.	WWAN +5GHz WLAN + 2.4GHz WLAN + Bluetooth+NFC				Yes
36.	WWAN +6GHz WLAN + 2.4GHz WLAN + Bluetooth+NFC				Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands and EN-DC combination.
3. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
4. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
5. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only). WLAN 6GHz has no hotspot function.
6. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO antenna mode and MIMO SAR can represent SISO SAR.
7. According to the EUT characteristic, WLAN 5GHz/6GHz and Bluetooth can transmit simultaneously.
8. According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously.

9. According to the EUT characteristic, WLAN and Bluetooth share the same antenna, and they cannot transmit simultaneously, WLAN2.4GHz chain 1 and Bluetooth chain 0 can transmit simultaneously
10. NFC can transmit simultaneously with other Radios in extremity exposure condition.
11. The maximum SAR summation is calculated based on the same configuration and test position.
12. All licensed modes share the same antenna part and cannot transmit simultaneously.
13. For co-located SAR with WWAN, always chose higher SAR among WLAN5GHz, WLAN 6GHz, it is the worst co-located analysis and can represent each WLAN5GHz and WLAN 6GHz bands.
14. MediaTek TA-SAR algorithm support to WWAN and WIFI/BT except NFC. And this device supports inter-band ULCA and EN-DC combination operations with component carriers from same antenna groups. TA-SAR algorithm controls the total RF exposure from both 4G and 5G NR and during inter-band ULCA active conditions to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In this Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using using one of 4G or 5G NR.
15. For standalone WWAN, always choose the highest SAR among all the selected WWAN bands within all antennas for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band.
16. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - ii) $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.

16.1 5G NR + LTE + WLAN + BT Sim-Tx analysis

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

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

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

$$\begin{aligned} x \cdot A + y \cdot B + m &\leq 1 \\ x + y &= g \leq 1 \\ g + m &\leq 1 \end{aligned}$$

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

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

$$x \cdot A + y \cdot B + m \leq 1.0 \quad (1)$$

$$x \cdot A + y \cdot B \leq x \cdot \max(A, B) + (g-x) \cdot \max(A, B) \leq \max(A, B)$$

$$x \cdot A + (g-x) \cdot B + m \leq \max(A, B) + m \leq 1.0 \quad (2)$$

If $A + m \leq 1.0$ and $B + m \leq 1.0$ can be proven, then " $x \cdot A + y \cdot B + m \leq 1.0$ ". Therefore simultaneous transmission analysis for 5G NR + LTE + WLAN + BT can be performed in two steps

Step 1: Prove total exposure ratio (TER) of LTE + WLAN + BT < 1

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

Else, if $A + m > 1.0$ and/or $B + m > 1.0$, then the followings need to hold true for compliance:

- i. A and m are decoupled based on the SPLSR criteria, and
- ii. $y \cdot B + m \leq 1.0$, and
- iii. $x \cdot A + y \cdot B \leq 1.0$

Note iii. is covered in Part 2 report; i. and ii. should be addressed in Part 1 report.

Above analysis is also apply to LTE/NR inter-band uplink, LTE(NR)1 + LTE(NR)2 + WLAN + BT simultaneous transmission, so inter-band uplink CA no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of LTE/NR + WLAN + BT < 1.



16.2 Head Exposure Conditions

WWAN Band	Exposure Position	1	3	4	5	6	7	8	9	10	11	1+10	4+10	8+10	4+8+11	3+8	1+5+9	1+6+11	1+7+9+11
		WWAN Ant 12+7 2.4G+ 5G/6G	WLAN 2.4GHz Ant 12+7 2.4G+ 5G/6G+BT	WLAN2.4 GHz Ant 12+7 2.4G+ 5G/6G+BT	WLAN2.4GHz Ant 12+7 2.4G+ WWAN 2.4G+WWAN +5G/6G	WLAN2.4GHz Ant 12+7 2.4G+ WWAN+BT	WLAN2.4GHz Ant 12+7 2.4G+ WWAN+ 5G/6G+BT	WLAN5GHz Ant 9+8 2.4G+5G/6G 5G/6G+BT 2.4G+ 5G/6G+BT	WLAN5GHz Ant 9+8 2.4G+5G/6G 5G/6G+BT 2.4G+ 5G/6G+BT	Bluetooth Ant 12 2.4G+BT 5G/6G+BT	Bluetooth Ant 12 2.4G+BT 5G/6G+BT	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band Ant 0	Right Cheek	0.503	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	1.07	0.84	0.90	0.77	0.77	0.90	0.88	0.98
	Right Tilted	0.187	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	0.85	1.04	1.04	0.93	0.96	0.69	0.64	0.75
	Left Cheek	0.786	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	1.39	1.12	1.26	1.37	1.48	1.53	1.35	1.56
	Left Tilted	0.100	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	0.77	1.00	1.28	1.13	1.11	0.67	0.53	0.76
All Band Ant 1	Right Cheek	0.420	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	0.99	0.84	0.90	0.77	0.77	0.82	0.79	0.90
	Right Tilted	0.197	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	0.86	1.04	1.04	0.93	0.96	0.70	0.65	0.76
	Left Cheek	0.268	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	0.87	1.12	1.26	1.37	1.48	1.02	0.83	1.04
	Left Tilted	0.151	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	0.82	1.00	1.28	1.13	1.11	0.72	0.58	0.81
All Band Ant 5	Right Cheek	0.470	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	1.04	0.84	0.90	0.77	0.77	0.87	0.84	0.95
	Right Tilted	0.219	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	0.88	1.04	1.04	0.93	0.96	0.72	0.67	0.78
	Left Cheek	0.396	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	1.00	1.12	1.26	1.37	1.48	1.14	0.96	1.17
	Left Tilted	0.127	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	0.80	1.00	1.28	1.13	1.11	0.70	0.56	0.79
All Band Ant 6	Right Cheek	0.918	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	1.48	0.84	0.90	0.77	0.77	1.31	1.29	1.40
	Right Tilted	0.770	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	1.43	1.04	1.04	0.93	0.96	1.27	1.22	1.34
	Left Cheek	0.470	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	1.07	1.12	1.26	1.37	1.48	1.22	1.03	1.25
	Left Tilted	0.577	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	1.25	1.00	1.28	1.13	1.11	1.15	1.01	1.24
All Band Ant 7	Right Cheek	0.235	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	0.80	0.84	0.90	0.77	0.77	0.63	0.61	0.72
	Right Tilted	0.137	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	0.80	1.04	1.04	0.93	0.96	0.64	0.59	0.70
	Left Cheek	0.777	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	1.38	1.12	1.26	1.37	1.48	1.53	1.34	1.55
	Left Tilted	0.413	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	1.09	1.00	1.28	1.13	1.11	0.99	0.85	1.08
All Band Ant 8	Right Cheek	0.819	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	1.39	0.84	0.90	0.77	0.77	1.21	1.19	1.30
	Right Tilted	0.093	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	0.75	1.04	1.04	0.93	0.96	0.59	0.54	0.66
	Left Cheek	0.776	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	1.38	1.12	1.26	1.37	1.48	1.52	1.34	1.55
	Left Tilted	0.176	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	0.85	1.00	1.28	1.13	1.11	0.75	0.61	0.84
All Band Ant 9	Right Cheek	0.487	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	1.05	0.84	0.90	0.77	0.77	0.88	0.86	0.97
	Right Tilted	0.581	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	1.24	1.04	1.04	0.93	0.96	1.08	1.03	1.15
	Left Cheek	0.782	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	1.38	1.12	1.26	1.37	1.48	1.53	1.34	1.56
	Left Tilted	0.837	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	1.51	1.00	1.28	1.13	1.11	1.41	1.27	1.50
All Band Ant 11	Right Cheek	0.994	0.436	0.273	0.246	0.203	0.162	0.329	0.149	0.566	0.170	1.56	0.84	0.90	0.77	0.77	1.39	1.37	1.48
	Right Tilted	0.456	0.583	0.379	0.328	0.274	0.215	0.376	0.173	0.661	0.177	1.12	1.04	1.04	0.93	0.96	0.96	0.91	1.02
	Left Cheek	0.366	0.814	0.520	0.459	0.371	0.299	0.661	0.289	0.599	0.188	0.97	1.12	1.26	1.37	1.48	1.11	0.93	1.14
	Left Tilted	0.142	0.507	0.327	0.293	0.237	0.188	0.604	0.280	0.673	0.195	0.82	1.00	1.28	1.13	1.11	0.72	0.57	0.81



16.3 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	3	4	5	6	7	8	9	10	11	1+10	4+10	7+10	4+7+11	3+7	1+4+8	1+5+11	1+6+9+11
		WWAN 2.4GHz Ant 12+7 2.4G+ 5G/6G	WLAN 2.4GHz Ant 12+7 2.4G+ 5G/6G	WLAN2.4GHz Ant 12+7 2.4G+BT 5G/6G+BT 2.4G+ WWAN 2.4G+ WWAN+5G/6G	WLAN 2.4GHz Ant 12+7 2.4G+ WWAN+BT	WLAN2.4GHz Ant 12+7 2.4G+ WWAN+ 5G/6G+BT	WLAN5GHz Ant 9+8 2.4G+ 5G/6G 5G/6G+BT 2.4G+ 5G/6G+BT	WLAN5GHz Ant 9+8 5G/6G+ WWAN 2.4G+ WWAN+ 5G/6G	WLAN5GHz Ant 9+8 5G/6G+ WWAN+BT 2.4G+WWAN +5G/6G+BT	Bluetooth Ant 12 WWAN+BT 2.4G+BT 5G/6G+BT	Bluetooth Ant 12 2.4G+ 5G/6G+BT WWAN+ 2.4G+BT WWAN+ 5G/6G+BT WWAN+ 2.4G+5G/6G+ BT	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band Ant 0	Front	0.396	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.70	0.48	0.49	0.51	0.51	0.74	0.68	0.79
	Back	0.407	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	0.80	0.63	0.84	0.84	0.86	1.03	0.76	1.00
	Left side	0.684	0.056	0.033	0.026	0.022						0.68	0.03	0.00	0.03	0.06	0.72	0.71	0.71
	Right side		0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.07	0.28	0.59	0.76	0.89	0.66	0.20	0.48
	Top side		0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	0.92	1.34	1.28	1.14	1.10	0.74	0.70	0.92
	Bottom side											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Band Ant 1	Front	0.292	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.59	0.48	0.49	0.51	0.51	0.64	0.58	0.69
	Back	0.348	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	0.74	0.63	0.84	0.84	0.86	0.98	0.70	0.94
	Left side		0.056	0.033	0.026	0.022						0.00	0.03	0.00	0.03	0.06	0.03	0.03	0.02
	Right side	0.569	0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.64	0.28	0.59	0.76	0.89	1.23	0.77	1.05
	Top side		0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	0.92	1.34	1.28	1.14	1.10	0.74	0.70	0.92
	Bottom side	0.190										0.19	0.00	0.00	0.00	0.00	0.19	0.19	0.19
All Band Ant 5	Front	0.518	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.82	0.48	0.49	0.51	0.51	0.87	0.80	0.92
	Back	0.629	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	1.03	0.63	0.84	0.84	0.86	1.26	0.98	1.22
	Left side	0.232	0.056	0.033	0.026	0.022						0.23	0.03	0.00	0.03	0.06	0.27	0.26	0.25
	Right side		0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.07	0.28	0.59	0.76	0.89	0.66	0.20	0.48
	Top side		0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	0.92	1.34	1.28	1.14	1.10	0.74	0.70	0.92
	Bottom side	1.094										1.09	0.00	0.00	0.00	0.00	1.09	1.09	1.09
All Band Ant 6	Front	0.298	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.60	0.48	0.49	0.51	0.51	0.65	0.58	0.70
	Back	0.386	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	0.78	0.63	0.84	0.84	0.86	1.01	0.73	0.98
	Left side	0.134	0.056	0.033	0.026	0.022						0.13	0.03	0.00	0.03	0.06	0.17	0.16	0.16
	Right side		0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.07	0.28	0.59	0.76	0.89	0.66	0.20	0.48
	Top side	0.635	0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	1.56	1.34	1.28	1.14	1.10	1.37	1.34	1.56
	Bottom side											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Band Ant 7	Front	0.396	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.70	0.48	0.49	0.51	0.51	0.74	0.68	0.79
	Back	0.547	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	0.94	0.63	0.84	0.84	0.86	1.17	0.90	1.14
	Left side		0.056	0.033	0.026	0.022						0.00	0.03	0.00	0.03	0.06	0.03	0.03	0.02
	Right side	0.827	0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.90	0.28	0.59	0.76	0.89	1.49	1.03	1.31
	Top side	0.079	0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	1.00	1.34	1.28	1.14	1.10	0.82	0.78	1.00
	Bottom side											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Band Ant 8	Front	0.222	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.52	0.48	0.49	0.51	0.51	0.57	0.51	0.62
	Back	0.455	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	0.85	0.63	0.84	0.84	0.86	1.08	0.80	1.05
	Left side		0.056	0.033	0.026	0.022						0.00	0.03	0.00	0.03	0.06	0.03	0.03	0.02
	Right side	0.345	0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.42	0.28	0.59	0.76	0.89	1.01	0.54	0.83
	Top side	0.084	0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	1.01	1.34	1.28	1.14	1.10	0.82	0.79	1.00
	Bottom side											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Band Ant 9	Front	0.143	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.44	0.48	0.49	0.51	0.51	0.49	0.43	0.54
	Back	0.276	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	0.67	0.63	0.84	0.84	0.86	0.90	0.62	0.87
	Left side		0.056	0.033	0.026	0.022						0.00	0.03	0.00	0.03	0.06	0.03	0.03	0.02
	Right side	0.150	0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.22	0.28	0.59	0.76	0.89	0.81	0.35	0.63
	Top side	0.209	0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	1.13	1.34	1.28	1.14	1.10	0.95	0.91	1.13
	Bottom side											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
All Band Ant 11	Front	0.194	0.323	0.185	0.147	0.130	0.187	0.162	0.132	0.299	0.136	0.49	0.48	0.49	0.51	0.51	0.54	0.48	0.59
	Back	0.286	0.408	0.232	0.187	0.166	0.447	0.395	0.265	0.396	0.161	0.68	0.63	0.84	0.84	0.86	0.91	0.63	0.88
	Left side	0.416	0.056	0.033	0.026	0.022						0.42	0.03	0.00	0.03	0.06	0.45	0.44	0.44



FCC SAR Test Report

Report No. : FA521816

Right side		0.366	0.204	0.166	0.149	0.519	0.458	0.303	0.073	0.032	0.07	0.28	0.59	0.76	0.89	0.66	0.20	0.48
Top side	0.075	0.739	0.417	0.335	0.297	0.358	0.321	0.257	0.924	0.366	1.00	1.34	1.28	1.14	1.10	0.81	0.78	1.00
Bottom side											0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

16.4 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	3	4	5	1+3+4+5
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5G/6GHz Ant 9+8	Bluetooth Ant 12	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band Ant 0	Front	0.290	0.142	0.138	0.171	0.74
	Back	0.372	0.246	0.185	0.218	1.02
All Band Ant 1	Front	0.243	0.142	0.138	0.171	0.69
	Back	0.334	0.246	0.185	0.218	0.98
All Band Ant 5	Front	0.266	0.142	0.138	0.171	0.72
	Back	0.363	0.246	0.185	0.218	1.01
All Band Ant 6	Front	0.247	0.142	0.138	0.171	0.70
	Back	0.358	0.246	0.185	0.218	1.01
All Band Ant 7	Front	0.195	0.142	0.138	0.171	0.65
	Back	0.291	0.246	0.185	0.218	0.94
All Band Ant 8	Front	0.190	0.142	0.138	0.171	0.64
	Back	0.453	0.246	0.185	0.218	1.10
All Band Ant 9	Front	0.155	0.142	0.138	0.171	0.61
	Back	0.261	0.246	0.185	0.218	0.91
All Band Ant 11	Front	0.134	0.142	0.138	0.171	0.59
	Back	0.174	0.246	0.185	0.218	0.82

16.5 Product specific 10g SAR Exposure Conditions

Remark:

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

Exposure Position	3	4	5	3+4+5
	WLAN2.4GHz Ant 12+7	WLAN5G/6GHz Ant 9+8	NFC	Summed
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
Front	1.312	0.955		2.27
Back	0.934	0.670	0.016	1.62
Left side				0.00
Right side	1.742	1.818		3.56
Top side	1.277	1.245		2.52
Bottom side				0.00

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

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 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [10] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [11] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [12] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [13] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015

Appendixes

Please refer to separated files for the following appendixes

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

Appendix F. Power measurement connection diagram and CA Conducted RF Output Power Table

Appendix G. Power reduction mechanism verification

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