

FCC SAR Test Report

APPLICANT : Xiaomi Communications Co., Ltd.
EQUIPMENT : Mobile Phone
BRAND NAME : Redmi
MODEL NAME : 22101316UG
FCC ID : 2AFZZ1316UG
STANDARD : FCC 47 CFR Part 2 (2.1093)

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

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



Approved by: Si Zhang

Sporton International Inc. (Shenzhen)

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People's Republic of China



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1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Xiaomi Communications Co., Ltd., Mobile Phone, 22101316UG**, 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	1.08	0.39	0.25	1.59
		GSM1900	1.01	0.90	0.32	
	WCDMA	WCDMA II	1.06	0.97	0.71	
		WCDMA IV	1.09	0.86	0.90	
		WCDMA V	1.06	0.41	0.32	
	LTE	Band 2	0.50	0.98	0.61	
		Band 7	1.09	0.68	0.77	
		Band 12/17	0.64	0.26	0.30	
		Band 13	0.69	0.24	0.20	
		Band 26/5	0.90	0.32	0.28	
		Band 66/4	1.09	0.88	1.00	
		Band 41/38	1.06	1.00	0.66	
	5G NR	n5	1.03	0.39	0.25	
		n7	1.02	0.59	0.94	
		n66	0.99	0.81	0.87	
		n41/n38	1.05	0.65	0.97	
		n77/n78	1.04	0.81	0.63	
DTS	WLAN	2.4GHz WLAN	1.04	0.24	0.46	1.57
NII		5GHz WLAN	1.03	0.26	0.71	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.28	0.19	0.10	1.59



Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	WCDMA	WCDMA II	2.53	3.72
		WCDMA IV	2.54	
	LTE	Band 2	2.36	
		Band 7	2.29	
		Band 66/4	2.59	
		Band 41/38	2.55	
	5G NR	n7	2.50	
		n66	2.40	
		n41/n38	2.48	
		n77/n78	2.33	
NII	WLAN	5GHz WLAN	2.53	3.72
Date of Testing:			2022/9/8 ~ 2022/10/14	

Remark:

1. This device supports LTE B4 / B5 / B17 / B38 and B66 / B26 / B12 / B41. Since the supported frequency span for LTE B4 / B5 / B17 / B38 falls completely within the supports frequency span for LTE B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B66 / B26 / B12 / B41.
2. This device supports 5GNR n78/n38 and n77/n41. Since the supported frequency span for 5GNR n78/n38 falls completely within the supports frequency span for n77/n41, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n77/n41.

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.
	SAR03-SZ/ SAR04-SZ/ SAR05-SZ	CN1256	421272

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

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

3. Guidance Applied

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

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	Redmi
Model Name	22101316UG
FCC ID	2AFZZ1316UG
IMEI Code	SIM1: 868725060036616 SIM2: 868725060036624
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 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: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM(Downlink only) 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20 WLAN 2.4GHz 802.11ax HE20 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/HE20/HE40/HE80 Bluetooth BR/EDR/LE NFC:ASK
HW Version	P2
SW Version	MIUI14
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype



Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 2.4GHz WLAN/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 supports GPRS/EGPRS mode up to multi-slot class 33.
5. This device has NFC operations, the NFC antenna is integrated into the device for this model, therefore, all SAR test were performed with the device which already incorporates the NFC antenna. A diagram showing the location of the antenna can be found in the operational description. According to FCC KDB publication 447498 D01v06, transmitters are consider to be operating simultaneously when there is overlapping transmission, with the exception of transmission during network hand-offs with maximum hand-off duration less than 30 seconds.
6. 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). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests.
7. The device implements Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity). It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi antennas accordingly. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table. Full power table and reduced power table (Default Power: full power, DSI 0: receiver on reduced power for head; DSI 4: hotspot on power; DSI 1: P-sensor on for handheld; DSI 3: receiver off/P-sensor off).
8. For WLAN/BT when transmit simultaneous with WWAN, power reduction will be activated to head, body-worn and extremity.
9. For 5G NR n77/n78 HPUE, 5G NR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
10. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
11. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
12. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
13. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
14. 5G NR n77/n78 support HPUE, HPUE power and SAR testing performed separately.
15. This device supports HPUE for 5G NR n77/n78 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
16. For 5G NR EN-DC mode, standalone SAR performed for 5G NR band with the maximum power, EN-DC SAR summed 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
17. There are two samples. The sample 1 is memory of 8G+256GB and the sample 2 is memory of 8G+128GB. According to the differences, we choose sample 1 to perform full test.
18. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode.

<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, 50
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n38	TDD	30	20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
SA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40, 50
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n38	TDD	30	20, 30, 40



	n41	TDD	30	20, 30, 40, 50, 60, 80, 90, 100
	n77	TDD	30	20, 40, 50, 60, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																															
FCC ID	2AFZZ1316UG																																																														
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																																																														
LTE Voice / Data requirements	Voice and Data																																																														
LTE Release Version	R15, Cat13																																																														
CA Support	Supported, Uplink and Downlink																																																														
LTE MPR permanently built-in by design	<p>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</p> <table border="1"> <thead> <tr> <th rowspan="2">Modulation</th> <th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th> <th rowspan="2">MPR (dB)</th> </tr> <tr> <th>1.4 MHz</th> <th>3.0 MHz</th> <th>5 MHz</th> <th>10 MHz</th> <th>15 MHz</th> <th>20 MHz</th> </tr> </thead> <tbody> <tr> <td>QPSK</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 1</td> </tr> <tr> <td>16 QAM</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>≤ 5</td> <td>≤ 4</td> <td>≤ 8</td> <td>≤ 12</td> <td>≤ 16</td> <td>≤ 18</td> <td>≤ 2</td> </tr> <tr> <td>64 QAM</td> <td>> 5</td> <td>> 4</td> <td>> 8</td> <td>> 12</td> <td>> 16</td> <td>> 18</td> <td>≤ 3</td> </tr> <tr> <td>256 QAM</td> <td colspan="6">≥ 1</td> <td>≤ 5</td> </tr> </tbody> </table>	Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
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256 QAM	≥ 1						≤ 5																																																								
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)																																																														
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																														
Power reduction applied to satisfy SAR compliance	Yes, when operating in Proximity sensors/receiver detect mechanism/hotspot, 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)	
L	23205		779.5		23230		782					
M	23230		782		23230		782					
H	23255		784.5		23230		782					
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 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)
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)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

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

LTE Band 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 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	Antenna	Default	DSI 0	DSI 1	DSI 3	DSI 4
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
LTE Band 4	Ant 0	25.5	25.5	19.0	22.5	19.0
LTE Band 66		25.5	25.5	21.5	25.5	21.0
LTE Band 4	Ant 1	25.1	18.1	20.6	23.6	18.1
LTE Band 66		25.0	18.0	20.5	23.5	18.0
LTE Band 4	Ant 2	25.6	19.6	22.1	25.6	19.6
LTE Band 66		25.7	22.2	23.7	25.7	22.2
LTE Band 4	Ant 3	24.1	24.1	22.6	24.1	22.6
LTE Band 66		24.0	24.0	22.5	24.0	22.5
LTE Band 5	Ant 0	25.5	25.5	25.5	25.5	25.5
LTE Band 26		25.5	25.5	25.5	25.5	25.5
LTE Band 5	Ant 1	25.4	24.9	25.4	25.4	24.9
LTE Band 26		25.4	24.9	25.4	25.4	24.9
LTE Band 12	Ant 0	25.5	25.5	25.5	25.5	25.5
LTE Band 17		25.5	25.5	25.5	25.5	25.5
LTE Band 12	Ant 1	24.8	24.8	24.8	24.8	24.8
LTE Band 17		24.8	24.8	24.8	24.8	24.8
LTE Band 38	Ant 0	25.5	25.5	25.0	25.5	25.0
LTE Band 41		25.5	25.5	25.0	25.5	25.0
LTE Band 38	Ant 1	25.0	22.0	23.0	25.0	22.0
LTE Band 41		25.0	22.0	24.0	25.0	22.0
LTE Band 38	Ant 2	25.7	22.2	22.7	25.7	22.2
LTE Band 41		25.7	22.2	20.7	25.7	20.7
LTE Band 38	Ant 3	24.5	24.5	24.5	24.5	24.5
LTE Band 41		24.5	24.5	24.5	24.5	24.5

3) EN-DC_LTE Bands tune up:

Band	Antenna	Default	DSI 0	DSI 1	DSI 3	DSI 4
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
LTE Band 38	Ant 0	23.7	21.7	21.7	21.7	20.7
LTE Band 41		23.3	21.3	21.3	21.3	21.3
LTE Band 38	Ant 1	25.5	18.5	19.0	20.5	18.5
LTE Band 41		25.0	18.5	19.0	20.5	18.5
LTE Band 38	Ant 2	24.7	17.2	18.2	22.7	17.2
LTE Band 41		24.6	16.6	18.6	22.1	16.6
LTE Band 38	Ant 3	24.8	22.8	21.8	22.8	21.8
LTE Band 41		24.3	22.3	20.8	24.3	20.8

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 n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 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: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 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
LTE Anchor Bands for n7	LTE B7/66
LTE Anchor Bands for n38	LTE B66
LTE Anchor Bands for n41	LTE B41/66
LTE Anchor Bands for n66	LTE B2/5/12/66
LTE Anchor Bands for n78	LTE B2/5/7/38/41/66

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		Bandwidth 50MHz	
	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	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520	505000	2525
M	507000	2535	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	509000	2545

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

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



<3700 MHz ~ 3980 MHz>

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

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

<3450 MHz ~ 3550 MHz>

NR Band 77														
	Bandwidth 20MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631334	3470.01	631668	3475.02	632000	3480	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636000	3540	635332	3529.98	635000	3525	634666	3519.99	634000	3510	633666	3504.99		

NR Band 78																
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632668	3490.02	633000	3495		
M	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01	633334	3500.01
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634000	3510	633666	3504.99		



<For NR Overlap Bands Description>

1) NR Bands BW

Band	20 MHz	30 MHz	40 MHz	50 MHz	60 MHz	80 MHz	90 MHz	100 MHz
FR1 n38	Yes	Yes	Yes					
FR1 n41	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FR1 n77	Yes		Yes	Yes	Yes	Yes	Yes	Yes
FR1 n78	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2) NR Bands tune up:

Band	Antenna	Default	DSI 0	DSI 1	DSI 3	DSI 4
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
FR1 n38	Ant 0	25.5	25.5	21.5	24.5	21.5
FR1 n41		25.5	25.5	21.5	24.0	21.5
FR1 n38	Ant 1	24.9	19.9	20.9	24.9	19.9
FR1 n41		24.9	19.9	20.9	24.9	19.9
FR1 n38	Ant 2	25.7	19.7	20.2	24.7	19.7
FR1 n41		25.7	17.2	19.2	24.2	17.2
FR1 n38	Ant 3	24.6	24.6	23.6	24.1	23.6
FR1 n41		24.6	24.6	23.1	24.6	23.1
FR1 n78	Ant 2	28.4	18.9	20.4	24.4	18.9
FR1 n77		28.4	18.9	21.4	24.4	18.9
FR1 n78	Ant 4	26.3	23.3	24.3	26.3	23.3
FR1 n77		26.3	22.8	24.3	26.3	22.8
FR1 n78	Ant 5	27.5	21.0	24.0	26.0	21.0
FR1 n77		27.5	20.5	24.5	25.0	20.5
FR1 n78	Ant 6	24.8	20.3	24.3	24.3	20.3
FR1 n77		24.8	20.3	24.3	24.3	20.3

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

3) NSA NR Bands tune up:

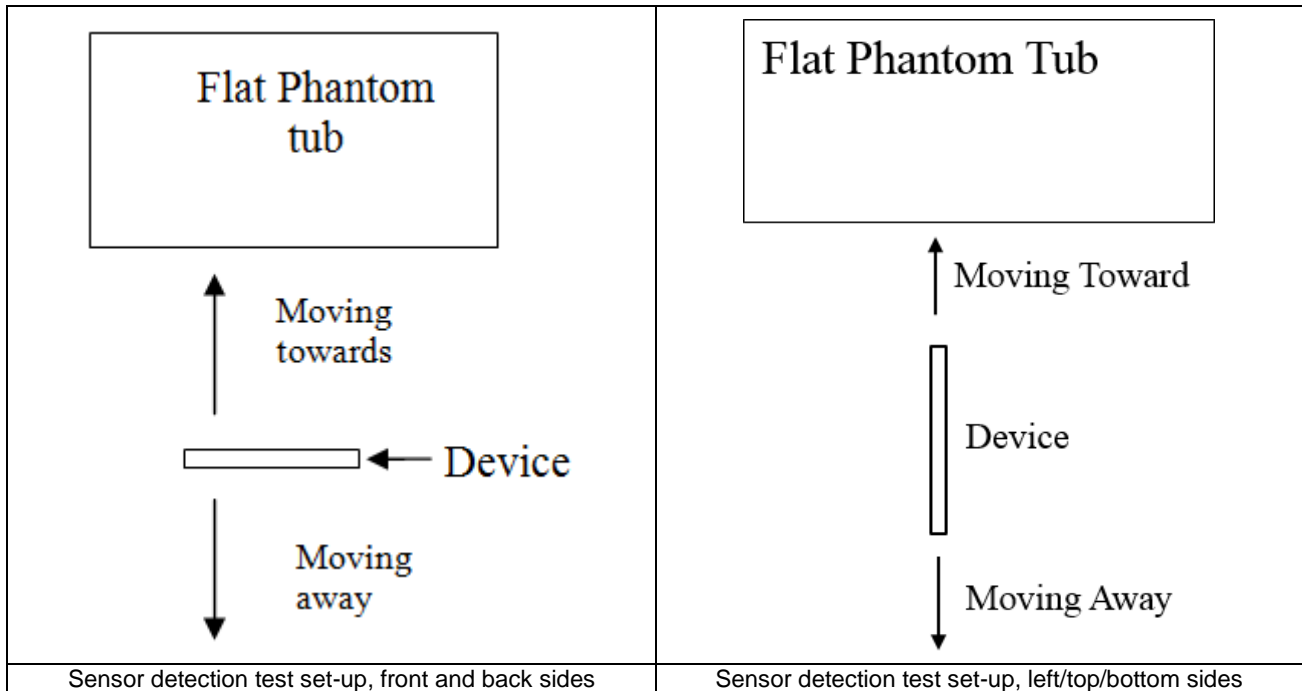
Band	Antenna	Default	DSI 0	DSI 1	DSI 3	DSI 4
		Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit	Tune up Limit
FR1 n38	Ant 0	25.5	23.5	21.5	23.5	21.5
FR1 n41		25.5	23.5	21.5	24.0	21.5
FR1 n38	Ant 1	24.9	17.4	17.9	21.9	17.4
FR1 n41		24.9	17.4	17.9	21.9	17.4
FR1 n38	Ant 2	25.7	17.2	17.2	22.2	17.2
FR1 n41		25.7	17.2	17.2	22.2	17.2
FR1 n38	Ant 3	24.6	24.6	23.6	24.1	23.6
FR1 n41		24.6	24.6	23.1	24.6	23.1

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

5. Proximity Sensor Triggering Test

5.1 Proximity sensor triggering distances(Per KDB616217§6.2)

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed.
2. Proximity sensor triggering distance testing was performed according and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (3980MHz) and lowest (1750MHz) frequency was used for proximity sensor triggering testing.
3. Capacitive proximity sensor placed coincident with antenna elements at the top/bottom end of the phone are utilized to determine when the device comes in proximity of the user's body or finger or hand at the front or back or bottom or left or top side of the device. There is no need to do sensor coverage testing for the proximity sensor is designed to support sufficient detection range and sensitivity to cover regions of the sensors in all applicable directions since the proximity sensor entirely covers the antenna.
4. The sensors can use to detect the proximity of the user's body or handheld states at the front or back or bottom or top or left side of the device use a detection threshold distance. When front/back/left/top/bottom sides of body or handheld condition is detected reduced power will be active. The trigger distance shown in the sections below. The verification test and more details please refer to sensor operation description.
5. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed.



<P-Sensor>

<Sensor on for Ant0/3 >

Proximity Sensor Triggering Distance (mm)				
Position	Back		Bottom Side	
	Moving towards	Moving towards	Moving towards	Moving away
Minimum	16	16	16	16

<Sensor on for Ant2/5 >

Proximity Sensor Triggering Distance (mm)				
Position	Back		Left Side	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	6	6	6

<Sensor on for Ant1/4 >

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving towards	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	6	6	6	6	6	6	6

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

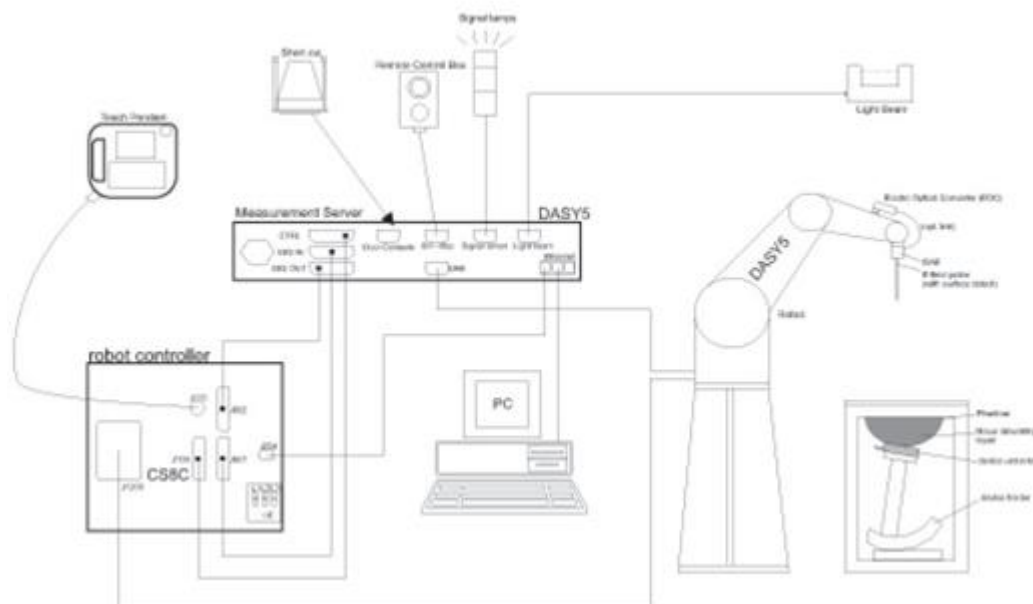
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

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




- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running WinXP or Win7 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.1 E-Field Probe

The SAR measurement is conducted with the dosimetric probe (manufactured by SPEAG).The probe is specially designed and calibrated for use in liquid with high permittivity. The dosimetric probe has special calibration in liquid at different frequency. This probe has a built in optical surface detection system to prevent from collision with phantom.

<EX3DV4 Probe>

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

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

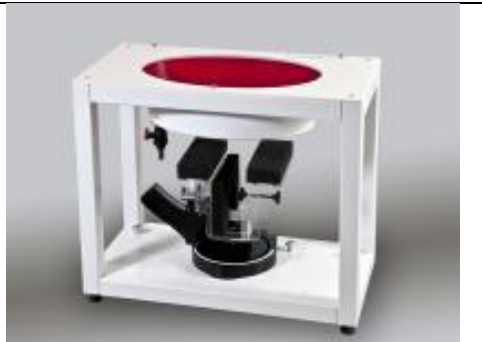
8.3 Phantom

<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 in the frequency range of 30 MHz to 6 GHz. ELI4 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 dB0 is specified in the standards for compliance testing. For example, a 2 dB range is required in IEEE standard 1528 and IEC 62209 standards, whereby 3 dB is a requirement when compliance is assessed in accordance with the ARIB standard (Japan), if only one zoom scan follows the area scan, then only the absolute maximum will be taken as reference. For cases where multiple maximums are detected, the number of zoom scans has to be increased accordingly.

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2} \cdot \delta \cdot \ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	$30^\circ \pm 1^\circ$	$20^\circ \pm 1^\circ$
Maximum area scan spatial resolution: Δx_{Area} , Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be \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: Δx_{Zoom} , Δy_{Zoom}		≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*	
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$	≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm	
	graded grid	$\Delta z_{Zoom}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z	≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm	
<p>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.</p> <p>* 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.</p>				

9.5 Volume Scan Procedures

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

9.6 Power Drift Monitoring

All SAR testing is under the EUT install full charged battery and transmit maximum output power. In DASy measurement software, the power reference measurement and power drift measurement procedures are used for monitoring the power drift of EUT during SAR test. Both these procedures measure the field at a specified reference position before and after the SAR testing. The software will calculate the field difference in dB. If the power drifts more than 5%, the SAR will be retested.



10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 15, 2021	Dec. 14, 2022
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 16, 2022
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 19, 2021	Oct. 18, 2022
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 19, 2022
SPEAG	2450MHz System Validation Kit	D2450V2	1040	May 06, 2020	May 04, 2023
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 19, 2022
SPEAG	3500MHz System Validation Kit	D3500V2	1076	May 09, 2022	May 08, 2023
SPEAG	3700MHz System Validation Kit	D3700V2	1037	May 09, 2022	May 08, 2023
SPEAG	3900MHz System Validation Kit	D3900V2	1048	May 14, 2020	May 12, 2023
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 12, 2022
SPEAG	Data Acquisition Electronics	DAE4	679	Jun. 06, 2022	Jun. 05, 2023
SPEAG	Data Acquisition Electronics	DAE4	715	Dec. 29, 2021	Dec. 28, 2022
SPEAG	Data Acquisition Electronics	DAE4	1437	Oct. 26, 2021	Oct. 25, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7515	Dec. 28, 2021	Dec. 27, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	7577	Nov. 23, 2021	Nov. 22, 2022
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	May 30, 2022	May 29, 2023
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1795	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	1500	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P41 AA	2035	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201300653	Jul. 07, 2022	Jul. 06, 2023
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jun. 27, 2022	Jun. 26, 2023
Anritsu	Radio communication analyzer	MT8821C	6272278319	Jun. 27, 2022	Jun. 26, 2023
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 07, 2022	Jul. 06, 2023
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 25, 2021	Oct. 24, 2022
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Jan. 24, 2022	Jan. 23, 2023
Agilent	Signal Generator	N5181A	MY50145381	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Power Sensor	MA2411B	1306099	Sep. 29, 2021	Sep. 28, 2022
Anritsu	Power Meter	ML2495A	1349001	Sep. 29, 2021	Sep. 28, 2022
Anritsu	Power Sensor	MA2411B	1542004	Dec. 28, 2021	Dec. 27, 2022
Anritsu	Power Meter	ML2495A	1339473	Dec. 28, 2021	Dec. 27, 2022
R&S	Power Sensor	NRP50S	101254	Apr. 07, 2022	Apr. 06, 2023
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 28, 2021	Dec. 27, 2022
R&S	Spectrum Analyzer	FSP7	100818	Jul. 07, 2022	Jul. 06, 2023
TES	Hygrometer	1310	200505600	Jul. 12, 2022	Jul. 11, 2023
Anymetre	Thermo-Hygrometer	JR593	2015102801	Dec. 30, 2021	Dec. 29, 2022
Anymetre	Thermo-Hygrometer	JR593	2018100801	Apr. 12, 2022	Apr. 11, 2023
Anymetre	Thermo-Hygrometer	JR593	2018100802	Oct. 29, 2021	Oct. 28, 2022
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Weinschel	Attenuator 1	3M-10	N/A	Note 1	
Weinschel	Attenuator 2	3M-20	N/A	Note 1	

Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check
2. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole can be found in appendix C. The return loss is $< -20\text{dB}$, 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.

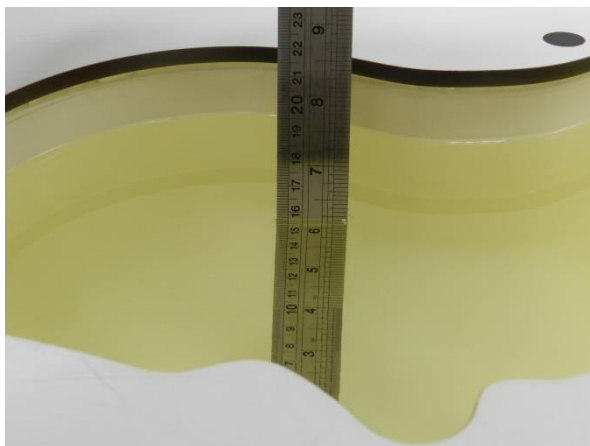


Fig 11.1 Photo of Liquid Height for Head SAR



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	22.5	0.921	41.563	0.89	41.90	3.48	-0.80	±5	2022/9/8
750	Head	22.3	0.879	40.957	0.89	41.90	-1.24	-2.25	±5	2022/9/9
750	Head	22.6	0.933	43.500	0.89	41.90	4.83	3.82	±5	2022/9/16
835	Head	22.3	0.940	41.265	0.90	41.50	4.44	-0.57	±5	2022/9/11
835	Head	22.5	0.897	40.781	0.90	41.50	-0.33	-1.73	±5	2022/9/12
835	Head	22.5	0.934	40.173	0.90	41.50	3.78	-3.20	±5	2022/9/16
835	Head	22.2	0.906	42.403	0.90	41.50	0.67	2.18	±5	2022/9/19
1750	Head	22.6	1.385	39.563	1.37	40.10	1.09	-1.34	±5	2022/9/12
1750	Head	22.4	1.358	41.624	1.37	40.10	-0.88	3.80	±5	2022/9/14
1750	Head	22.5	1.378	40.204	1.37	40.10	0.58	0.26	±5	2022/9/17
1750	Head	22.4	1.375	41.471	1.37	40.10	0.36	3.42	±5	2022/9/18
1900	Head	22.3	1.412	38.427	1.40	40.00	0.86	-3.93	±5	2022/9/14
1900	Head	22.3	1.443	39.345	1.40	40.00	3.07	-1.64	±5	2022/9/15
1900	Head	22.3	1.450	40.635	1.40	40.00	3.57	1.59	±5	2022/9/16
1900	Head	22.4	1.449	39.097	1.40	40.00	3.50	-2.26	±5	2022/9/20
2450	Head	22.2	1.792	39.481	1.80	39.20	-0.44	0.72	±5	2022/9/17
2450	Head	22.5	1.777	38.496	1.80	39.20	-1.28	-1.80	±5	2022/9/22
2450	Head	22.4	1.785	40.490	1.80	39.20	-0.83	3.29	±5	2022/9/23
2600	Head	22.5	1.928	38.584	1.96	39.00	-1.63	-1.07	±5	2022/9/13
2600	Head	22.7	2.039	37.491	1.96	39.00	4.03	-3.87	±5	2022/9/16
2600	Head	22.3	2.053	38.335	1.96	39.00	4.74	-1.71	±5	2022/9/26
3500	Head	22.6	2.866	37.003	2.91	37.90	-1.51	-2.37	±5	2022/9/30
3500	Head	22.5	2.892	36.795	2.91	37.90	-0.62	-2.92	±5	2022/10/1
3700	Head	22.4	3.011	36.767	3.12	37.70	-3.49	-2.47	±5	2022/10/3
3700	Head	22.6	3.039	36.561	3.12	37.70	-2.60	-3.02	±5	2022/10/4
3900	Head	22.7	3.166	36.878	3.33	37.51	-4.92	-1.68	±5	2022/10/5
3900	Head	22.6	3.196	36.353	3.33	37.51	-4.02	-3.08	±5	2022/10/6
5250	Head	22.4	4.592	36.094	4.71	35.95	-2.51	0.40	±5	2022/9/18
5250	Head	22.3	4.565	35.648	4.71	35.95	-3.08	-0.84	±5	2022/10/8
5250	Head	22.3	4.488	37.097	4.71	35.95	-4.71	3.19	±5	2022/10/9
5600	Head	22.8	4.986	35.465	5.07	35.50	-1.66	-0.10	±5	2022/9/19
5600	Head	22.5	4.947	35.037	5.07	35.50	-2.43	-1.30	±5	2022/10/10



5600	Head	22.5	4.829	36.667	5.07	35.50	-4.75	3.29	±5	2022/10/11
5750	Head	22.4	5.159	35.193	5.22	35.35	-1.17	-0.44	±5	2022/9/20
5750	Head	22.8	5.109	36.135	5.22	35.35	-2.13	2.22	±5	2022/10/13
5750	Head	22.4	5.009	36.365	5.22	35.35	-4.04	2.87	±5	2022/10/14

11.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2022/9/8	750	Head	250	1099	7515	679	2.320	8.540	9.28	8.67
2022/9/9	750	Head	250	1099	7577	1437	2.180	8.540	8.72	2.11
2022/9/16	750	Head	250	1099	3819	715	2.310	8.540	9.24	8.20
2022/9/11	835	Head	250	4d162	7515	679	2.520	9.640	10.08	4.56
2022/9/12	835	Head	250	4d162	7577	1437	2.370	9.640	9.48	-1.66
2022/9/16	835	Head	250	4d162	3819	715	2.620	9.640	10.48	8.71
2022/9/19	835	Head	250	4d162	3819	715	2.560	9.640	10.24	6.22
2022/9/12	1750	Head	250	1137	7515	679	9.420	36.500	37.68	3.23
2022/9/14	1750	Head	250	1137	3819	715	9.300	36.500	37.20	1.92
2022/9/17	1750	Head	250	1137	7577	1437	9.180	36.500	36.72	0.60
2022/9/18	1750	Head	250	1137	3819	715	8.640	36.500	34.56	-5.32
2022/9/14	1900	Head	250	5d182	7515	679	9.800	39.600	39.20	-1.01
2022/9/15	1900	Head	250	5d182	3819	715	10.200	39.600	40.80	3.03
2022/9/16	1900	Head	250	5d182	3819	715	10.500	39.600	42.00	6.06
2022/9/20	1900	Head	250	5d182	7577	1437	9.600	39.600	38.40	-3.03
2022/9/17	2450	Head	250	1040	3819	715	12.600	51.800	50.40	-2.70
2022/9/22	2450	Head	250	1040	7515	679	13.200	51.800	52.80	1.93
2022/9/23	2450	Head	250	1040	7577	1437	13.100	51.800	52.40	1.16
2022/9/13	2600	Head	250	1070	3819	715	13.200	56.200	52.80	-6.05
2022/9/16	2600	Head	250	1070	7515	679	14.900	56.200	59.60	6.05
2022/9/26	2600	Head	250	1070	7577	1437	14.200	56.200	56.80	1.07
2022/9/30	3500	Head	100	1076	7515	679	6.980	66.200	69.80	5.44
2022/10/1	3500	Head	100	1076	7577	1437	6.610	66.200	66.10	-0.15
2022/10/3	3700	Head	100	1037	7515	679	7.120	66.700	71.20	6.75
2022/10/4	3700	Head	100	1037	7577	1437	6.950	66.700	69.50	4.20
2022/10/5	3900	Head	100	1048	7515	679	7.350	70.200	73.50	4.70
2022/10/6	3900	Head	100	1048	7577	1437	7.210	70.200	72.10	2.71
2022/9/18	5250	Head	100	1341	3819	715	8.590	80.700	85.90	6.44
2022/10/8	5250	Head	100	1341	7515	679	8.380	80.700	83.80	3.84
2022/10/9	5250	Head	100	1341	7577	1437	8.510	80.700	85.10	5.45
2022/9/19	5600	Head	100	1341	3819	715	9.190	84.500	91.90	8.76
2022/10/10	5600	Head	100	1341	7515	679	9.120	84.500	91.20	7.93
2022/10/11	5600	Head	100	1341	7577	1437	9.080	84.500	90.80	7.46
2022/9/20	5750	Head	100	1341	3819	715	8.760	80.600	87.60	8.68
2022/10/13	5750	Head	100	1341	7515	679	8.380	80.600	83.80	3.97
2022/10/14	5750	Head	100	1341	7577	1437	8.180	80.600	81.80	1.49



<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2022/9/8	750	Head	250	1099	7515	679	1.520	5.650	6.08	7.61
2022/9/9	750	Head	250	1099	7577	1437	1.450	5.650	5.80	2.65
2022/9/16	750	Head	250	1099	3819	715	1.540	5.650	6.16	9.03
2022/9/11	835	Head	250	4d162	7515	679	1.680	6.260	6.72	7.35
2022/9/12	835	Head	250	4d162	7577	1437	1.540	6.260	6.16	-1.60
2022/9/16	835	Head	250	4d162	3819	715	1.700	6.260	6.80	8.63
2022/9/19	835	Head	250	4d162	3819	715	1.630	6.260	6.52	4.15
2022/9/12	1750	Head	250	1137	7515	679	5.090	19.200	20.36	6.04
2022/9/14	1750	Head	250	1137	3819	715	5.120	19.200	20.48	6.67
2022/9/17	1750	Head	250	1137	7577	1437	4.860	19.200	19.44	1.25
2022/9/18	1750	Head	250	1137	3819	715	4.750	19.200	19.00	-1.04
2022/9/14	1900	Head	250	5d182	7515	679	5.360	20.200	21.44	6.14
2022/9/15	1900	Head	250	5d182	3819	715	5.420	20.200	21.68	7.33
2022/9/16	1900	Head	250	5d182	3819	715	5.500	20.200	22.00	8.91
2022/9/20	1900	Head	250	5d182	7577	1437	5.000	20.200	20.00	-0.99
2022/9/17	2450	Head	250	1040	3819	715	5.630	24.000	22.52	-6.17
2022/9/22	2450	Head	250	1040	7515	679	6.250	24.000	25.00	4.17
2022/9/23	2450	Head	250	1040	7577	1437	6.210	24.000	24.84	3.50
2022/9/13	2600	Head	250	1070	3819	715	5.670	24.600	22.68	-7.80
2022/9/16	2600	Head	250	1070	7515	679	6.680	24.600	26.72	8.62
2022/9/26	2600	Head	250	1070	7577	1437	6.240	24.600	24.96	1.46
2022/9/30	3500	Head	100	1076	7515	679	2.650	25.500	26.50	3.92
2022/10/1	3500	Head	100	1076	7577	1437	2.490	25.500	24.90	-2.35
2022/10/3	3700	Head	100	1037	7515	679	2.670	24.600	26.70	8.54
2022/10/4	3700	Head	100	1037	7577	1437	2.530	24.600	25.30	2.85
2022/10/5	3900	Head	100	1048	7515	679	2.660	24.400	26.60	9.02
2022/10/6	3900	Head	100	1048	7577	1437	2.640	24.400	26.40	8.20
2022/9/18	5250	Head	100	1341	3819	715	2.420	23.100	24.20	4.76
2022/10/8	5250	Head	100	1341	7515	679	2.370	23.100	23.70	2.60
2022/10/9	5250	Head	100	1341	7577	1437	2.400	23.100	24.00	3.90
2022/9/19	5600	Head	100	1341	3819	715	2.610	24.000	26.10	8.75
2022/10/10	5600	Head	100	1341	7515	679	2.560	24.000	25.60	6.67
2022/10/11	5600	Head	100	1341	7577	1437	2.520	24.000	25.20	5.00
2022/9/20	5750	Head	100	1341	3819	715	2.450	22.700	24.50	7.93
2022/10/13	5750	Head	100	1341	7515	679	2.360	22.700	23.60	3.96
2022/10/14	5750	Head	100	1341	7577	1437	2.290	22.700	22.90	0.88

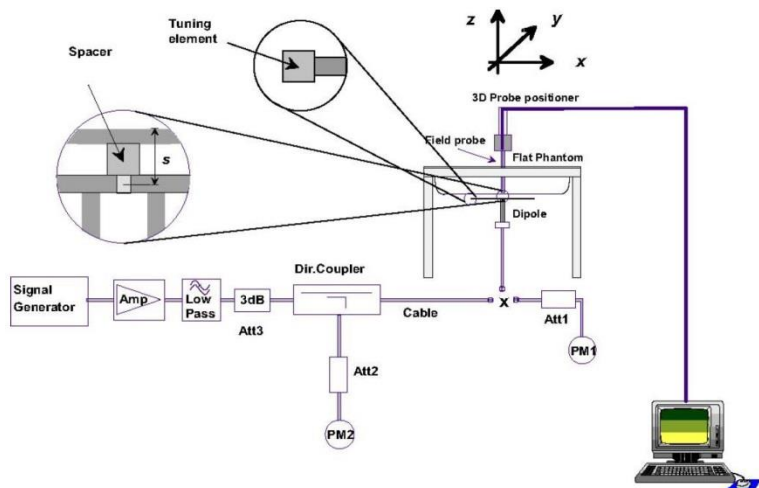


Fig 11.3.1 System Performance Check Setup



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.

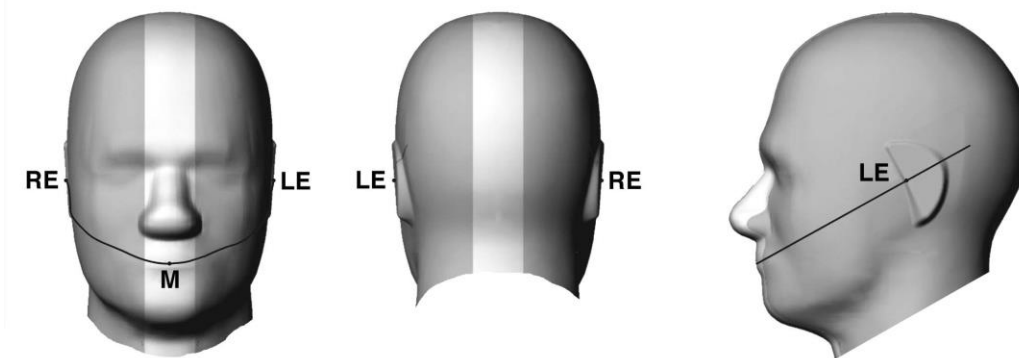


Fig 12.1.1 Front, back, and side views of SAM twin phantom

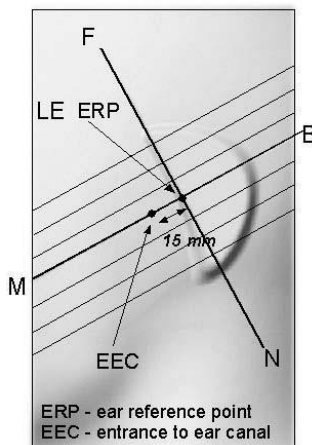


Fig 12.1.2 Close-up side view of phantom showing the ear region.

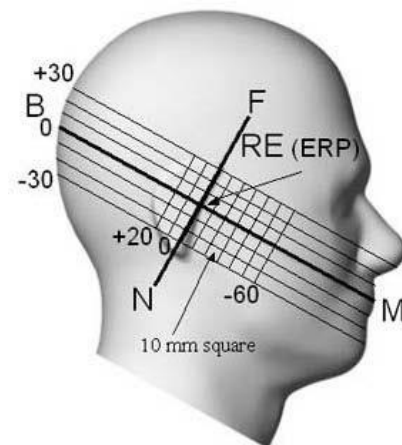


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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 horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 12.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 12.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 12.2.3. The actual rotation angles should be documented in the test report.

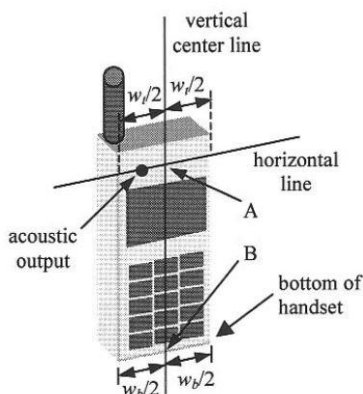


Fig 12.2.1 Handset vertical and horizontal reference lines—“fixed case”

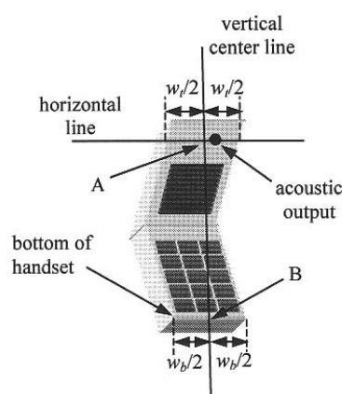


Fig 12.2.2 Handset vertical and horizontal reference lines—“clam-shell case”

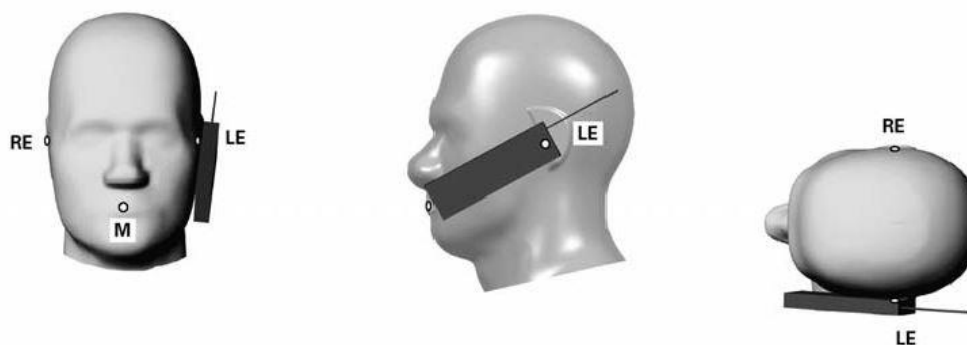


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

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

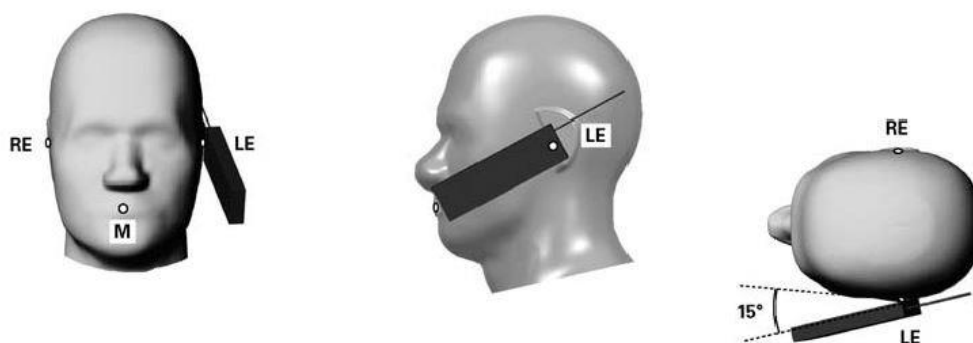


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

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

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

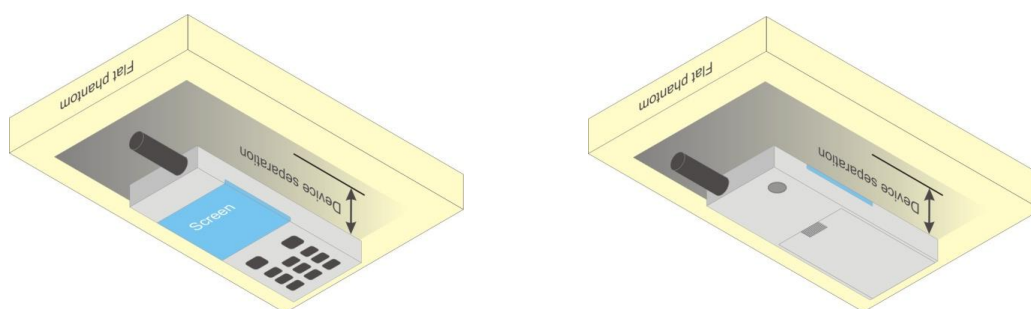


Fig 12.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

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

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

12.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets ($L \times W \geq 9$ 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 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ 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_o/β_d	β_{HS} (Note 1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

- a. The EUT was connected to Base Station Agilent E5515C referred to the Setup Configuration.
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting * :
 - i. Call Configs = 5.2B, 5.9B, 5.10B, and 5.13.2B with QPSK
 - ii. Set the Gain Factors (β_c and β_d) and parameters (AG Index) were set according to each specific sub-test in the following table, C11.1.3, quoted from the TS 34.121
 - iii. Set Cell Power = -86 dBm
 - iv. Set Channel Type = 12.2k + HSPA
 - v. Set UE Target Power
 - vi. Power Ctrl Mode= Alternating bits
 - vii. Set and observe the E-TFCI
 - viii. Confirm that E-TFCI is equal to the target E-TFCI of 75 for sub-test 1, and other subtest's E-TFCI
- d. The transmitted maximum output power was recorded.

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (Note 4) (Note 5)	β_{ed} (SF)	β_{ed} (Codes)	CM (dB) (Note 2)	MPR (dB) (Note 2) (Note 6)	AG Index (Note 5)	E-TFCI
1	11/15 (Note 3)	15/15 (Note 3)	64	11/15 (Note 3)	22/15	209/25	1309/225	4	1	1.0	0.0	20	75
2	6/15	15/15	64	6/15	12/15	12/15	94/75	4	1	3.0	2.0	12	67
3	15/15	9/15	64	15/9	30/15	30/15	β_{ed1} : 47/15 β_{ed2} : 47/15	4 4	2	2.0	1.0	15	92
4	2/15	15/15	64	2/15	4/15	2/15	56/75	4	1	3.0	2.0	17	71
5	15/15	0	-	-	5/15	5/15	47/15	4	1	1.0	0.0	12	67

Note 1: For sub-test 1 to 4, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{hs} = 30/15 * \beta_c$. For sub-test 5, Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 5/15$ with $\beta_{hs} = 5/15 * \beta_c$.

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

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, 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.		

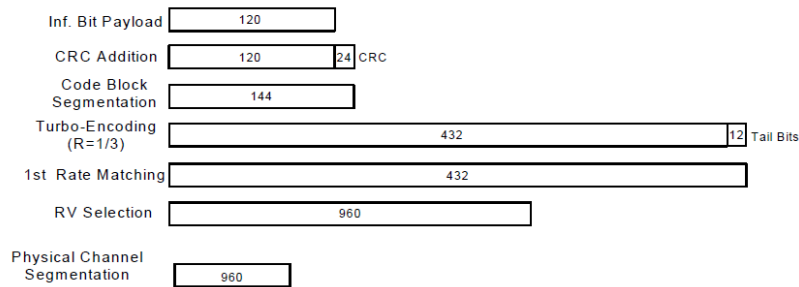


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

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

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

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

Note 1: $\Delta_{ACK}, \Delta_{NACK}$ 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>

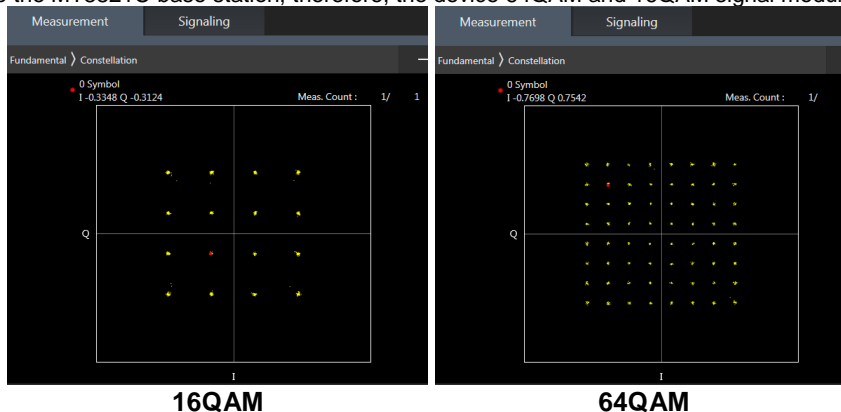
General Note:

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 output power for each RB allocation configuration is $> \frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $> \frac{1}{2}$ 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 B4 / B5 / B17 / B38 SAR test was covered by B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is \leq the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to 2017 May TCB workshop, for 16QAM and 64QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



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:

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



<LTE Carrier Aggregation>

General Note:

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

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation				4CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	CA_12A-66A	66A	3CC-8	1	CA_2A-4A-5A	4A		1	CA_41E	41A-41A	
2	CA_2A-4A	4A	3CC-1	2	CA_2A-7A-7A	7A-7A					
3	CA_2A-5A		3CC-1	3	CA_2A-7C	7C					
4	CA_2A-66A	66A		4	CA_4A-7C	4A-7C					
5	CA_2A-7A	7A	3CC-2	5	CA_5A-7A-7A	7A-7A					
6	CA_2C			6	CA_5A-7C	7C					
7	CA_38C	38C		7	CA_7A-66A-66A	7A					
8	CA_41A-41A	41A-41A	3CC-9	8	CA_12A-66A-66A	66A-66A					
9	CA_41C	41C		9	CA_41A-41A-41A	41A-41A-41A					
10	CA_4A-5A	4A	3CC-1	10	CA_5A-7A-66A	7A					
11	CA_4A-7A	4A-7A	3CC-4	11	CA_41D	41D					
12	CA_5A-41A	41A									
13	CA_5A-7A	7A	3CC-5								
14	CA_66A-66A	66A-66A	3CC-7								
15	CA_7A-7A	7A-7A	3CC-5								
16	CA_7C	7C	3CC-3								
17	CA_66B	66B									
18	CA_66C	66C									
19	CA_7A-66A	7A	3CC-7								
20	CA_5A-66A	66A	3CC-10								
21	CA_38A-66A										
22	CA_2A-2A										

LTE Carrier Aggregation Conducted Power (Downlink)

- i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.
- ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.
- iii. The device supports downlink four carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.
- iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.
- v. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.
- vi. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.
- vii. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

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

LTE 4x4 MIMO (Downlink)

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

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

4X4 MIMO	WWAN Band
	LTE Band: B4/B7/B38/B41/B66



LTE Carrier Aggregation Conducted Power (Uplink)

<Intra-band>

2CC Uplink Carrier Aggregation		
Number	Combination	Ant No.
1	7C	Ant0/1/2/3
2	38C	Ant0/1/2/3
3	41C	Ant0/1/2/3

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B7/B38/41 with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.
- ii. The device supports uplink carrier aggregation with a maximum of two 20MHz component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.
- iii. According 2017 Nov. TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- iv. Additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Combination	Band&Ant No.	Band&Ant No.
2A-4A	LTE B2: Ant 1/3	LTE B4: Ant 0/2
4A-7A	LTE B4: Ant 0/2	LTE B7: Ant 1/3

General Note:

The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level. For Inter-band CA co-located SAR analysis is performed using standalone SAR summed together and they are more conservatively for inter band CA.

**5G NR Output Power (Unit: dBm)****General Note:**

1. 5G NR n5 / n7 / n66 / n38 / n41 / n78 is NSA mode.
2. 5G NR n5 / n7 / n66 / n38 / n41 / n77 / n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-QPSK and the reported SAR for the DFT-QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
 - c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
 - d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
 - f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. 5G NR n77/n78 support HPUE, HPUE power and SAR testing performed separately.
5. 5G NR n77/n78 HPUE with higher power, so we chose power class 3 for full SAR testing and power class 2 verified the worst case of power class 3 SAR.
6. For 5G NR n77/n78 HPUE, 5G NR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
7. 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.
8. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
9. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
10. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
11. For 5G NR EN-DC mode, standalone SAR performed for 5G NR band with the maximum power, EN-DC SAR summed 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.

<3GPP 38.101 MPR for EN-DC>

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

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

ENDC List	LTE Ant	NR Ant
DC_7A_n5A	Ant 1	Ant 0
	Ant 3	
	Ant 0	Ant 1
	Ant 2	
DC_7A_n7A	Ant 1	Ant 0
	Ant 3	Ant 2
DC_66A_n7A	Ant 1	Ant 0
		Ant 2
	Ant 3	Ant 1
		Ant 3
DC_2A_n66A	Ant 1	Ant 0
	Ant 3	Ant 2
DC_5A_n66A	Ant 0	Ant 0
	Ant 1	Ant 2
		Ant 1
		Ant 3
DC_12A_n66A	Ant 0	Ant 0
	Ant 1	Ant 2
		Ant 1
		Ant 3
DC_66A_n66A	Ant 1	Ant 0
	Ant 3	Ant 2
DC_66A_n38A	Ant 1	Ant 0
		Ant 2
	Ant 3	Ant 1
		Ant 3
DC_66A_n41A	Ant 1	Ant 0
	Ant 3	Ant 2
		Ant 1



		Ant 3
DC_41A_n41A	Ant 1	Ant 0
	Ant 3	Ant 2
DC_2A_n78A	Ant 1	Ant 5
		Ant 4
	Ant 3	Ant 2
DC_5A_n78A		Ant 6
	Ant 0	Ant 5
	Ant 1	Ant 4
DC_7A_n78A		Ant 2
	Ant 1	Ant 6
	Ant 3	Ant 5
	Ant 0	Ant 4
DC_66A_n78A	Ant 2	Ant 2
	Ant 1	Ant 6
	Ant 3	Ant 5
	Ant 0	Ant 4
DC_38A_n78A	Ant 2	Ant 2
	Ant 1	Ant 6
	Ant 3	Ant 5
	Ant 0	Ant 4
DC_41A_n78A	Ant 2	Ant 2
	Ant 1	Ant 6
	Ant 3	Ant 5
	Ant 0	Ant 4
	Ant 2	Ant 2

<WLAN Conducted Power>

General Note:

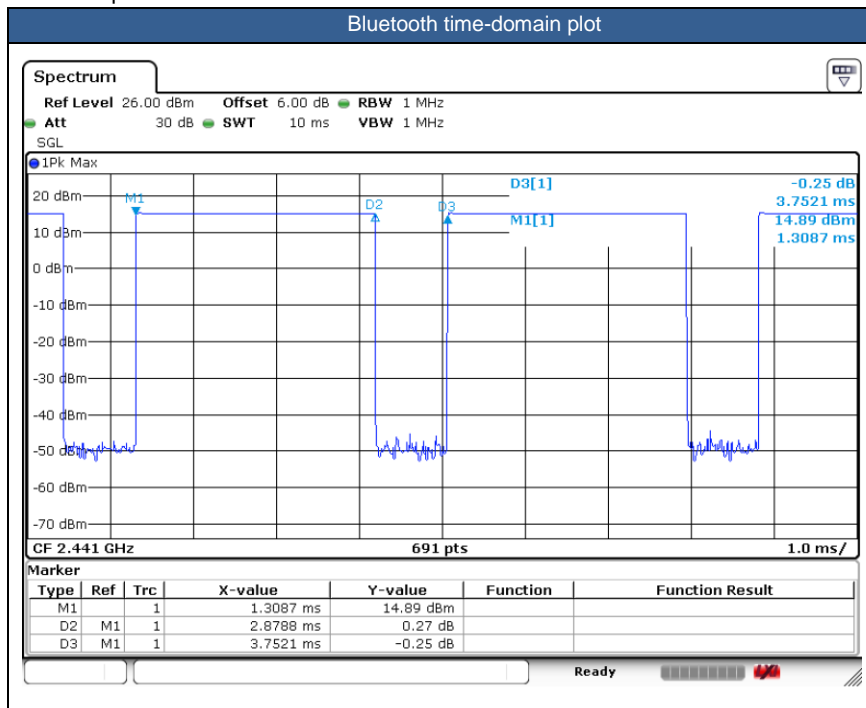
1. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
2. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
3. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
4. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. 802.11ax supports full tone size and partial tone size, after verification for the partial tone power level is far less than full tone power level, so we chose full tone power to be measured in this report.
6. 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 we can only chose MIMO power to perform SAR testing. However, in order to do SISO simultaneous transmission, we tested the WLAN 2.4G SISO antenna 7/8 and the WLAN 5G SISO antenna 8.
7. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.



<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle is 76.73 % as following figure, according to 2016 Oct. TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation





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 BT/WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix $63.3\%/62.9\% = 1.006$ is applied to scale-up the measured SAR result. The Reported TDD LTE SAR = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required 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. 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). After pre-scan two SIM cards power, we found test result of the SIM1 was the worse, so we chose SIM1 slot to perform all tests.
5. The device implements Proximity sensors/receiver detect mechanism/hotspot trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity). It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi antennas accordingly. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table. Full power table and reduced power table (Default Power: full power, DSI 0: receiver on reduced power for head; DSI 4: hotspot on power; DSI 1: P-sensor on for handheld; DSI 3: receiver off/P-sensor off).
6. For WLAN/BT when transmit simultaneous with WWAN, power reduction will be activated to head, body-worn and extremity.
7. 5G NR n77/n78 support HPUE, HPUE power and SAR testing performed separately.
8. 5G NR n77/n78 HPUE with higher power, so we chose power class 2 for full SAR testing and power class 3 verified the worst case of power class 2 SAR.
9. For 5G NR n77/n78 HPUE, 5G NR n77/n78 PC2 Maximum Duty Cycle is 50%, using FTM (Factory Test Mode) with 50% duty cycle is considered during SAR testing. For 5G NR other bands, using FTM to perform SAR with default 100% transmission.
10. For 5G NR EN-DC mode, standalone SAR performed for 5G NR band with the maximum power, EN-DC SAR summed 5G NR standalone SAR and LTE standalone SAR, the result of EN-DC SAR is more conservatively.
11. 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.
12. 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.
13. 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.
14. 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.
15. 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. WCDMA B2/B4, LTE B2/B4/B7 /B66/B38/B41, 5G NR n7/n66/n38/n41/n77/n78, and WLAN 5.8G are required to be tested.
 - 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.
16. LTE B5/12 ant0/2, B2 ant1/3 and B7/66/38/41 ant0/1/2/3 support different PAs for some antennas, and LTE/NR bands support Other PA only under ENDC & UL CA. For the maximum power of Main PA is higher than and very close to the other PA. So we chose the main PA to perform full SAR testing to ensure the RF exposure is compliance and other PA to verify the worst case. For some bands chose other PA to perform full SAR testing to ensure the RF exposure is compliance.
17. For distance SAR and non-distance SAR, always chose higher SAR to do co-located analysis.

GSM Note:

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

WCDMA Note:

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

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are \leq 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is $>$ 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is $>$ not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is \leq 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is \leq 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 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 B4 / B5 / B17 / B38 SAR test was covered by LTE B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is \leq the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
 - b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
 - c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
 - d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK/16QAM /64QAM/256QAM SAR testing are not required.
 - e. Smaller bandwidth output power for each RB allocation configuration for this device will not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - f. For 5G FR1 n5 /n7/n41/n66/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
6. 802.11ax supports full tone size and partial tone size, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
7. 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 power to perform SAR testing. However, in order to do SISO simultaneous transmission, we tested the WLAN 2.4G SISO antenna 7/8 and the WLAN 5G SISO antenna 8.
8. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.



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)
750MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	23095	707.5	24.65	25.50	1.216	-	-	-0.15	0.100	0.122
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	23095	707.5	24.65	25.50	1.216	-	-	0.09	0.068	0.083
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	23095	707.5	24.65	25.50	1.216	-	-	0.11	0.110	0.134
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	23095	707.5	24.65	25.50	1.216	-	-	0.02	0.059	0.072
	LTE Band 12(EN-DC)	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	23095	707.5	24.51	25.50	1.256	-	-	0.03	0.106	0.133
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 0	23095	707.5	23.70	24.50	1.202	-	-	-0.12	0.084	0.101
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 0	23095	707.5	23.70	24.50	1.202	-	-	-0.16	0.058	0.070
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 0	23095	707.5	23.70	24.50	1.202	-	-	-0.09	0.097	0.117
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 0	23095	707.5	23.70	24.50	1.202	-	-	-0.03	0.052	0.063
01	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	23095	707.5	23.63	24.80	1.309	-	-	0.11	0.488	0.639
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	23095	707.5	23.63	24.80	1.309	-	-	0.18	0.452	0.592
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	23095	707.5	23.63	24.80	1.309	-	-	0.09	0.440	0.576
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	23095	707.5	23.63	24.80	1.309	-	-	-0.04	0.410	0.537
	LTE Band 12(EN-DC)	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	23095	707.5	22.30	23.50	1.318	-	-	-0.04	0.403	0.531
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 0	23095	707.5	22.77	23.80	1.268	-	-	-0.03	0.413	0.524
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 0	23095	707.5	22.77	23.80	1.268	-	-	0.14	0.383	0.486
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 0	23095	707.5	22.77	23.80	1.268	-	-	0.01	0.362	0.459
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 0	23095	707.5	22.77	23.80	1.268	-	-	-0.19	0.336	0.426
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	23230	782	24.46	25.50	1.271	-	-	0.06	0.027	0.034
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	23230	782	24.46	25.50	1.271	-	-	0.03	0.013	0.017
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	23230	782	24.46	25.50	1.271	-	-	0.12	0.029	0.037
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	23230	782	24.46	25.50	1.271	-	-	0.03	0.015	0.019
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 0	23230	782	23.38	24.50	1.294	-	-	0.02	0.020	0.026
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 0	23230	782	23.38	24.50	1.294	-	-	0.06	0.011	0.014
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 0	23230	782	23.38	24.50	1.294	-	-	0.04	0.022	0.028
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 0	23230	782	23.38	24.50	1.294	-	-	0.11	0.010	0.013
02	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	23230	782	23.88	24.90	1.265	-	-	-0.19	0.545	0.689
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	23230	782	23.88	24.90	1.265	-	-	-0.06	0.507	0.641
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	23230	782	23.88	24.90	1.265	-	-	-0.19	0.504	0.637
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	23230	782	23.88	24.90	1.265	-	-	0.08	0.460	0.582
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 0	23230	782	22.79	23.90	1.291	-	-	0.18	0.406	0.524
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 0	23230	782	22.79	23.90	1.291	-	-	-0.17	0.374	0.483
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 0	23230	782	22.79	23.90	1.291	-	-	0.13	0.372	0.480
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 0	23230	782	22.79	23.90	1.291	-	-	0.17	0.338	0.436
835MHz																				
	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 0	DSI 0	189	836.4	26.96	27.50	1.132	-	-	-0.04	0.119	0.135
	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Tilted	0mm	Ant 0	DSI 0	189	836.4	26.96	27.50	1.132	-	-	0.1	0.062	0.070
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Cheek	0mm	Ant 0	DSI 0	189	836.4	26.96	27.50	1.132	-	-	-0.11	0.122	0.138
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Tilted	0mm	Ant 0	DSI 0	189	836.4	26.96	27.50	1.132	-	-	-0.12	0.074	0.084
	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 1	DSI 0	189	836.4	26.73	27.50	1.194	-	-	0.03	0.787	0.940
	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Tilted	0mm	Ant 1	DSI 0	189	836.4	26.73	27.50	1.194	-	-	0.08	0.686	0.819
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Cheek	0mm	Ant 1	DSI 0	189	836.4	26.73	27.50	1.194	-	-	-0.14	0.711	0.849
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Tilted	0mm	Ant 1	DSI 0	189	836.4	26.73	27.50	1.194	-	-	-0.16	0.698	0.833
	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 1	DSI 0	128	824.2	26.71	27.50	1.199	-	-	0.16	0.760	0.912
03	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 1	DSI 0	251	848.8	26.58	27.50	1.236	-	-	-0.19	0.871	1.077
	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Tilted	0mm	Ant 1	DSI 0	128	824.2	26.71	27.50	1.199	-	-	0.03	0.706	0.847
	GSM850	-	-	-	-	GPRS (4 TX slots)	Right Tilted	0mm	Ant 1	DSI 0	251	848.8	26.58	27.50	1.236	-	-	0	0.751	0.928
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Cheek	0mm	Ant 1	DSI 0	128	824.2	26.71	27.50	1.199	-	-	-0.17	0.685	0.822
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Cheek	0mm	Ant 1	DSI 0	251	848.8	26.58	27.50	1.236	-	-	0.17	0.789	0.975
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Tilted	0mm	Ant 1	DSI 0	128	824.2	26.71	27.50	1.199	-	-	-0.09	0.597	0.716
	GSM850	-	-	-	-	GPRS (4 TX slots)	Left Tilted	0mm	Ant 1	DSI 0	251	848.8	26.58	27.50	1.236	-	-	0.18	0.749	0.926
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 0	4182	836.4	24.31	25.00	1.172	-	-	0.04	0.107	0.125



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	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 0	4182	836.4	24.31	25.00	1.172	-	-	0.06	0.060	0.070
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 0	4182	836.4	24.31	25.00	1.172	-	-	-0.05	0.114	0.134
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 0	4182	836.4	24.31	25.00	1.172	-	-	0.04	0.065	0.076
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	4182	836.4	23.42	24.50	1.282	-	-	0.15	0.784	1.005
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 0	4182	836.4	23.42	24.50	1.282	-	-	0.07	0.693	0.889
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 0	4182	836.4	23.42	24.50	1.282	-	-	0.07	0.727	0.932
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 0	4182	836.4	23.42	24.50	1.282	-	-	-0.01	0.689	0.884
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	4132	826.4	23.40	24.50	1.288	-	-	-0.12	0.799	1.029
04	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 0	4233	846.6	23.31	24.50	1.315	-	-	-0.09	0.802	1.055
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 0	4132	826.4	23.40	24.50	1.288	-	-	-0.09	0.684	0.881
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 0	4233	846.6	23.31	24.50	1.315	-	-	0.02	0.732	0.963
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 0	4132	826.4	23.40	24.50	1.288	-	-	0.02	0.705	0.908
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 0	4233	846.6	23.31	24.50	1.315	-	-	-0.1	0.700	0.921
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 0	4132	826.4	23.40	24.50	1.288	-	-	-0.09	0.656	0.845
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 0	4233	846.6	23.31	24.50	1.315	-	-	0.03	0.693	0.911
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	20525	836.5	23.69	24.70	1.262	-	-	-0.14	0.107	0.135
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	20525	836.5	23.69	24.70	1.262	-	-	0.06	0.060	0.076
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	20525	836.5	23.69	24.70	1.262	-	-	0.08	0.121	0.153
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	20525	836.5	23.69	24.70	1.262	-	-	0.18	0.070	0.088
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 0	20525	836.5	23.67	24.70	1.268	-	-	0.12	0.105	0.133
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 0	20525	836.5	23.67	24.70	1.268	-	-	-0.05	0.062	0.079
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 0	20525	836.5	23.67	24.70	1.268	-	-	-0.07	0.117	0.148
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 0	20525	836.5	23.67	24.70	1.268	-	-	0.05	0.069	0.087
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	20525	836.5	20.27	21.50	1.327	-	-	-0.11	0.400	0.531
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	20525	836.5	20.27	21.50	1.327	-	-	0.08	0.309	0.410
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	20525	836.5	20.27	21.50	1.327	-	-	-0.13	0.364	0.483
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	20525	836.5	20.27	21.50	1.327	-	-	0.04	0.271	0.360
05	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 0	20525	836.5	20.20	21.50	1.349	-	-	-0.06	0.398	0.537
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 0	20525	836.5	20.20	21.50	1.349	-	-	-0.14	0.310	0.418
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 0	20525	836.5	20.20	21.50	1.349	-	-	-0.11	0.358	0.483
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 0	20525	836.5	20.20	21.50	1.349	-	-	0.11	0.295	0.398
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	26865	831.5	24.45	25.50	1.274	-	-	-0.14	0.115	0.146
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	26865	831.5	24.45	25.50	1.274	-	-	0.06	0.065	0.083
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	26865	831.5	24.45	25.50	1.274	-	-	0.08	0.117	0.149
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	26865	831.5	24.45	25.50	1.274	-	-	0.18	0.071	0.090
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 0	26865	831.5	23.41	24.50	1.285	-	-	0.12	0.088	0.113
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 0	26865	831.5	23.41	24.50	1.285	-	-	-0.05	0.055	0.071
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 0	26865	831.5	23.41	24.50	1.285	-	-	-0.07	0.091	0.117
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 0	26865	831.5	23.41	24.50	1.285	-	-	0.05	0.056	0.072
06	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	26865	831.5	23.64	24.90	1.337	-	-	0.02	0.673	0.900
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	26865	831.5	23.64	24.90	1.337	-	-	0.11	0.573	0.766
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	26865	831.5	23.64	24.90	1.337	-	-	0.05	0.618	0.826
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	26865	831.5	23.64	24.90	1.337	-	-	-0.18	0.558	0.746
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI 0	26865	831.5	23.13	24.40	1.340	-	-	0.01	0.602	0.806
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI 0	26865	831.5	23.13	24.40	1.340	-	-	0.13	0.516	0.691
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 0	26865	831.5	23.13	24.40	1.340	-	-	-0.17	0.565	0.757
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI 0	26865	831.5	23.13	24.40	1.340	-	-	-0.11	0.486	0.651
	LTE Band 26	15M	QPSK	75	0	-	Right Cheek	0mm	Ant 1	DSI 0	26865	831.5	23.17	24.40	1.327	-	-	0.04	0.598	0.794
	LTE Band 26	15M	QPSK	75	0	-	Left Cheek	0mm	Ant 1	DSI 0	26865	831.5	23.17	24.40	1.327	-	-	0.13	0.557	0.739
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	167300	836.5	24.61	25.50	1.227	-	-	0.11	0.120	0.147
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 0	167300	836.5	24.61	25.50	1.227	-	-	0.11	0.057	0.070
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 0	167300	836.5	24.61	25.50	1.227	-	-	0.1	0.124	0.152
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 0	167300	836.5	24.61	25.50	1.227	-	-	-0.02	0.072	0.088
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	167300	836.5	24.53	25.50	1.250	-	-	0.15	0.109	0.136
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 0	167300	836.5	24.53	25.50	1.250	-	-	0.18	0.060	0.075
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 0	167300	836.5	24.53	25.50	1.250	-	-	-0.15	0.118	0.148
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 0	167300	836.5	24.53	25.50	1.250	-	-	-0.02	0.067	0.084



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07	FR1 n5	20M	QPSK	1	53	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	167300	836.5	23.80	24.80	1.259	-	-	-0.07	0.814	1.025
	FR1 n5	20M	QPSK	1	53	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	167300	836.5	23.80	24.80	1.259	-	-	0.11	0.587	0.739
	FR1 n5	20M	QPSK	1	53	DFT-15	Left Cheek	0mm	Ant 1	DSI 0	167300	836.5	23.80	24.80	1.259	-	-	0.09	0.715	0.900
	FR1 n5	20M	QPSK	1	53	DFT-15	Left Tilted	0mm	Ant 1	DSI 0	167300	836.5	23.80	24.80	1.259	-	-	0.19	0.594	0.748
	FR1 n5(EN-DC)	20M	QPSK	1	53	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	167300	836.5	20.56	21.80	1.330	-	-	0.02	0.397	0.528
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	167300	836.5	23.74	24.80	1.276	-	-	-0.14	0.802	1.024
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	167300	836.5	23.74	24.80	1.276	-	-	-0.02	0.595	0.759
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	DSI 0	167300	836.5	23.74	24.80	1.276	-	-	0.14	0.694	0.886
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	DSI 0	167300	836.5	23.74	24.80	1.276	-	-	0.04	0.620	0.791
	FR1 n5	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	167300	836.5	23.25	24.30	1.274	-	-	-0.12	0.789	1.005
	FR1 n5	20M	QPSK	100	0	DFT-15	Left Cheek	0mm	Ant 1	DSI 0	167300	836.5	23.25	24.30	1.274	-	-	0.07	0.686	0.874
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 0	1413	1732.6	24.36	25.00	1.159	-	-	-0.15	0.119	0.138
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 0	1413	1732.6	24.36	25.00	1.159	-	-	-0.15	0.116	0.134
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 0	1413	1732.6	24.36	25.00	1.159	-	-	-0.08	0.177	0.205
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 0	1413	1732.6	24.36	25.00	1.159	-	-	-0.13	0.096	0.111
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	1413	1732.6	21.38	22.50	1.294	-	-	0.14	0.733	0.949
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 0	1413	1732.6	21.38	22.50	1.294	-	-	0.11	0.203	0.263
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 0	1413	1732.6	21.38	22.50	1.294	-	-	0.08	0.365	0.472
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 0	1413	1732.6	21.38	22.50	1.294	-	-	0.11	0.233	0.302
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	1312	1712.4	21.11	22.50	1.377	-	-	0.08	0.769	1.059
08	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	1513	1752.6	21.37	22.50	1.297	-	-	-0.01	0.838	1.087
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	20175	1732.5	24.46	25.50	1.271	-	-	0.02	0.111	0.141
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	20175	1732.5	24.46	25.50	1.271	-	-	-0.13	0.102	0.130
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	20175	1732.5	24.46	25.50	1.271	-	-	0.06	0.191	0.243
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	20175	1732.5	24.46	25.50	1.271	-	-	0.05	0.099	0.126
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 0	20175	1732.5	23.55	24.50	1.245	-	-	-0.07	0.093	0.116
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 0	20175	1732.5	23.55	24.50	1.245	-	-	-0.03	0.085	0.106
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 0	20175	1732.5	23.55	24.50	1.245	-	-	-0.07	0.154	0.192
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 0	20175	1732.5	23.55	24.50	1.245	-	-	-0.01	0.081	0.101
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	20175	1732.5	17.01	18.10	1.285	-	-	-0.1	0.573	0.736
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	20175	1732.5	17.01	18.10	1.285	-	-	-0.14	0.794	1.021
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	20175	1732.5	17.01	18.10	1.285	-	-	0.01	0.423	0.544
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	20175	1732.5	17.01	18.10	1.285	-	-	-0.06	0.590	0.758
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	20175	1732.5	16.90	18.10	1.318	-	-	0.06	0.584	0.770
09	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	20175	1732.5	16.90	18.10	1.318	-	-	-0.11	0.824	1.086
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 0	20175	1732.5	16.90	18.10	1.318	-	-	0.03	0.446	0.588
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 0	20175	1732.5	16.90	18.10	1.318	-	-	0.01	0.602	0.794
	LTE Band 4	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 0	20175	1732.5	16.78	18.10	1.355	-	-	-0.01	0.786	1.065
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	20175	1732.5	18.76	19.60	1.213	-	-	-0.07	0.406	0.493
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	20175	1732.5	18.76	19.60	1.213	-	-	0.06	0.112	0.136
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	20175	1732.5	18.76	19.60	1.213	-	-	-0.15	0.198	0.240
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	20175	1732.5	18.76	19.60	1.213	-	-	-0.02	0.124	0.150
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	20175	1732.5	18.73	19.60	1.222	-	-	0.01	0.384	0.469
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	20175	1732.5	18.73	19.60	1.222	-	-	-0.18	0.109	0.133
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	20175	1732.5	18.73	19.60	1.222	-	-	0.07	0.200	0.244
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	20175	1732.5	18.73	19.60	1.222	-	-	0.03	0.125	0.153
	LTE Band 4	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	20175	1732.5	23.29	24.10	1.205	-	-	-0.06	0.110	0.133
	LTE Band 4	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 0	20175	1732.5	23.29	24.10	1.205	-	-	0.12	0.098	0.118
	LTE Band 4	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	20175	1732.5	23.29	24.10	1.205	-	-	-0.14	0.172	0.207
	LTE Band 4	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 0	20175	1732.5	23.29	24.10	1.205	-	-	-0.07	0.091	0.110
	LTE Band 4	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	20175	1732.5	22.28	23.10	1.208	-	-	0.06	0.087	0.105
	LTE Band 4	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 0	20175	1732.5	22.28	23.10	1.208	-	-	-0.01	0.082	0.099
	LTE Band 4	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	20175	1732.5	22.28	23.10	1.208	-	-	0.03	0.137	0.165
	LTE Band 4	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 0	20175	1732.5	22.28	23.10	1.208	-	-	0.01	0.073	0.088
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	132322	1745	24.56	25.50	1.242	-	-	-0.19	0.128	0.159
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	132322	1745	24.56	25.50	1.242	-	-	0.03	0.113	0.140



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	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	132322	1745	24.56	25.50	1.242	-	-	0.02	0.178	0.221
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	132322	1745	24.56	25.50	1.242	-	-	-0.09	0.108	0.134
	LTE Band 66(EN-DC)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	132322	1745	23.48	25.20	1.486	-	-	0.04	0.131	0.195
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 0	132322	1745	23.65	24.50	1.216	-	-	-0.06	0.103	0.125
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 0	132322	1745	23.65	24.50	1.216	-	-	0.11	0.097	0.118
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 0	132322	1745	23.65	24.50	1.216	-	-	0.02	0.149	0.181
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 0	132322	1745	23.65	24.50	1.216	-	-	0.07	0.094	0.114
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	132322	1745	16.86	18.00	1.300	-	-	-0.17	0.557	0.724
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	132322	1745	16.86	18.00	1.300	-	-	-0.11	0.745	0.969
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	132322	1745	16.86	18.00	1.300	-	-	-0.01	0.394	0.512
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	132322	1745	16.86	18.00	1.300	-	-	-0.02	0.493	0.641
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	132072	1720	16.78	18.00	1.324	-	-	-0.07	0.782	1.036
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	132572	1770	16.80	18.00	1.318	-	-	0.03	0.648	0.854
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	132322	1745	16.84	18.00	1.306	-	-	-0.17	0.541	0.707
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	132322	1745	16.84	18.00	1.306	-	-	0.18	0.715	0.934
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 0	132322	1745	16.84	18.00	1.306	-	-	0.05	0.405	0.529
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 0	132322	1745	16.84	18.00	1.306	-	-	-0.09	0.504	0.658
10	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	132072	1720	16.72	18.00	1.343	-	-	0.19	0.799	1.073
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	132572	1770	16.69	18.00	1.352	-	-	0.02	0.649	0.877
	LTE Band 66(EN-DC)	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	132072	1720	17.09	18.00	1.233	-	-	0.01	0.146	0.180
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 0	132322	1745	16.82	18.00	1.312	-	-	0.01	0.705	0.925
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	132322	1745	21.31	22.20	1.227	-	-	0.01	0.657	0.806
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	132322	1745	21.31	22.20	1.227	-	-	-0.06	0.181	0.222
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	132322	1745	21.31	22.20	1.227	-	-	0.03	0.384	0.471
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	132322	1745	21.31	22.20	1.227	-	-	-0.02	0.216	0.265
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	132072	1720	21.05	22.20	1.303	-	-	-0.16	0.643	0.838
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	132572	1770	21.20	22.20	1.259	-	-	0.17	0.657	0.827
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	132322	1745	21.24	22.20	1.247	-	-	0.05	0.676	0.843
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	132322	1745	21.24	22.20	1.247	-	-	0.18	0.225	0.281
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	132322	1745	21.24	22.20	1.247	-	-	0.02	0.409	0.510
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	132322	1745	21.24	22.20	1.247	-	-	0.02	0.236	0.294
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	132072	1720	21.09	22.20	1.291	-	-	-0.07	0.650	0.839
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	132572	1770	21.18	22.20	1.265	-	-	0.02	0.661	0.836
	LTE Band 66(EN-DC)	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	132322	1745	19.93	20.70	1.194	-	-	-0.14	0.125	0.149
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 0	132322	1745	21.06	22.20	1.300	-	-	0.05	0.648	0.843
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	132322	1745	23.32	24.00	1.169	-	-	0.17	0.106	0.124
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 0	132322	1745	23.32	24.00	1.169	-	-	0.17	0.097	0.113
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	132322	1745	23.32	24.00	1.169	-	-	-0.11	0.219	0.256
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 0	132322	1745	23.32	24.00	1.169	-	-	0.05	0.082	0.096
	LTE Band 66(EN-DC)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	132322	1745	24.06	24.20	1.033	-	-	0.11	0.109	0.113
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	132322	1745	22.46	23.00	1.132	-	-	0.18	0.085	0.096
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 0	132322	1745	22.46	23.00	1.132	-	-	-0.18	0.076	0.086
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	132322	1745	22.46	23.00	1.132	-	-	-0.16	0.174	0.197
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 0	132322	1745	22.46	23.00	1.132	-	-	0.15	0.068	0.077
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	349000	1745	24.42	25.50	1.282	-	-	-0.09	0.101	0.130
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Right Tilted	0mm	Ant 0	DSI 0	349000	1745	24.42	25.50	1.282	-	-	0.16	0.090	0.115
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Left Cheek	0mm	Ant 0	DSI 0	349000	1745	24.42	25.50	1.282	-	-	-0.12	0.174	0.223
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Left Tilted	0mm	Ant 0	DSI 0	349000	1745	24.42	25.50	1.282	-	-	-0.09	0.100	0.128
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	349000	1745	24.36	25.50	1.300	-	-	-0.14	0.103	0.134
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 0	DSI 0	349000	1745	24.36	25.50	1.300	-	-	0.03	0.095	0.124
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 0	DSI 0	349000	1745	24.36	25.50	1.300	-	-	0.13	0.170	0.221
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 0	DSI 0	349000	1745	24.36	25.50	1.300	-	-	0.01	0.099	0.129
	FR1 n66	40M	QPSK	1	108	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	349000	1745	16.79	17.60	1.205	-	-	0.01	0.601	0.724
	FR1 n66	40M	QPSK	1	108	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	349000	1745	16.79	17.60	1.205	-	-	-0.02	0.796	0.959
	FR1 n66	40M	QPSK	1	108	DFT-15	Left Cheek	0mm	Ant 1	DSI 0	349000	1745	16.79	17.60	1.205	-	-	-0.16	0.439	0.529
	FR1 n66	40M	QPSK	1	108	DFT-15	Left Tilted	0mm	Ant 1	DSI 0	349000	1745	16.79	17.60	1.205	-	-	0.01	0.560	0.675
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	349000	1745	16.78	17.60	1.208	-	-	0.19	0.597	0.721



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11	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	349000	1745	16.78	17.60	1.208	-	-	0.11	0.822	0.993
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 1	DSI 0	349000	1745	16.78	17.60	1.208	-	-	-0.09	0.440	0.531
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 1	DSI 0	349000	1745	16.78	17.60	1.208	-	-	0.18	0.563	0.680
	FR1 n66(EN-DC)	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	349000	1745	14.12	15.10	1.253	-	-	0.07	0.372	0.466
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	349000	1745	16.66	17.60	1.242	-	-	-0.05	0.613	0.761
	FR1 n66	40M	QPSK	1	108	DFT-15	Right Cheek	0mm	Ant 2	DSI 0	349000	1745	20.85	21.60	1.189	-	-	0.06	0.753	0.895
	FR1 n66	40M	QPSK	1	108	DFT-15	Right Tilted	0mm	Ant 2	DSI 0	349000	1745	20.85	21.60	1.189	-	-	0.19	0.186	0.221
	FR1 n66	40M	QPSK	1	108	DFT-15	Left Cheek	0mm	Ant 2	DSI 0	349000	1745	20.85	21.60	1.189	-	-	0.16	0.363	0.431
	FR1 n66	40M	QPSK	1	108	DFT-15	Left Tilted	0mm	Ant 2	DSI 0	349000	1745	20.85	21.60	1.189	-	-	0.16	0.237	0.282
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 0	349000	1745	20.83	21.60	1.194	-	-	0.11	0.755	0.901
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 2	DSI 0	349000	1745	20.83	21.60	1.194	-	-	0.07	0.185	0.221
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 2	DSI 0	349000	1745	20.83	21.60	1.194	-	-	-0.08	0.363	0.433
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 2	DSI 0	349000	1745	20.83	21.60	1.194	-	-	0.05	0.239	0.285
	FR1 n66(EN-DC)	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 2	DSI 0	349000	1745	18.95	19.60	1.161	-	-	-0.15	0.452	0.525
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 2	DSI 0	349000	1745	20.82	21.60	1.197	-	-	0.07	0.732	0.876
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Right Cheek	0mm	Ant 3	DSI 0	349000	1745	23.15	23.70	1.135	-	-	-0.05	0.090	0.102
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Right Tilted	0mm	Ant 3	DSI 0	349000	1745	23.15	23.70	1.135	-	-	0.15	0.088	0.100
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Left Cheek	0mm	Ant 3	DSI 0	349000	1745	23.15	23.70	1.135	-	-	-0.08	0.169	0.192
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Left Tilted	0mm	Ant 3	DSI 0	349000	1745	23.15	23.70	1.135	-	-	0.17	0.079	0.090
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 3	DSI 0	349000	1745	23.12	23.70	1.143	-	-	-0.06	0.087	0.099
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 3	DSI 0	349000	1745	23.12	23.70	1.143	-	-	0.02	0.085	0.097
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 3	DSI 0	349000	1745	23.12	23.70	1.143	-	-	0.02	0.166	0.190
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 3	DSI 0	349000	1745	23.12	23.70	1.143	-	-	0.17	0.078	0.089
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 0	DSI 0	661	1880	23.93	24.50	1.140	-	-	0.19	0.057	0.065
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Right Tilted	0mm	Ant 0	DSI 0	661	1880	23.93	24.50	1.140	-	-	-0.18	0.070	0.080
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Left Cheek	0mm	Ant 0	DSI 0	661	1880	23.93	24.50	1.140	-	-	0.01	0.092	0.105
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Left Tilted	0mm	Ant 0	DSI 0	661	1880	23.93	24.50	1.140	-	-	-0.01	0.059	0.067
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 2	DSI 0	661	1880	23.97	24.50	1.130	-	-	-0.04	0.820	0.926
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Right Tilted	0mm	Ant 2	DSI 0	661	1880	23.97	24.50	1.130	-	-	-0.08	0.242	0.273
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Left Cheek	0mm	Ant 2	DSI 0	661	1880	23.97	24.50	1.130	-	-	0.02	0.367	0.415
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Left Tilted	0mm	Ant 2	DSI 0	661	1880	23.97	24.50	1.130	-	-	-0.03	0.237	0.268
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 2	DSI 0	512	1850.2	23.86	24.50	1.159	-	-	0.13	0.689	0.798
12	GSM1900	-	-	-	-	GPRS (4 TX slots)	Right Cheek	0mm	Ant 2	DSI 0	810	1909.8	23.95	24.50	1.135	-	-	0.01	0.891	1.011
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 0	9400	1880	23.89	24.50	1.151	-	-	-0.04	0.119	0.137
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 0	9400	1880	23.89	24.50	1.151	-	-	0.16	0.153	0.176
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 0	9400	1880	23.89	24.50	1.151	-	-	0.02	0.178	0.205
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 0	9400	1880	23.89	24.50	1.151	-	-	-0.1	0.106	0.122
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	9400	1880	20.57	21.50	1.239	-	-	-0.01	0.706	0.875
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 0	9400	1880	20.57	21.50	1.239	-	-	-0.02	0.200	0.248
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 0	9400	1880	20.57	21.50	1.239	-	-	-0.05	0.342	0.424
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 0	9400	1880	20.57	21.50	1.239	-	-	-0.05	0.169	0.209
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	9262	1852.4	20.54	21.50	1.247	-	-	0.06	0.698	0.871
13	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 0	9538	1907.6	20.53	21.50	1.250	-	-	-0.13	0.846	1.058
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	18900	1880	23.16	24.00	1.213	-	-	-0.12	0.106	0.129
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	18900	1880	23.16	24.00	1.213	-	-	-0.1	0.077	0.093
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	18900	1880	23.16	24.00	1.213	-	-	0.03	0.133	0.161
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	18900	1880	23.16	24.00	1.213	-	-	-0.01	0.056	0.068
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 0	18900	1880	22.15	23.00	1.216	-	-	0.03	0.085	0.103
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 0	18900	1880	22.15	23.00	1.216	-	-	-0.12	0.058	0.071
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 0	18900	1880	22.15	23.00	1.216	-	-	-0.05	0.122	0.148
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 0	18900	1880	22.15	23.00	1.216	-	-	-0.07	0.046	0.056
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	18900	1880	13.60	14.70	1.288	-	-	0.13	0.204	0.263
14	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	18900	1880	13.60	14.70	1.288	-	-	0.06	0.391	0.504
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	18900	1880	13.60	14.70	1.288	-	-	-0.14	0.155	0.200
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	18900	1880	13.60	14.70	1.288	-	-	0.09	0.212	0.273
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	18900	1880	12.65	13.50	1.216	-	-	-0.11	0.409	0.497



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	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	18900	1880	13.59	14.70	1.291	-	-	-0.11	0.207	0.267
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	18900	1880	13.59	14.70	1.291	-	-	0.04	0.376	0.485
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 0	18900	1880	13.59	14.70	1.291	-	-	0.03	0.166	0.214
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 0	18900	1880	13.59	14.70	1.291	-	-	-0.15	0.220	0.284
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	18900	1880	23.20	24.50	1.349	-	-	0.02	0.070	0.094
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 0	18900	1880	23.20	24.50	1.349	-	-	0.11	0.072	0.097
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	18900	1880	23.20	24.50	1.349	-	-	-0.06	0.110	0.148
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 0	18900	1880	23.20	24.50	1.349	-	-	-0.08	0.055	0.074
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	18900	1880	22.21	23.50	1.346	-	-	0.03	0.057	0.077
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 0	18900	1880	22.21	23.50	1.346	-	-	0.08	0.058	0.078
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	18900	1880	22.21	23.50	1.346	-	-	0.04	0.091	0.122
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 0	18900	1880	22.21	23.50	1.346	-	-	-0.07	0.043	0.058
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	21100	2535	24.87	25.50	1.156	-	-	-0.11	0.551	0.637
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	21100	2535	24.87	25.50	1.156	-	-	-0.01	0.379	0.438
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	21100	2535	24.87	25.50	1.156	-	-	-0.17	0.312	0.361
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	21100	2535	24.87	25.50	1.156	-	-	0.11	0.283	0.327
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	21100	2535	24.81	25.50	1.172	-	-	0.11	0.509	0.597
	LTE Band 7(EN-DC)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	21100	2535	22.93	24.50	1.435	-	-	-0.04	0.344	0.494
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 0	21100	2535	23.92	24.50	1.143	-	-	0.06	0.442	0.505
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 0	21100	2535	23.92	24.50	1.143	-	-	-0.14	0.285	0.326
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 0	21100	2535	23.92	24.50	1.143	-	-	0.13	0.242	0.277
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 0	21100	2535	23.92	24.50	1.143	-	-	0.12	0.215	0.246
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	21100	2535	17.08	17.70	1.153	-	-	-0.15	0.302	0.348
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	21100	2535	17.08	17.70	1.153	-	-	0.11	0.359	0.414
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	21100	2535	17.08	17.70	1.153	-	-	0.02	0.249	0.287
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	21100	2535	17.08	17.70	1.153	-	-	-0.18	0.296	0.341
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	21100	2535	17.04	17.70	1.164	-	-	0.02	0.308	0.359
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	21100	2535	17.04	17.70	1.164	-	-	-0.13	0.378	0.440
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 0	21100	2535	17.04	17.70	1.164	-	-	-0.1	0.250	0.291
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 0	21100	2535	17.04	17.70	1.164	-	-	-0.04	0.307	0.357
	LTE Band 7C	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	21100	2535	16.98	17.70	1.180	-	-	0.04	0.366	0.432
	LTE Band 7(EN-DC/UL-CA)	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	21100	2535	17.64	18.50	1.219	-	-	0.08	0.401	0.489
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	21100	2535	19.34	20.10	1.191	-	-	-0.13	0.789	0.940
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	21100	2535	19.34	20.10	1.191	-	-	0.16	0.213	0.254
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	21100	2535	19.34	20.10	1.191	-	-	-0.04	0.277	0.330
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	21100	2535	19.34	20.10	1.191	-	-	0.19	0.128	0.152
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	20850	2510	19.25	20.10	1.216	-	-	0.05	0.822	1.000
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	21350	2560	19.31	20.10	1.199	-	-	0.13	0.877	1.052
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	21100	2535	19.32	20.10	1.197	-	-	0.13	0.775	0.927
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	21100	2535	19.32	20.10	1.197	-	-	0.13	0.207	0.248
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	21100	2535	19.32	20.10	1.197	-	-	0.02	0.283	0.339
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	21100	2535	19.32	20.10	1.197	-	-	-0.15	0.128	0.153
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	20850	2510	19.18	20.10	1.236	-	-	0.07	0.848	1.048
15	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	21350	2560	19.27	20.10	1.211	-	-	-0.13	0.901	1.091
	LTE Band 7C	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	21350	2560	18.91	20.10	1.315	-	-	-0.07	0.825	1.085
	LTE Band 7(EN-DC)	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	21350	2560	17.01	18.50	1.409	-	-	-0.12	0.380	0.536
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 0	21100	2535	19.28	20.10	1.208	-	-	0.02	0.757	0.914
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	21100	2535	23.25	24.10	1.216	-	-	0.14	0.127	0.154
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 0	21100	2535	23.25	24.10	1.216	-	-	0.08	0.112	0.136
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	21100	2535	23.25	24.10	1.216	-	-	-0.15	0.172	0.209
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 0	21100	2535	23.25	24.10	1.216	-	-	0.19	0.066	0.080
	LTE Band 7C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	21100	2535	23.21	24.10	1.227	-	-	0.12	0.142	0.174
	LTE Band 7(EN-DC/UL-CA)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	21100	2535	24.57	25.50	1.239	-	-	0.07	0.152	0.188
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	21100	2535	22.32	23.10	1.197	-	-	0.18	0.109	0.130
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 0	21100	2535	22.32	23.10	1.197	-	-	-0.1	0.095	0.114
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	21100	2535	22.32	23.10	1.197	-	-	-0.11	0.147	0.176

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	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 0	21100	2535	22.32	23.10	1.197	-	-	-0.01	0.055	0.066
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	38000	2595	20.68	21.70	1.265	62.9	1.006	0.16	0.203	0.258
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	38000	2595	20.68	21.70	1.265	62.9	1.006	0.08	0.124	0.158
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	38000	2595	20.68	21.70	1.265	62.9	1.006	-0.14	0.117	0.149
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	38000	2595	20.68	21.70	1.265	62.9	1.006	-0.15	0.103	0.131
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 0	38000	2595	20.64	21.70	1.276	62.9	1.006	-0.01	0.196	0.252
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 0	38000	2595	20.64	21.70	1.276	62.9	1.006	0.03	0.122	0.157
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 0	38000	2595	20.64	21.70	1.276	62.9	1.006	0.11	0.113	0.145
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 0	38000	2595	20.64	21.70	1.276	62.9	1.006	-0.12	0.102	0.131
16	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	38000	2595	16.10	17.20	1.288	62.9	1.006	-0.05	0.398	0.516
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	38000	2595	16.10	17.20	1.288	62.9	1.006	-0.05	0.121	0.157
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	38000	2595	16.10	17.20	1.288	62.9	1.006	0.02	0.146	0.189
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	38000	2595	16.10	17.20	1.288	62.9	1.006	0.06	0.068	0.088
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	38000	2595	16.08	17.20	1.294	62.9	1.006	0.17	0.373	0.486
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	38000	2595	16.08	17.20	1.294	62.9	1.006	0.18	0.117	0.152
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	38000	2595	16.08	17.20	1.294	62.9	1.006	-0.12	0.152	0.198
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	38000	2595	16.08	17.20	1.294	62.9	1.006	-0.12	0.069	0.090
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	38000	2595	21.76	22.80	1.271	62.9	1.006	0.09	0.077	0.098
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 0	38000	2595	21.76	22.80	1.271	62.9	1.006	0.09	0.059	0.075
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	38000	2595	21.76	22.80	1.271	62.9	1.006	0.05	0.111	0.142
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 0	38000	2595	21.76	22.80	1.271	62.9	1.006	-0.02	0.045	0.058
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	38000	2595	21.74	22.80	1.276	62.9	1.006	0.14	0.075	0.096
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 0	38000	2595	21.74	22.80	1.276	62.9	1.006	-0.11	0.055	0.071
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	38000	2595	21.74	22.80	1.276	62.9	1.006	-0.01	0.112	0.144
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 0	38000	2595	21.74	22.80	1.276	62.9	1.006	-0.07	0.043	0.055
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	40620	2593	24.91	25.50	1.146	62.9	1.006	0.09	0.321	0.370
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 0	40620	2593	24.91	25.50	1.146	62.9	1.006	-0.17	0.229	0.264
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 0	40620	2593	24.91	25.50	1.146	62.9	1.006	-0.13	0.225	0.259
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 0	40620	2593	24.91	25.50	1.146	62.9	1.006	0.02	0.214	0.247
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	40620 +40818	2593 +2612.8	24.86	25.50	1.159	62.9	1.006	-0.05	0.286	0.333
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 0	40620	2593	20.70	21.30	1.148	62.9	1.006	-0.09	0.250	0.289
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 0	40620	2593	23.89	24.50	1.151	62.9	1.006	-0.08	0.258	0.299
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 0	DSI 0	40620	2593	23.89	24.50	1.151	62.9	1.006	0.07	0.183	0.212
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 0	40620	2593	23.89	24.50	1.151	62.9	1.006	-0.11	0.178	0.206
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 0	DSI 0	40620	2593	23.89	24.50	1.151	62.9	1.006	-0.13	0.164	0.190
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	40620	2593	20.94	22.00	1.276	62.9	1.006	0.16	0.552	0.709
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	40620	2593	20.94	22.00	1.276	62.9	1.006	-0.01	0.541	0.695
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 0	40620	2593	20.94	22.00	1.276	62.9	1.006	-0.13	0.341	0.438
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 0	40620	2593	20.94	22.00	1.276	62.9	1.006	0.06	0.383	0.492
17	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	39750	2506	20.88	22.00	1.294	62.9	1.006	0.05	0.811	1.056
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	40185	2549.5	20.66	22.00	1.361	62.9	1.006	0.12	0.517	0.708
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	41055	2636.5	20.64	22.00	1.368	62.9	1.006	-0.13	0.507	0.698
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	41490	2680	20.61	22.00	1.377	62.9	1.006	-0.02	0.538	0.745
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	39750	2506	20.88	22.00	1.294	62.9	1.006	0.06	0.797	1.038
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	40185	2549.5	20.66	22.00	1.361	62.9	1.006	0.19	0.509	0.697
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	41055	2636.5	20.64	22.00	1.368	62.9	1.006	0.02	0.497	0.684
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 0	41490	2680	20.61	22.00	1.377	62.9	1.006	-0.15	0.523	0.725
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	39750 +39948	2506 +2525.8	20.88	22.00	1.294	62.9	1.006	-0.11	0.792	1.031
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 0	39750	2506	17.85	18.50	1.161	62.9	1.006	-0.07	0.460	0.537
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	40620	2593	20.93	22.00	1.279	62.9	1.006	-0.15	0.546	0.703
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	40620	2593	20.93	22.00	1.279	62.9	1.006	0.14	0.534	0.687
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 0	40620	2593	20.93	22.00	1.279	62.9	1.006	0.17	0.339	0.436
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 0	40620	2593	20.93	22.00	1.279	62.9	1.006	0.04	0.378	0.487
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	39750	2506	20.86	22.00	1.300	62.9	1.006	0.01	0.801	1.048
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	40185	2549.5	20.68	22.00	1.355	62.9	1.006	0.12	0.505	0.688
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	41055	2636.5	20.68	22.00	1.355	62.9	1.006	-0.12	0.492	0.671
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 0	41490	2680	20.64	22.00	1.368	62.9	1.006	-0.1	0.533	0.733

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	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	39750	2506	20.86	22.00	1.300	62.9	1.006	-0.03	0.789	1.032
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	40185	2549.5	20.68	22.00	1.355	62.9	1.006	-0.07	0.497	0.678
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	41055	2636.5	20.68	22.00	1.355	62.9	1.006	-0.01	0.483	0.658
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 0	41490	2680	20.64	22.00	1.368	62.9	1.006	0.02	0.524	0.721
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 1	DSI 0	40620	2593	20.91	22.00	1.285	62.9	1.006	0.06	0.540	0.698
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 1	DSI 0	40620	2593	20.91	22.00	1.285	62.9	1.006	0.08	0.532	0.688
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	40620	2593	20.80	22.20	1.380	62.9	1.006	-0.05	0.711	0.987
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 0	40620	2593	20.80	22.20	1.380	62.9	1.006	0.1	0.212	0.294
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 0	40620	2593	20.80	22.20	1.380	62.9	1.006	0.17	0.281	0.390
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 0	40620	2593	20.80	22.20	1.380	62.9	1.006	-0.05	0.096	0.133
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	39750	2506	20.74	22.20	1.400	62.9	1.006	-0.19	0.554	0.780
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	40185	2549.5	20.69	22.20	1.416	62.9	1.006	-0.14	0.423	0.602
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	41055	2636.5	20.72	22.20	1.406	62.9	1.006	0.06	0.507	0.717
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	41490	2680	20.74	22.20	1.400	62.9	1.006	0.09	0.572	0.805
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	40620 +40818	2593 +2612.8	20.74	22.20	1.400	62.9	1.006	-0.09	0.697	0.981
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 0	40620	2593	15.26	16.60	1.361	62.9	1.006	-0.06	0.345	0.473
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	40620	2593	20.78	22.20	1.387	62.9	1.006	-0.04	0.683	0.953
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 0	40620	2593	20.78	22.20	1.387	62.9	1.006	0.06	0.222	0.310
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 0	40620	2593	20.78	22.20	1.387	62.9	1.006	-0.17	0.305	0.425
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 0	40620	2593	20.78	22.20	1.387	62.9	1.006	-0.16	0.096	0.134
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	39750	2506	20.74	22.20	1.400	62.9	1.006	0.01	0.557	0.784
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	40185	2549.5	20.72	22.20	1.406	62.9	1.006	-0.1	0.416	0.588
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	41055	2636.5	20.73	22.20	1.403	62.9	1.006	-0.15	0.524	0.739
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 0	41490	2680	20.70	22.20	1.413	62.9	1.006	0.1	0.582	0.827
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 2	DSI 0	40620	2593	20.71	22.20	1.409	62.9	1.006	-0.11	0.677	0.960
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 0	40620	2593	23.53	24.50	1.250	62.9	1.006	-0.13	0.096	0.121
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 0	40620	2593	23.53	24.50	1.250	62.9	1.006	0.09	0.068	0.086
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	40620	2593	23.53	24.50	1.250	62.9	1.006	0.16	0.141	0.177
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 0	40620	2593	23.53	24.50	1.250	62.9	1.006	0.08	0.042	0.053
	LTE Band 41C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	40620 +40818	2593 +2612.8	23.48	24.50	1.265	62.9	1.006	0.06	0.115	0.146
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 0	40620	2593	21.90	22.30	1.096	62.9	1.006	-0.13	0.089	0.098
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 0	40620	2593	22.53	23.50	1.250	62.9	1.006	0.12	0.080	0.101
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 0	40620	2593	22.53	23.50	1.250	62.9	1.006	-0.18	0.056	0.070
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 0	40620	2593	22.53	23.50	1.250	62.9	1.006	0.07	0.115	0.145
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 0	40620	2593	22.53	23.50	1.250	62.9	1.006	0.05	0.035	0.044
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	507000	2535	24.77	25.50	1.183	-	-	0.09	0.694	0.821
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 0	507000	2535	24.77	25.50	1.183	-	-	-0.06	0.355	0.420
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 0	507000	2535	24.77	25.50	1.183	-	-	0.03	0.313	0.370
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 0	507000	2535	24.77	25.50	1.183	-	-	-0.17	0.262	0.310
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	507000	2535	24.72	25.50	1.197	-	-	-0.15	0.712	0.852
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 0	DSI 0	507000	2535	24.72	25.50	1.197	-	-	0.08	0.375	0.449
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 0	DSI 0	507000	2535	24.72	25.50	1.197	-	-	0.05	0.331	0.396
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 0	DSI 0	507000	2535	24.72	25.50	1.197	-	-	0.12	0.280	0.335
	FR1 n7(EN-DC)	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	507000	2535	22.84	23.50	1.164	-	-	0.01	0.450	0.524
	FR1 n7	50M	QPSK	270	0	DFT-15	Right Cheek	0mm	Ant 0	DSI 0	507000	2535	23.70	24.50	1.202	-	-	-0.09	0.565	0.679
	FR1 n7	50M	QPSK	1	135	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	507000	2535	18.71	20.10	1.377	-	-	-0.19	0.676	0.931
	FR1 n7	50M	QPSK	1	135	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	507000	2535	18.71	20.10	1.377	-	-	0.12	0.695	0.957
	FR1 n7	50M	QPSK	1	135	DFT-15	Left Cheek	0mm	Ant 1	DSI 0	507000	2535	18.71	20.10	1.377	-	-	-0.17	0.462	0.636
	FR1 n7	50M	QPSK	1	135	DFT-15	Left Tilted	0mm	Ant 1	DSI 0	507000	2535	18.71	20.10	1.377	-	-	-0.1	0.560	0.771
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	507000	2535	18.65	20.10	1.396	-	-	-0.17	0.688	0.961
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	507000	2535	18.65	20.10	1.396	-	-	-0.08	0.701	0.979
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 1	DSI 0	507000	2535	18.65	20.10	1.396	-	-	0.05	0.463	0.647
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 1	DSI 0	507000	2535	18.65	20.10	1.396	-	-	-0.01	0.567	0.792
	FR1 n7(EN-DC)	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	507000	2535	16.28	17.60	1.355	-	-	-0.05	0.389	0.527
	FR1 n7	50M	QPSK	270	0	DFT-15	Right Cheek	0mm	Ant 1	DSI 0	507000	2535	18.62	20.10	1.406	-	-	-0.11	0.552	0.776
	FR1 n7	50M	QPSK	270	0	DFT-15	Right Tilted	0mm	Ant 1	DSI 0	507000	2535	18.62	20.10	1.406	-	-	0.07	0.558	0.785
18	FR1 n7	50M	QPSK	1	135	DFT-15	Right Cheek	0mm	Ant 2	DSI 0	507000	2535	17.47	19.20	1.489	-	-	-0.08	0.684	1.019



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	FR1 n7	50M	QPSK	1	135	DFT-15	Right Tilted	0mm	Ant 2	DSI 0	507000	2535	17.47	19.20	1.489	-	-	0.06	0.228	0.340
	FR1 n7	50M	QPSK	1	135	DFT-15	Left Cheek	0mm	Ant 2	DSI 0	507000	2535	17.47	19.20	1.489	-	-	0.03	0.280	0.417
	FR1 n7	50M	QPSK	1	135	DFT-15	Left Tilted	0mm	Ant 2	DSI 0	507000	2535	17.47	19.20	1.489	-	-	-0.02	0.126	0.188
	FR1 n7(EN-DC)	50M	QPSK	1	135	DFT-15	Right Cheek	0mm	Ant 2	DSI 0	507000	2535	14.99	16.70	1.483	-	-	0.15	0.338	0.501
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 2	DSI 0	507000	2535	17.42	19.20	1.507	-	-	0.04	0.669	1.008
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 2	DSI 0	507000	2535	17.42	19.20	1.507	-	-	0.08	0.230	0.347
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 2	DSI 0	507000	2535	17.42	19.20	1.507	-	-	0.18	0.267	0.402
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 2	DSI 0	507000	2535	17.42	19.20	1.507	-	-	0.02	0.127	0.191
	FR1 n7	50M	QPSK	270	0	DFT-15	Right Cheek	0mm	Ant 2	DSI 0	507000	2535	17.35	19.20	1.531	-	-	0.15	0.653	1.000
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 0	507000	2535	23.56	24.70	1.300	-	-	0.17	0.111	0.144
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI 0	507000	2535	23.56	24.70	1.300	-	-	-0.04	0.095	0.124
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI 0	507000	2535	23.56	24.70	1.300	-	-	0.15	0.154	0.200
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI 0	507000	2535	23.56	24.70	1.300	-	-	0.18	0.053	0.069
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 3	DSI 0	507000	2535	23.48	24.70	1.324	-	-	0.12	0.117	0.155
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 3	DSI 0	507000	2535	23.48	24.70	1.324	-	-	-0.04	0.093	0.123
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 3	DSI 0	507000	2535	23.48	24.70	1.324	-	-	-0.16	0.158	0.209
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 3	DSI 0	507000	2535	23.48	24.70	1.324	-	-	-0.12	0.056	0.074
	FR1 n38	40M	QPSK	1	53	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	519000	2595	18.27	19.70	1.390	-	-	0.02	0.742	1.031
	FR1 n38	40M	QPSK	1	53	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	519000	2595	18.27	19.70	1.390	-	-	0.1	0.263	0.366
	FR1 n38	40M	QPSK	1	53	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	519000	2595	18.27	19.70	1.390	-	-	0.19	0.369	0.513
	FR1 n38	40M	QPSK	1	53	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	519000	2595	18.27	19.70	1.390	-	-	0.05	0.164	0.228
19	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	519000	2595	18.24	19.70	1.400	-	-	-0.03	0.750	1.050
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	519000	2595	18.24	19.70	1.400	-	-	0.14	0.271	0.379
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	519000	2595	18.24	19.70	1.400	-	-	-0.19	0.385	0.539
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	519000	2595	18.24	19.70	1.400	-	-	-0.17	0.172	0.241
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	519000	2595	18.21	19.70	1.409	-	-	0.11	0.724	1.020
	FR1 n41	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 0	DSI 0	518598	2592.99	24.87	25.50	1.156	-	-	-0.06	0.715	0.827
	FR1 n41	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 0	DSI 0	518598	2592.99	24.87	25.50	1.156	-	-	-0.17	0.361	0.417
	FR1 n41	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 0	DSI 0	518598	2592.99	24.87	25.50	1.156	-	-	0.12	0.343	0.397
	FR1 n41	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 0	DSI 0	518598	2592.99	24.87	25.50	1.156	-	-	-0.04	0.324	0.375
	FR1 n41(EN-DC)	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 0	DSI 0	518598	2592.99	22.63	23.50	1.222	-	-	-0.11	0.431	0.527
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	DSI 0	518598	2592.99	24.78	25.50	1.180	-	-	0.09	0.697	0.823
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	DSI 0	518598	2592.99	24.78	25.50	1.180	-	-	0.18	0.358	0.423
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	DSI 0	518598	2592.99	24.78	25.50	1.180	-	-	0.1	0.337	0.398
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	DSI 0	518598	2592.99	24.78	25.50	1.180	-	-	-0.03	0.321	0.379
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 0	DSI 0	518598	2592.99	23.56	24.50	1.242	-	-	0.12	0.553	0.687
	FR1 n41	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 1	DSI 0	518598	2592.99	18.70	19.90	1.318	-	-	0.01	0.568	0.749
20	FR1 n41	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 1	DSI 0	518598	2592.99	18.70	19.90	1.318	-	-	0.19	0.682	0.899
	FR1 n41	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 1	DSI 0	518598	2592.99	18.70	19.90	1.318	-	-	-0.16	0.388	0.511
	FR1 n41	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 1	DSI 0	518598	2592.99	18.70	19.90	1.318	-	-	-0.12	0.432	0.569
	FR1 n41(EN-DC)	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 1	DSI 0	518598	2592.99	16.15	17.40	1.334	-	-	-0.14	0.368	0.491
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 1	DSI 0	518598	2592.99	18.68	19.90	1.324	-	-	0.11	0.571	0.756
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 1	DSI 0	518598	2592.99	18.68	19.90	1.324	-	-	-0.13	0.672	0.890
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 1	DSI 0	518598	2592.99	18.68	19.90	1.324	-	-	-0.12	0.373	0.494
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 1	DSI 0	518598	2592.99	18.68	19.90	1.324	-	-	-0.1	0.421	0.558
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 1	DSI 0	518598	2592.99	18.64	19.90	1.337	-	-	0.07	0.565	0.755
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 1	DSI 0	518598	2592.99	18.64	19.90	1.337	-	-	-0.03	0.669	0.894
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	518598	2592.99	15.88	17.20	1.355	-	-	0.07	0.387	0.524
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	518598	2592.99	15.88	17.20	1.355	-	-	-0.1	0.123	0.167
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	518598	2592.99	15.88	17.20	1.355	-	-	0.16	0.153	0.207
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	518598	2592.99	15.88	17.20	1.355	-	-	-0.01	0.071	0.096
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	518598	2592.99	15.84	17.20	1.368	-	-	0.19	0.368	0.503
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	518598	2592.99	15.84	17.20	1.368	-	-	-0.15	0.121	0.165
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	518598	2592.99	15.84	17.20	1.368	-	-	0.18	0.159	0.217
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	518598	2592.99	15.84	17.20	1.368	-	-	0.07	0.072	0.098
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 3	DSI 0	518598	2592.99	23.57	24.60	1.268	-	-	0.02	0.155	0.196
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 3	DSI 0	518598	2592.99	23.57	24.60	1.268	-	-	0.14	0.106	0.134



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FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 3	DSI 0	518598	2592.99	23.57	24.60	1.268	-	-	0.05	0.208	0.264
FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 3	DSI 0	518598	2592.99	23.57	24.60	1.268	-	-	0.04	0.065	0.082
FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 0	518598	2592.99	23.53	24.60	1.279	-	-	0.1	0.158	0.202
FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI 0	518598	2592.99	23.53	24.60	1.279	-	-	0.04	0.110	0.141
FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI 0	518598	2592.99	23.53	24.60	1.279	-	-	-0.03	0.197	0.252
FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI 0	518598	2592.99	23.53	24.60	1.279	-	-	-0.05	0.068	0.087
3500-3900MHz																			
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	633332	3499.98	15.37	15.90	1.130	-	-	0.09	0.853	0.964
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	633332	3499.98	15.37	15.90	1.130	-	-	-0.11	0.158	0.179
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	633332	3499.98	15.37	15.90	1.130	-	-	-0.13	0.355	0.401
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	633332	3499.98	15.37	15.90	1.130	-	-	0.18	0.080	0.090
FR1 n77_PC2	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	633332	3499.98	17.91	18.90	1.256	50	1.000	0.15	0.829	1.041
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	633332	3499.98	15.35	15.90	1.135	-	-	0.09	0.834	0.947
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	633332	3499.98	15.35	15.90	1.135	-	-	-0.01	0.143	0.162
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	633332	3499.98	15.35	15.90	1.135	-	-	-0.1	0.376	0.427
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	633332	3499.98	15.35	15.90	1.135	-	-	-0.15	0.083	0.094
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	633332	3499.98	15.33	15.90	1.140	-	-	0.04	0.832	0.949
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	656000	3840	15.16	15.90	1.186	-	-	-0.08	0.525	0.623
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	656000	3840	15.16	15.90	1.186	-	-	0.01	0.118	0.140
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	656000	3840	15.16	15.90	1.186	-	-	-0.17	0.228	0.270
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	656000	3840	15.16	15.90	1.186	-	-	0.07	0.057	0.068
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	656000	3840	15.14	15.90	1.191	-	-	-0.02	0.538	0.641
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	656000	3840	15.14	15.90	1.191	-	-	0.11	0.125	0.149
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	656000	3840	15.14	15.90	1.191	-	-	-0.19	0.236	0.281
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	656000	3840	15.14	15.90	1.191	-	-	-0.13	0.060	0.071
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	656000	3840	15.12	15.90	1.197	-	-	0.11	0.503	0.602
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	633332	3499.98	18.95	19.80	1.216	-	-	-0.19	0.202	0.246
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	633332	3499.98	18.95	19.80	1.216	-	-	0.17	0.261	0.317
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	633332	3499.98	18.95	19.80	1.216	-	-	-0.11	0.176	0.214
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	633332	3499.98	18.95	19.80	1.216	-	-	-0.19	0.312	0.379
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	633332	3499.98	18.91	19.80	1.227	-	-	-0.1	0.200	0.245
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	633332	3499.98	18.91	19.80	1.227	-	-	0.15	0.280	0.344
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	633332	3499.98	18.91	19.80	1.227	-	-	-0.17	0.205	0.252
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	633332	3499.98	18.91	19.80	1.227	-	-	0.12	0.328	0.403
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	656000	3840	18.68	19.80	1.294	-	-	0.02	0.422	0.546
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	656000	3840	18.68	19.80	1.294	-	-	-0.15	0.493	0.638
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	656000	3840	18.68	19.80	1.294	-	-	0.11	0.518	0.670
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	656000	3840	18.68	19.80	1.294	-	-	-0.17	0.653	0.845
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	656000	3840	18.63	19.80	1.309	-	-	-0.01	0.403	0.528
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	656000	3840	18.63	19.80	1.309	-	-	-0.08	0.472	0.618
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	656000	3840	18.63	19.80	1.309	-	-	-0.12	0.533	0.698
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	656000	3840	18.63	19.80	1.309	-	-	-0.12	0.654	0.856
FR1 n77_PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	656000	3840	21.49	22.80	1.352	50	1.000	0.19	0.668	0.903
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	656000	3840	18.57	19.80	1.327	-	-	-0.01	0.394	0.523
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	656000	3840	18.57	19.80	1.327	-	-	0.11	0.466	0.619
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	656000	3840	18.57	19.80	1.327	-	-	0.04	0.512	0.680
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	656000	3840	18.57	19.80	1.327	-	-	-0.16	0.638	0.847
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.96	17.50	1.132	-	-	-0.18	0.876	0.992
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.96	17.50	1.132	-	-	-0.17	0.536	0.607
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.96	17.50	1.132	-	-	-0.18	0.342	0.387
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.96	17.50	1.132	-	-	-0.13	0.327	0.370
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.91	17.50	1.146	-	-	-0.17	0.898	1.029
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.91	17.50	1.146	-	-	-0.1	0.555	0.636
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.91	17.50	1.146	-	-	0.19	0.349	0.400
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	633332	3499.98	16.91	17.50	1.146	-	-	0.08	0.338	0.387
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	16.88	17.50	1.153	-	-	0.01	0.847	0.977
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	656000	3840	16.96	17.50	1.132	-	-	0.12	0.864	0.978
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	656000	3840	16.96	17.50	1.132	-	-	0.11	0.517	0.585

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	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	656000	3840	16.96	17.50	1.132	-	-	0.04	0.326	0.369
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	656000	3840	16.96	17.50	1.132	-	-	0.1	0.319	0.361
21	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	656000	3840	16.94	17.50	1.138	-	-	0.02	0.918	1.044
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	656000	3840	16.94	17.50	1.138	-	-	-0.12	0.502	0.571
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	656000	3840	16.94	17.50	1.138	-	-	-0.15	0.347	0.395
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	656000	3840	16.94	17.50	1.138	-	-	-0.11	0.330	0.375
	FR1 n77_PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	656000	3840	19.96	20.50	1.132	50	1.000	-0.02	0.861	0.975
	FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	656000	3840	16.89	17.50	1.151	-	-	0.07	0.833	0.959
	FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	656000	3840	16.89	17.50	1.151	-	-	0.16	0.494	0.568
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.63	17.30	1.167	-	-	-0.06	0.304	0.355
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.63	17.30	1.167	-	-	0.08	0.299	0.349
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.63	17.30	1.167	-	-	-0.16	0.785	0.916
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.63	17.30	1.167	-	-	0.15	0.482	0.562
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.61	17.30	1.172	-	-	-0.18	0.313	0.367
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.61	17.30	1.172	-	-	-0.04	0.305	0.358
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.61	17.30	1.172	-	-	0.06	0.787	0.923
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	633332	3499.98	16.61	17.30	1.172	-	-	-0.15	0.478	0.560
	FR1 n77_PC2	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	19.51	20.30	1.199	50	1.000	-0.02	0.766	0.919
	FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.58	17.30	1.180	-	-	-0.11	0.762	0.899
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	656000	3840	16.28	17.30	1.265	-	-	-0.04	0.220	0.278
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	656000	3840	16.28	17.30	1.265	-	-	0.09	0.208	0.263
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	656000	3840	16.28	17.30	1.265	-	-	0.04	0.628	0.794
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	656000	3840	16.28	17.30	1.265	-	-	-0.09	0.439	0.555
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	656000	3840	16.27	17.30	1.268	-	-	0.09	0.227	0.288
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	656000	3840	16.27	17.30	1.268	-	-	-0.12	0.215	0.273
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	656000	3840	16.27	17.30	1.268	-	-	0.02	0.685	0.868
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	656000	3840	16.27	17.30	1.268	-	-	0.02	0.453	0.574
	FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	656000	3840	16.29	17.30	1.262	-	-	-0.16	0.616	0.777
	FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	656000	3840	16.29	17.30	1.262	-	-	0.08	0.432	0.545
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	633332	3499.98	11.86	12.90	1.271	-	-	0.05	0.383	0.487
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	633332	3499.98	11.86	12.90	1.271	-	-	-0.13	0.067	0.085
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	633332	3499.98	11.86	12.90	1.271	-	-	-0.03	0.172	0.219
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	633332	3499.98	11.86	12.90	1.271	-	-	0.07	0.038	0.048
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	633332	3499.98	11.83	12.90	1.279	-	-	-0.13	0.397	0.508
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	633332	3499.98	11.83	12.90	1.279	-	-	-0.16	0.069	0.088
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	633332	3499.98	11.83	12.90	1.279	-	-	-0.02	0.180	0.230
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	633332	3499.98	11.83	12.90	1.279	-	-	0.04	0.037	0.047
	FR1 n78_PC2(EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	633332	3499.98	14.65	15.90	1.334	50	1.000	-0.13	0.367	0.489
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	650000	3750	11.72	12.90	1.312	-	-	-0.1	0.226	0.297
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	650000	3750	11.72	12.90	1.312	-	-	0.07	0.047	0.062
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	650000	3750	11.72	12.90	1.312	-	-	0.08	0.099	0.130
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	650000	3750	11.72	12.90	1.312	-	-	-0.18	0.026	0.034
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 0	650000	3750	11.69	12.90	1.321	-	-	0.04	0.225	0.297
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 0	650000	3750	11.69	12.90	1.321	-	-	-0.02	0.044	0.058
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 0	650000	3750	11.69	12.90	1.321	-	-	-0.13	0.095	0.126
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 0	650000	3750	11.69	12.90	1.321	-	-	0.13	0.024	0.032
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	633332	3499.98	19.43	20.30	1.222	-	-	-0.04	0.173	0.211
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	633332	3499.98	19.43	20.30	1.222	-	-	0.05	0.222	0.271
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	633332	3499.98	19.43	20.30	1.222	-	-	-0.18	0.184	0.225
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	633332	3499.98	19.43	20.30	1.222	-	-	0.18	0.295	0.360
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	633332	3499.98	19.38	20.30	1.236	-	-	-0.18	0.182	0.225
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	633332	3499.98	19.38	20.30	1.236	-	-	-0.04	0.239	0.295
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	633332	3499.98	19.38	20.30	1.236	-	-	0.01	0.183	0.226
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	633332	3499.98	19.38	20.30	1.236	-	-	0.07	0.303	0.374
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	650000	3750	19.07	20.30	1.327	-	-	0.1	0.349	0.463
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	650000	3750	19.07	20.30	1.327	-	-	-0.06	0.416	0.552
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	650000	3750	19.07	20.30	1.327	-	-	-0.12	0.469	0.623



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	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	650000	3750	19.07	20.30	1.327	-	-	0.17	0.598	0.794
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 0	650000	3750	19.04	20.30	1.337	-	-	-0.15	0.351	0.469
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 0	650000	3750	19.04	20.30	1.337	-	-	-0.16	0.412	0.551
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 0	650000	3750	19.04	20.30	1.337	-	-	-0.04	0.475	0.635
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	650000	3750	19.04	20.30	1.337	-	-	-0.16	0.623	0.833
	FR1 n78_PC2	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	650000	3750	21.96	23.30	1.361	50	1.000	0.01	0.597	0.813
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	650000	3750	17.48	18.80	1.355	-	-	0.04	0.392	0.531
	FR1 n78_PC2(EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	650000	3750	20.52	21.80	1.343	50	1.000	-0.17	0.390	0.524
	FR1 n78_PC3	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 4	DSI 0	650000	3750	18.98	20.30	1.355	-	-	0.17	0.588	0.797
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	17.40	18.00	1.148	-	-	-0.03	0.892	1.024
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	633332	3499.98	17.40	18.00	1.148	-	-	-0.07	0.580	0.666
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	633332	3499.98	17.40	18.00	1.148	-	-	0.14	0.350	0.402
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	633332	3499.98	17.40	18.00	1.148	-	-	0.02	0.326	0.374
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	17.26	18.00	1.186	-	-	0.15	0.869	1.030
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	633332	3499.98	17.26	18.00	1.186	-	-	0.19	0.572	0.678
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	633332	3499.98	17.26	18.00	1.186	-	-	-0.06	0.341	0.404
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	633332	3499.98	17.26	18.00	1.186	-	-	0.12	0.335	0.397
22	FR1 n78_PC2	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	20.34	21.00	1.164	50	1.000	0.15	0.897	1.044
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	15.32	16.00	1.169	-	-	0.13	0.445	0.520
	FR1 n78_PC2(EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	18.24	19.00	1.191	50	1.000	0.19	0.443	0.528
	FR1 n78	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	633332	3499.98	17.24	18.00	1.191	-	-	-0.15	0.851	1.014
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	650000	3750	17.33	18.00	1.167	-	-	-0.1	0.802	0.936
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	650000	3750	17.33	18.00	1.167	-	-	-0.18	0.462	0.539
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	650000	3750	17.33	18.00	1.167	-	-	0.06	0.289	0.337
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	650000	3750	17.33	18.00	1.167	-	-	0.09	0.283	0.330
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	650000	3750	17.31	18.00	1.172	-	-	0.12	0.818	0.959
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 0	650000	3750	17.31	18.00	1.172	-	-	-0.15	0.466	0.546
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 0	650000	3750	17.31	18.00	1.172	-	-	0.02	0.304	0.356
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 0	650000	3750	17.31	18.00	1.172	-	-	0.13	0.296	0.347
	FR1 n78_PC3	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 0	650000	3750	17.13	18.00	1.222	-	-	-0.06	0.798	0.975
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	633332	3499.98	13.71	14.30	1.146	-	-	-0.02	0.165	0.189
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	633332	3499.98	13.71	14.30	1.146	-	-	0.14	0.160	0.183
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	13.71	14.30	1.146	-	-	-0.07	0.410	0.470
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	633332	3499.98	13.71	14.30	1.146	-	-	0.04	0.242	0.277
	FR1 n78_PC2(EN-DC)	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	16.69	17.30	1.151	50	1.000	-0.09	0.392	0.451
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	633332	3499.98	13.68	14.30	1.153	-	-	-0.04	0.164	0.189
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	633332	3499.98	13.68	14.30	1.153	-	-	0.03	0.161	0.186
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	633332	3499.98	13.68	14.30	1.153	-	-	0.12	0.405	0.467
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	633332	3499.98	13.68	14.30	1.153	-	-	0.04	0.239	0.276
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	650000	3750	13.36	14.30	1.242	-	-	-0.18	0.118	0.147
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	650000	3750	13.36	14.30	1.242	-	-	0.17	0.109	0.135
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	650000	3750	13.36	14.30	1.242	-	-	-0.08	0.378	0.469
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	650000	3750	13.36	14.30	1.242	-	-	-0.03	0.195	0.242
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 0	650000	3750	13.33	14.30	1.250	-	-	0.05	0.116	0.145
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 0	650000	3750	13.33	14.30	1.250	-	-	0.17	0.112	0.140
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 0	650000	3750	13.33	14.30	1.250	-	-	-0.05	0.373	0.466
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 0	650000	3750	13.33	14.30	1.250	-	-	0.04	0.208	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)
2450MHz																
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	0.07	0.079	0.135
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	0.11	0.066	0.113
23	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	-0.03	0.165	0.282
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	-0.04	0.139	0.238
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Full	1	2412	17.93	19.50	1.435	99.6	1.004	-0.07	0.128	0.184
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	Full	1	2412	17.93	19.50	1.435	99.6	1.004	0.07	0.141	0.203
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Full	1	2412	17.93	19.50	1.435	99.6	1.004	0.12	0.305	0.440
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	Full	1	2412	17.93	19.50	1.435	99.6	1.004	-0.14	0.290	0.418
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Simultaneous	1	2412	12.93	14.00	1.279	99.6	1.004	-0.11	0.093	0.119
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 8	Full	1	2412	18.38	19.50	1.294	99.6	1.004	0.07	0.254	0.330
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 8	Full	1	2412	18.38	19.50	1.294	99.6	1.004	0.04	0.135	0.175
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 8	Full	1	2412	18.38	19.50	1.294	99.6	1.004	-0.02	0.691	0.898
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 8	Full	1	2412	18.38	19.50	1.294	99.6	1.004	-0.09	0.261	0.339
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 8	Full	6	2437	17.58	19.00	1.387	99.6	1.004	-0.12	0.642	0.894
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 8	Simultaneous	1	2412	13.01	14.00	1.256	99.6	1.004	-0.14	0.176	0.222
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7+8	Full	1	2412	21.17	22.50	1.358	99.6	1.004	0.12	0.329	0.449
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7+8	Full	1	2412	21.17	22.50	1.358	99.6	1.004	-0.11	0.171	0.233
24	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+8	Full	1	2412	21.17	22.50	1.358	99.6	1.004	0.01	0.762	1.039
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7+8	Full	1	2412	21.17	22.50	1.358	99.6	1.004	0.09	0.331	0.451
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+8	Full	6	2437	20.45	22.00	1.429	99.6	1.004	0.03	0.705	1.011
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+8	Simultaneous	1	2412	15.98	17.00	1.265	99.6	1.004	-0.11	0.197	0.250
5000MHz--6000MHz																
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 8	Standalone	54	5270	13.48	15.00	1.419	93.32	1.072	0.01	0.093	0.141
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 8	Standalone	54	5270	13.48	15.00	1.419	93.32	1.072	0.13	0.073	0.111
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 8	Standalone	54	5270	13.48	15.00	1.419	93.32	1.072	-0.12	0.206	0.313
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 8	Standalone	54	5270	13.48	15.00	1.419	93.32	1.072	-0.11	0.086	0.131
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Simultaneous	58	5290	7.77	9.50	1.489	88.19	1.134	-0.03	0.057	0.096
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 7+8	Standalone	54	5270	16.37	18.00	1.455	93.32	1.072	-0.16	0.286	0.446
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 7+8	Standalone	54	5270	16.37	18.00	1.455	93.32	1.072	-0.19	0.356	0.555
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 7+8	Standalone	54	5270	16.37	18.00	1.455	93.32	1.072	0.05	0.453	0.706
25	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 7+8	Standalone	54	5270	16.37	18.00	1.455	93.32	1.072	-0.07	0.605	0.944
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 7+8	Standalone	62	5310	15.51	17.00	1.408	93.32	1.072	0.04	0.483	0.729
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 7+8	Simultaneous	58	5290	10.53	12.50	1.575	88.19	1.134	0.15	0.126	0.225
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 8	Full	100	5500	15.56	16.00	1.107	96.78	1.033	-0.12	0.119	0.136
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 8	Full	100	5500	15.56	16.00	1.107	96.78	1.033	-0.01	0.086	0.098
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 8	Full	100	5500	15.56	16.00	1.107	96.78	1.033	-0.07	0.315	0.360
	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 8	Full	100	5500	15.56	16.00	1.107	96.78	1.033	-0.16	0.107	0.122
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Simultaneous	106	5530	11.42	11.50	1.019	88.19	1.134	-0.12	0.142	0.164
	WLAN5.5GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 7+8	Full	100	5500	18.06	18.50	1.107	96.78	1.033	0.08	0.288	0.329
	WLAN5.5GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 7+8	Full	100	5500	18.06	18.50	1.107	96.78	1.033	0.12	0.368	0.421
	WLAN5.5GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 7+8	Full	100	5500	18.06	18.50	1.107	96.78	1.033	0.15	0.404	0.462
26	WLAN5.5GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 7+8	Full	100	5500	18.06	18.50	1.107	96.78	1.033	0.03	0.511	0.584
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 7+8	Simultaneous	106	5530	13.97	14.50	1.130	88.19	1.134	0.13	0.189	0.242
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8	Standalone	155	5775	13.65	15.00	1.365	88.19	1.134	-0.13	0.086	0.133
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Standalone	155	5775	13.65	15.00	1.365	88.19	1.134	0.03	0.070	0.108
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Standalone	155	5775	13.65	15.00	1.365	88.19	1.134	0.01	0.144	0.223
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Standalone	155	5775	13.65	15.00	1.365	88.19	1.134	0.12	0.082	0.127
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Simultaneous	155	5775	7.76	9.00	1.330	88.19	1.134	-0.07	0.035	0.053
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 7+8	Standalone	155	5775	16.59	18.00	1.383	88.19	1.134	-0.14	0.259	0.406
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 7+8	Standalone	155	5775	16.59	18.00	1.383	88.19	1.134	0.09	0.456	0.715
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 7+8	Standalone	155	5775	16.59	18.00	1.383	88.19	1.134	0.14	0.538	0.844
27	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 7+8	Standalone	155	5775	16.59	18.00	1.383	88.19	1.134	0.09	0.655	1.027
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 7+8	Simultaneous	155	5775	10.67	12.00	1.358	88.19	1.134	0.05	0.144	0.222



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	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)		
750MHz																				
28	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	23095	707.5	24.65	25.50	1.216	-0.1	0.124	0.151		
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	23095	707.5	24.65	25.50	1.216	0.07	0.211	0.257		
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	23095	707.5	24.65	25.50	1.216	-0.15	0.146	0.178		
	LTE Band 12	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	23095	707.5	24.65	25.50	1.216	-0.06	0.134	0.163		
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	23095	707.5	24.65	25.50	1.216	-0.16	0.108	0.131		
	LTE Band 12(EN-DC)	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	23095	707.5	24.51	25.50	1.256	0.09	0.193	0.242		
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 4	23095	707.5	23.70	24.50	1.202	-0.12	0.104	0.125		
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 4	23095	707.5	23.70	24.50	1.202	0.06	0.174	0.209		
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	DSI 4	23095	707.5	23.70	24.50	1.202	0.15	0.117	0.141		
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 4	23095	707.5	23.70	24.50	1.202	0.19	0.105	0.126		
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 4	23095	707.5	23.70	24.50	1.202	0.19	0.090	0.108		
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	23095	707.5	23.63	24.80	1.309	-0.16	0.112	0.147		
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	23095	707.5	23.63	24.80	1.309	-0.03	0.165	0.216		
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	23095	707.5	23.63	24.80	1.309	0.04	0.115	0.151		
	LTE Band 12	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	23095	707.5	23.63	24.80	1.309	-0.05	0.142	0.186		
	LTE Band 12(EN-DC)	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	23095	707.5	22.30	23.50	1.318	0.09	0.155	0.204		
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 4	23095	707.5	22.77	23.80	1.268	0.09	0.095	0.120		
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 4	23095	707.5	22.77	23.80	1.268	0.14	0.144	0.183		
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 4	23095	707.5	22.77	23.80	1.268	0.09	0.096	0.122		
	LTE Band 12	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	DSI 4	23095	707.5	22.77	23.80	1.268	0.19	0.116	0.147		
29	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	23230	782	24.46	25.50	1.271	-0.05	0.040	0.051		
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	23230	782	24.46	25.50	1.271	-0.15	0.062	0.079		
	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	23230	782	24.46	25.50	1.271	0.06	0.016	0.020		
	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	23230	782	24.46	25.50	1.271	0.03	0.012	0.015		
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	23230	782	24.46	25.50	1.271	-0.16	0.048	0.061		
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 4	23230	782	23.38	24.50	1.294	0.09	0.033	0.043		
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 4	23230	782	23.38	24.50	1.294	0.05	0.048	0.062		
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	DSI 4	23230	782	23.38	24.50	1.294	0.08	0.014	0.018		
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 4	23230	782	23.38	24.50	1.294	-0.15	0.009	0.012		
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 4	23230	782	23.38	24.50	1.294	0.03	0.038	0.049		
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	23230	782	23.88	24.90	1.265	0.03	0.139	0.176		
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	23230	782	23.88	24.90	1.265	0.02	0.187	0.237		
	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	23230	782	23.88	24.90	1.265	-0.04	0.110	0.139		
	LTE Band 13	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	23230	782	23.88	24.90	1.265	0.12	0.130	0.164		
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 4	23230	782	22.79	23.90	1.291	-0.05	0.104	0.134		
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 4	23230	782	22.79	23.90	1.291	-0.16	0.148	0.191		
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 4	23230	782	22.79	23.90	1.291	0.05	0.081	0.105		
	LTE Band 13	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	DSI 4	23230	782	22.79	23.90	1.291	0.19	0.104	0.134		
	835MHz																			
	30	GSM850	-	-	-	-	GPRS (4 TX slots)	Front	10mm	Ant 0	DSI 4	189	836.4	26.96	27.50	1.132	-0.01	0.118	0.134	
GSM850		-	-	-	-	GPRS (4 TX slots)	Back	10mm	Ant 0	DSI 4	189	836.4	26.96	27.50	1.132	0.01	0.240	0.272		
GSM850		-	-	-	-	GPRS (4 TX slots)	Left Side	10mm	Ant 0	DSI 4	189	836.4	26.96	27.50	1.132	0.04	0.103	0.117		
GSM850		-	-	-	-	GPRS (4 TX slots)	Right Side	10mm	Ant 0	DSI 4	189	836.4	26.96	27.50	1.132	-0.16	0.090	0.102		
GSM850		-	-	-	-	GPRS (4 TX slots)	Bottom Side	10mm	Ant 0	DSI 4	189	836.4	26.96	27.50	1.132	-0.04	0.147	0.166		
GSM850		-	-	-	-	GPRS (4 TX slots)	Front	10mm	Ant 1	DSI 4	189	836.4	26.73	27.50	1.194	0.1	0.220	0.263		
GSM850		-	-	-	-	GPRS (4 TX slots)	Back	10mm	Ant 1	DSI 4	189	836.4	26.73	27.50	1.194	-0.06	0.329	0.393		
GSM850		-	-	-	-	GPRS (4 TX slots)	Left Side	10mm	Ant 1	DSI 4	189	836.4	26.73	27.50	1.194	0.08	0.118	0.141		
GSM850		-	-	-	-	GPRS (4 TX slots)	Top Side	10mm	Ant 1	DSI 4	189	836.4	26.73	27.50	1.194	0.18	0.261	0.312		
GSM850		-	-	-	-	GPRS (4 TX slots)	Bottom Side	10mm	Ant 1	DSI 4	189	836.4	26.73	27.50	1.194	0.18	0.261	0.312		
30	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 4	4182	836.4	24.31	25.00	1.172	0.1	0.101	0.118		
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 4	4182	836.4	24.31	25.00	1.172	0.09	0.230	0.270		
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 4	4182	836.4	24.31	25.00	1.172	-0.02	0.090	0.105		



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	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 4	4182	836.4	24.31	25.00	1.172	0.02	0.081	0.095
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	4182	836.4	24.31	25.00	1.172	-0.16	0.155	0.182
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 4	4182	836.4	23.42	24.50	1.282	-0.15	0.216	0.277
31	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 4	4182	836.4	23.42	24.50	1.282	0.04	0.319	0.409
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 4	4182	836.4	23.42	24.50	1.282	0.06	0.106	0.136
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 1	DSI 4	4182	836.4	23.42	24.50	1.282	-0.14	0.272	0.349
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	20525	836.5	23.69	24.70	1.262	0.08	0.089	0.112
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	20525	836.5	23.69	24.70	1.262	0.13	0.192	0.242
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	20525	836.5	23.69	24.70	1.262	-0.01	0.088	0.111
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	20525	836.5	23.69	24.70	1.262	0.09	0.083	0.105
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	20525	836.5	23.69	24.70	1.262	0.11	0.128	0.162
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 4	20525	836.5	23.67	24.70	1.268	-0.06	0.087	0.110
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 4	20525	836.5	23.67	24.70	1.268	0.18	0.188	0.238
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	DSI 4	20525	836.5	23.67	24.70	1.268	-0.01	0.084	0.106
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Right Side	10mm	Ant 0	DSI 4	20525	836.5	23.67	24.70	1.268	0.06	0.080	0.101
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 4	20525	836.5	23.67	24.70	1.268	0.07	0.125	0.158
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	20525	836.5	20.27	21.50	1.327	-0.09	0.122	0.162
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	20525	836.5	20.27	21.50	1.327	-0.07	0.188	0.250
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	20525	836.5	20.27	21.50	1.327	-0.13	0.080	0.106
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	20525	836.5	20.27	21.50	1.327	-0.05	0.140	0.186
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 4	20525	836.5	20.20	21.50	1.349	-0.15	0.126	0.170
32	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 4	20525	836.5	20.20	21.50	1.349	0.06	0.192	0.259
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 4	20525	836.5	20.20	21.50	1.349	0.03	0.083	0.112
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Top Side	10mm	Ant 1	DSI 4	20525	836.5	20.20	21.50	1.349	0.16	0.146	0.197
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	26865	831.5	24.45	25.50	1.274	-0.16	0.115	0.146
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	26865	831.5	24.45	25.50	1.274	-0.04	0.224	0.285
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	26865	831.5	24.45	25.50	1.274	-0.03	0.108	0.138
	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	26865	831.5	24.45	25.50	1.274	-0.15	0.102	0.130
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	26865	831.5	24.45	25.50	1.274	-0.14	0.142	0.181
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	DSI 4	26865	831.5	23.41	24.50	1.285	0.09	0.092	0.118
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	DSI 4	26865	831.5	23.41	24.50	1.285	-0.13	0.179	0.230
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 0	DSI 4	26865	831.5	23.41	24.50	1.285	0.08	0.082	0.105
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 0	DSI 4	26865	831.5	23.41	24.50	1.285	-0.15	0.078	0.100
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 0	DSI 4	26865	831.5	23.41	24.50	1.285	-0.17	0.112	0.144
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	26865	831.5	23.64	24.90	1.337	-0.14	0.153	0.204
33	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	26865	831.5	23.64	24.90	1.337	0.08	0.238	0.318
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	26865	831.5	23.64	24.90	1.337	0.11	0.086	0.115
	LTE Band 26	15M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	26865	831.5	23.64	24.90	1.337	-0.12	0.189	0.253
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	DSI 4	26865	831.5	23.13	24.40	1.340	-0.08	0.150	0.201
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	DSI 4	26865	831.5	23.13	24.40	1.340	0.16	0.224	0.300
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 1	DSI 4	26865	831.5	23.13	24.40	1.340	-0.18	0.083	0.111
	LTE Band 26	15M	QPSK	36	0	-	Top Side	10mm	Ant 1	DSI 4	26865	831.5	23.13	24.40	1.340	0.08	0.175	0.234
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 4	167300	836.5	24.61	25.50	1.227	0.06	0.114	0.140
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 4	167300	836.5	24.61	25.50	1.227	0.1	0.211	0.259
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 4	167300	836.5	24.61	25.50	1.227	0.01	0.092	0.113
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 0	DSI 4	167300	836.5	24.61	25.50	1.227	0.04	0.081	0.099
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	DSI 4	167300	836.5	24.61	25.50	1.227	-0.06	0.139	0.171
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	DSI 4	167300	836.5	24.53	25.50	1.250	0.03	0.109	0.136
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	DSI 4	167300	836.5	24.53	25.50	1.250	0.01	0.208	0.260
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	DSI 4	167300	836.5	24.53	25.50	1.250	-0.01	0.090	0.113
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 0	DSI 4	167300	836.5	24.53	25.50	1.250	0.03	0.079	0.099
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 0	DSI 4	167300	836.5	24.53	25.50	1.250	-0.06	0.135	0.169
	FR1 n5	20M	QPSK	1	53	DFT-15	Front	10mm	Ant 1	DSI 4	167300	836.5	23.80	24.80	1.259	-0.14	0.172	0.217
34	FR1 n5	20M	QPSK	1	53	DFT-15	Back	10mm	Ant 1	DSI 4	167300	836.5	23.80	24.80	1.259	0.06	0.307	0.386
	FR1 n5	20M	QPSK	1	53	DFT-15	Left Side	10mm	Ant 1	DSI 4	167300	836.5	23.80	24.80	1.259	0.19	0.089	0.112
	FR1 n5	20M	QPSK	1	53	DFT-15	Top Side	10mm	Ant 1	DSI 4	167300	836.5	23.80	24.80	1.259	-0.01	0.196	0.247



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	FR1 n5(EN-DC)	20M	QPSK	1	53	DFT-15	Back	10mm	Ant 1	DSI 4	167300	836.5	20.56	21.80	1.330	-0.08	0.170	0.226	
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	DSI 4	167300	836.5	23.74	24.80	1.276	0.09	0.169	0.216	
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	DSI 4	167300	836.5	23.74	24.80	1.276	0.05	0.290	0.370	
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 1	DSI 4	167300	836.5	23.74	24.80	1.276	-0.13	0.085	0.108	
	FR1 n5	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 1	DSI 4	167300	836.5	23.74	24.80	1.276	-0.01	0.191	0.244	
1750MHz																			
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 4	1413	1732.6	20.20	21.00	1.202	0.11	0.297	0.357	
35	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 4	1413	1732.6	20.20	21.00	1.202	0.02	0.712	0.856	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 4	1413	1732.6	20.20	21.00	1.202	-0.1	0.063	0.076	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 4	1413	1732.6	20.20	21.00	1.202	0.05	0.112	0.135	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	1413	1732.6	20.20	21.00	1.202	0.03	0.694	0.834	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 4	1312	1712.4	20.18	21.00	1.208	0.04	0.691	0.835	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 4	1513	1752.6	20.19	21.00	1.205	0.07	0.705	0.850	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	1312	1712.4	20.18	21.00	1.208	0.04	0.677	0.818	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	1513	1752.6	20.19	21.00	1.205	0.07	0.673	0.811	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	DSI 4	1413	1732.6	21.38	22.50	1.294	0.08	0.191	0.247	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	DSI 4	1413	1732.6	21.38	22.50	1.294	0.1	0.348	0.450	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI 4	1413	1732.6	21.38	22.50	1.294	-0.13	0.421	0.545	
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 2	DSI 4	1413	1732.6	21.38	22.50	1.294	0.01	0.077	0.100	
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	20175	1732.5	18.19	19.00	1.205	0.09	0.183	0.221	
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	20175	1732.5	18.19	19.00	1.205	0.18	0.445	0.536	
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	20175	1732.5	18.19	19.00	1.205	0.03	0.021	0.025	
	LTE Band 4	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	20175	1732.5	18.19	19.00	1.205	-0.16	0.061	0.074	
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	20175	1732.5	18.19	19.00	1.205	-0.05	0.432	0.521	
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	20175	1732.5	18.12	19.00	1.225	-0.01	0.183	0.224	
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	20175	1732.5	18.12	19.00	1.225	0.02	0.439	0.538	
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 4	20175	1732.5	18.12	19.00	1.225	-0.16	0.026	0.032	
	LTE Band 4	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 4	20175	1732.5	18.12	19.00	1.225	-0.15	0.060	0.073	
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	20175	1732.5	18.12	19.00	1.225	-0.18	0.428	0.524	
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	20175	1732.5	17.01	18.10	1.285	0.01	0.183	0.235	
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	20175	1732.5	17.01	18.10	1.285	-0.12	0.446	0.573	
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	20175	1732.5	17.01	18.10	1.285	0.06	0.023	0.030	
	LTE Band 4	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	20175	1732.5	17.01	18.10	1.285	-0.16	0.484	0.622	
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	20175	1732.5	16.90	18.10	1.318	0.01	0.189	0.249	
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	20175	1732.5	16.90	18.10	1.318	-0.12	0.450	0.593	
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	20175	1732.5	16.90	18.10	1.318	0.09	0.026	0.034	
36	LTE Band 4	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	20175	1732.5	16.90	18.10	1.318	0.11	0.500	0.659	
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	20175	1732.5	18.76	19.60	1.213	0.07	0.113	0.137	
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	20175	1732.5	18.76	19.60	1.213	-0.13	0.215	0.261	
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	20175	1732.5	18.76	19.60	1.213	0.13	0.249	0.302	
	LTE Band 4	20M	QPSK	1	0	-	Top Side	10mm	Ant 2	DSI 4	20175	1732.5	18.76	19.60	1.213	-0.19	0.039	0.047	
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	20175	1732.5	18.73	19.60	1.222	0.05	0.118	0.144	
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	20175	1732.5	18.73	19.60	1.222	-0.07	0.217	0.265	
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	20175	1732.5	18.73	19.60	1.222	0.18	0.250	0.305	
	LTE Band 4	20M	QPSK	50	0	-	Top Side	10mm	Ant 2	DSI 4	20175	1732.5	18.73	19.60	1.222	-0.12	0.043	0.053	
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	20175	1732.5	21.97	22.60	1.156	0.05	0.174	0.201	
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	20175	1732.5	21.97	22.60	1.156	-0.08	0.271	0.313	
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	20175	1732.5	21.97	22.60	1.156	-0.17	0.352	0.407	
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 4	20175	1732.5	21.97	22.60	1.156	-0.02	0.104	0.120	
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	20175	1732.5	21.80	22.60	1.202	0.01	0.180	0.216	
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	20175	1732.5	21.80	22.60	1.202	0.08	0.269	0.323	
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	20175	1732.5	21.80	22.60	1.202	-0.01	0.358	0.430	
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 4	20175	1732.5	21.80	22.60	1.202	0.13	0.103	0.124	
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	132322	1745	20.15	21.00	1.216	-0.05	0.275	0.334	
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	132322	1745	20.15	21.00	1.216	-0.03	0.694	0.844	
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	132322	1745	20.15	21.00	1.216	-0.08	0.062	0.075	



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	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	132322	1745	20.15	21.00	1.216	-0.07	0.100	0.122
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	132322	1745	20.15	21.00	1.216	0.07	0.688	0.837
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	132072	1720	20.09	21.00	1.233	0.04	0.643	0.793
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	132572	1770	20.11	21.00	1.227	0.13	0.681	0.836
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	132072	1720	20.09	21.00	1.233	-0.08	0.632	0.779
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	132572	1770	20.11	21.00	1.227	-0.14	0.667	0.819
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	132322	1745	20.10	21.00	1.230	-0.18	0.288	0.354
37	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	132322	1745	20.10	21.00	1.230	-0.07	0.717	0.882
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 4	132322	1745	20.10	21.00	1.230	-0.02	0.072	0.089
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 4	132322	1745	20.10	21.00	1.230	0.14	0.104	0.128
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	132322	1745	20.10	21.00	1.230	0.14	0.704	0.866
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	132072	1720	19.97	21.00	1.268	0.05	0.665	0.843
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	132572	1770	19.99	21.00	1.262	0.11	0.693	0.874
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	132072	1720	19.97	21.00	1.268	0.08	0.648	0.821
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	132572	1770	19.99	21.00	1.262	-0.12	0.683	0.862
	LTE Band 66(EN-DC)	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	132322	1745	18.15	19.70	1.429	-0.13	0.364	0.520
	LTE Band 66	20M	QPSK	100	0	-	Back	10mm	Ant 0	DSI 4	132322	1745	19.99	21.00	1.262	0.06	0.688	0.868
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 0	DSI 4	132322	1745	19.99	21.00	1.262	0.04	0.676	0.853
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	132322	1745	16.86	18.00	1.300	0.15	0.182	0.237
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	132322	1745	16.86	18.00	1.300	-0.19	0.437	0.568
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	132322	1745	16.86	18.00	1.300	0.15	0.035	0.046
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	132322	1745	16.86	18.00	1.300	-0.02	0.521	0.677
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	132322	1745	16.84	18.00	1.306	0.12	0.185	0.242
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	132322	1745	16.84	18.00	1.306	0.18	0.446	0.583
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	132322	1745	16.84	18.00	1.306	0.14	0.038	0.050
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	132322	1745	16.84	18.00	1.306	0.17	0.533	0.696
	LTE Band 66(EN-DC)	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	132322	1745	17.15	18.00	1.216	0.03	0.048	0.059
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	132322	1745	21.31	22.20	1.227	-0.1	0.197	0.242
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	132322	1745	21.31	22.20	1.227	0.17	0.358	0.439
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	132322	1745	21.31	22.20	1.227	0.04	0.446	0.547
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 2	DSI 4	132322	1745	21.31	22.20	1.227	-0.18	0.085	0.104
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	132322	1745	21.24	22.20	1.247	0.02	0.202	0.252
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	132322	1745	21.24	22.20	1.247	0.07	0.370	0.462
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	132322	1745	21.24	22.20	1.247	-0.04	0.466	0.581
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 2	DSI 4	132322	1745	21.24	22.20	1.247	-0.11	0.088	0.110
	LTE Band 66(EN-DC)	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	132322	1745	19.93	20.70	1.194	-0.02	0.143	0.171
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	132322	1745	21.92	22.50	1.143	-0.01	0.140	0.160
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	132322	1745	21.92	22.50	1.143	0.17	0.222	0.254
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	132322	1745	21.92	22.50	1.143	-0.05	0.298	0.341
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 4	132322	1745	21.92	22.50	1.143	-0.19	0.098	0.112
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	132322	1745	21.78	22.50	1.180	-0.06	0.143	0.169
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	132322	1745	21.78	22.50	1.180	0.18	0.233	0.275
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	132322	1745	21.78	22.50	1.180	0.07	0.308	0.364
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 4	132322	1745	21.78	22.50	1.180	0.02	0.104	0.123
	LTE Band 66(EN-DC)	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	132322	1745	22.58	22.70	1.028	-0.12	0.173	0.178
	FR1 n66	40M	QPSK	1	108	DFT-15	Front	10mm	Ant 0	DSI 4	349000	1745	19.77	21.00	1.327	0.02	0.243	0.323
	FR1 n66	40M	QPSK	1	108	DFT-15	Back	10mm	Ant 0	DSI 4	349000	1745	19.77	21.00	1.327	0.18	0.598	0.794
	FR1 n66	40M	QPSK	1	108	DFT-15	Left Side	10mm	Ant 0	DSI 4	349000	1745	19.77	21.00	1.327	-0.13	0.058	0.077
	FR1 n66	40M	QPSK	1	108	DFT-15	Right Side	10mm	Ant 0	DSI 4	349000	1745	19.77	21.00	1.327	0.01	0.088	0.117
	FR1 n66	40M	QPSK	1	108	DFT-15	Bottom Side	10mm	Ant 0	DSI 4	349000	1745	19.77	21.00	1.327	0.15	0.565	0.750
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 0	DSI 4	349000	1745	19.75	21.00	1.334	-0.12	0.236	0.315
38	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 0	DSI 4	349000	1745	19.75	21.00	1.334	-0.08	0.605	0.807
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 0	DSI 4	349000	1745	19.75	21.00	1.334	0.08	0.059	0.079
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 0	DSI 4	349000	1745	19.75	21.00	1.334	0.1	0.086	0.115
	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 0	DSI 4	349000	1745	19.75	21.00	1.334	0.07	0.567	0.756
	FR1 n66(EN-DC)	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 0	DSI 4	349000	1745	16.84	18.00	1.306	0.19	0.391	0.511



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	FR1 n66	40M	QPSK	216	0	DFT-15	Back	10mm	Ant 0	DSI 4	349000	1745	19.73	21.00	1.340	0.07	0.596	0.798
	FR1 n66	40M	QPSK	1	108	DFT-15	Front	10mm	Ant 1	DSI 4	349000	1745	16.79	17.60	1.205	-0.05	0.147	0.177
	FR1 n66	40M	QPSK	1	108	DFT-15	Back	10mm	Ant 1	DSI 4	349000	1745	16.79	17.60	1.205	-0.02	0.348	0.419
	FR1 n66	40M	QPSK	1	108	DFT-15	Left Side	10mm	Ant 1	DSI 4	349000	1745	16.79	17.60	1.205	0.08	0.046	0.055
	FR1 n66	40M	QPSK	1	108	DFT-15	Top Side	10mm	Ant 1	DSI 4	349000	1745	16.79	17.60	1.205	0.12	0.446	0.537
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 1	DSI 4	349000	1745	16.78	17.60	1.208	0.14	0.153	0.185
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 1	DSI 4	349000	1745	16.78	17.60	1.208	-0.18	0.356	0.430
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 1	DSI 4	349000	1745	16.78	17.60	1.208	-0.06	0.050	0.060
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 1	DSI 4	349000	1745	16.78	17.60	1.208	0.19	0.460	0.556
	FR1 n66(EN-DC)	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 1	DSI 4	349000	1745	14.12	15.10	1.253	0.13	0.258	0.323
	FR1 n66	40M	QPSK	1	108	DFT-15	Front	10mm	Ant 2	DSI 4	349000	1745	20.85	21.60	1.189	0.13	0.147	0.175
	FR1 n66	40M	QPSK	1	108	DFT-15	Back	10mm	Ant 2	DSI 4	349000	1745	20.85	21.60	1.189	-0.18	0.282	0.335
	FR1 n66	40M	QPSK	1	108	DFT-15	Left Side	10mm	Ant 2	DSI 4	349000	1745	20.85	21.60	1.189	-0.04	0.350	0.416
	FR1 n66	40M	QPSK	1	108	DFT-15	Top Side	10mm	Ant 2	DSI 4	349000	1745	20.85	21.60	1.189	-0.18	0.069	0.082
	FR1 n66(EN-DC)	40M	QPSK	1	108	DFT-15	Left Side	10mm	Ant 2	DSI 4	349000	1745	18.96	19.60	1.159	0.08	0.223	0.258
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 2	DSI 4	349000	1745	20.83	21.60	1.194	0.07	0.142	0.170
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 2	DSI 4	349000	1745	20.83	21.60	1.194	0.13	0.265	0.316
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 2	DSI 4	349000	1745	20.83	21.60	1.194	-0.08	0.341	0.407
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 2	DSI 4	349000	1745	20.83	21.60	1.194	0.11	0.064	0.076
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Front	10mm	Ant 3	DSI 4	349000	1745	22.17	22.70	1.130	0.12	0.146	0.165
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Back	10mm	Ant 3	DSI 4	349000	1745	22.17	22.70	1.130	-0.15	0.260	0.294
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Left Side	10mm	Ant 3	DSI 4	349000	1745	22.17	22.70	1.130	0.15	0.300	0.339
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Bottom Side	10mm	Ant 3	DSI 4	349000	1745	22.17	22.70	1.130	0.19	0.121	0.137
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 3	DSI 4	349000	1745	22.15	22.70	1.135	0.08	0.152	0.173
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 3	DSI 4	349000	1745	22.15	22.70	1.135	-0.04	0.263	0.299
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 3	DSI 4	349000	1745	22.15	22.70	1.135	-0.15	0.303	0.344
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 3	DSI 4	349000	1745	22.15	22.70	1.135	-0.04	0.121	0.137

1900MHz

	GSM1900	-	-	-	-	GPRS (4 TX slots)	Front	10mm	Ant 0	DSI 4	661	1880	23.93	24.50	1.140	0.15	0.277	0.316
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Back	10mm	Ant 0	DSI 4	661	1880	23.93	24.50	1.140	0.18	0.493	0.562
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Left Side	10mm	Ant 0	DSI 4	661	1880	23.93	24.50	1.140	-0.15	0.077	0.088
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Right Side	10mm	Ant 0	DSI 4	661	1880	23.93	24.50	1.140	0.07	0.125	0.143
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Bottom Side	10mm	Ant 0	DSI 4	661	1880	23.93	24.50	1.140	0.05	0.738	0.842
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Bottom Side	10mm	Ant 0	DSI 4	512	1850.2	23.84	24.50	1.164	-0.14	0.752	0.875
39	GSM1900	-	-	-	-	GPRS (4 TX slots)	Bottom Side	10mm	Ant 0	DSI 4	810	1909.8	23.89	24.50	1.151	-0.17	0.778	0.895
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Front	10mm	Ant 2	DSI 4	661	1880	23.97	24.50	1.130	0.15	0.294	0.332
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Back	10mm	Ant 2	DSI 4	661	1880	23.97	24.50	1.130	-0.02	0.493	0.557
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Left Side	10mm	Ant 2	DSI 4	661	1880	23.97	24.50	1.130	0.05	0.666	0.752
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Top Side	10mm	Ant 2	DSI 4	661	1880	23.97	24.50	1.130	0.09	0.063	0.071
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 4	9400	1880	21.51	22.00	1.119	0.01	0.321	0.359
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 4	9400	1880	21.51	22.00	1.119	0.02	0.601	0.673
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 4	9400	1880	21.51	22.00	1.119	0.15	0.092	0.103
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 0	DSI 4	9400	1880	21.51	22.00	1.119	0.09	0.140	0.157
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	9400	1880	21.51	22.00	1.119	-0.04	0.827	0.926
40	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	9262	1852.4	21.43	22.00	1.140	0.1	0.853	0.973
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 4	9538	1907.6	21.50	22.00	1.122	0.07	0.806	0.904
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	DSI 4	9400	1880	20.57	21.50	1.239	-0.04	0.234	0.290
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	DSI 4	9400	1880	20.57	21.50	1.239	0.16	0.430	0.533
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI 4	9400	1880	20.57	21.50	1.239	0.14	0.550	0.681
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 2	DSI 4	9400	1880	20.57	21.50	1.239	0.14	0.062	0.077
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	18900	1880	22.01	22.50	1.119	0.16	0.338	0.378
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	18900	1880	22.01	22.50	1.119	0.08	0.679	0.760
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	18900	1880	22.01	22.50	1.119	-0.03	0.086	0.096
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	18900	1880	22.01	22.50	1.119	0.08	0.130	0.146
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	18900	1880	22.01	22.50	1.119	-0.12	0.826	0.925
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	18700	1860	21.91	22.50	1.146	-0.19	0.835	0.957



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	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	19100	1900	21.74	22.50	1.191	-0.03	0.809	0.964
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	18900	1880	21.96	22.50	1.132	0.06	0.344	0.390
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	18900	1880	21.96	22.50	1.132	0.05	0.688	0.779
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 4	18900	1880	21.96	22.50	1.132	0.19	0.089	0.101
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 4	18900	1880	21.96	22.50	1.132	0.14	0.136	0.154
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	18900	1880	21.96	22.50	1.132	-0.04	0.844	0.956
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	18700	1860	21.86	22.50	1.159	-0.07	0.840	0.973
41	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	19100	1900	21.70	22.50	1.202	-0.02	0.815	0.980
	LTE Band 2	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 0	DSI 4	18900	1880	21.88	22.50	1.153	0.04	0.823	0.949
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	18900	1880	13.60	14.70	1.288	-0.15	0.099	0.128
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	18900	1880	13.60	14.70	1.288	0.12	0.240	0.309
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	18900	1880	13.60	14.70	1.288	-0.07	0.018	0.023
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	18900	1880	13.60	14.70	1.288	0.12	0.309	0.398
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	18900	1880	13.59	14.70	1.291	0.12	0.100	0.129
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	18900	1880	13.59	14.70	1.291	-0.08	0.245	0.316
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	18900	1880	13.59	14.70	1.291	-0.04	0.020	0.026
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	18900	1880	13.59	14.70	1.291	0.06	0.323	0.417
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	18900	1880	12.63	13.50	1.222	0.01	0.307	0.375
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	18900	1880	23.20	24.50	1.349	0.13	0.143	0.193
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	18900	1880	23.20	24.50	1.349	-0.06	0.223	0.301
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	18900	1880	23.20	24.50	1.349	0.1	0.276	0.372
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 4	18900	1880	23.20	24.50	1.349	-0.09	0.081	0.109
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	18900	1880	22.21	23.50	1.346	-0.08	0.110	0.148
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	18900	1880	22.21	23.50	1.346	-0.17	0.161	0.217
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	18900	1880	22.21	23.50	1.346	0.1	0.223	0.300
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 4	18900	1880	22.21	23.50	1.346	0.08	0.063	0.085



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Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	21100	2535	22.07	22.50	1.104	-	-	0.01	0.429	0.474
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	21100	2535	22.07	22.50	1.104	-	-	0.17	0.498	0.550
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	21100	2535	22.07	22.50	1.104	-	-	-0.17	0.109	0.120
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	21100	2535	22.07	22.50	1.104	-	-	0.04	0.321	0.354
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	21100	2535	22.07	22.50	1.104	-	-	0.05	0.427	0.471
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	21100	2535	21.94	22.50	1.138	-	-	-0.11	0.436	0.496
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	21100	2535	21.94	22.50	1.138	-	-	0.08	0.505	0.575
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 4	21100	2535	21.94	22.50	1.138	-	-	0.17	0.113	0.129
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 4	21100	2535	21.94	22.50	1.138	-	-	-0.03	0.343	0.390
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	21100	2535	21.94	22.50	1.138	-	-	-0.03	0.436	0.496
	LTE Band 7C	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	21100 +20902	2535 +2515.2	21.89	22.50	1.151	-	-	0.06	0.491	0.565
	LTE Band 7(EN-DC)	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	21100	2535	18.86	20.50	1.459	-	-	0.06	0.362	0.528
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	21100	2535	17.08	17.70	1.153	-	-	-0.12	0.088	0.102
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	21100	2535	17.08	17.70	1.153	-	-	-0.06	0.382	0.441
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	21100	2535	17.08	17.70	1.153	-	-	0.02	0.056	0.065
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	21100	2535	17.08	17.70	1.153	-	-	0.01	0.370	0.427
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	21100	2535	17.04	17.70	1.164	-	-	0.02	0.093	0.108
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	21100	2535	17.04	17.70	1.164	-	-	-0.06	0.390	0.454
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	21100	2535	17.04	17.70	1.164	-	-	-0.01	0.059	0.069
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	21100	2535	17.04	17.70	1.164	-	-	0.03	0.382	0.445
	LTE Band 7C	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	21100 +20902	2535 +2515.2	16.98	17.70	1.180	-	-	-0.02	0.351	0.414
	LTE Band 7(EN-DC/UL-CA)	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	21100	2535	17.64	18.50	1.219	-	-	0.14	0.369	0.450
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	21100	2535	19.34	20.10	1.191	-	-	0.14	0.282	0.336
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	21100	2535	19.34	20.10	1.191	-	-	-0.06	0.545	0.649
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	21100	2535	19.34	20.10	1.191	-	-	-0.1	0.553	0.659
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 2	DSI 4	21100	2535	19.34	20.10	1.191	-	-	-0.01	0.062	0.074
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	21100	2535	19.32	20.10	1.197	-	-	0.17	0.279	0.334
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	21100	2535	19.32	20.10	1.197	-	-	-0.03	0.557	0.667
42	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	21100	2535	19.32	20.10	1.197	-	-	-0.03	0.570	0.682
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 2	DSI 4	21100	2535	19.32	20.10	1.197	-	-	0.17	0.061	0.073
	LTE Band 7C	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	21100 +20902	2535 +2515.2	18.98	20.10	1.294	-	-	-0.19	0.506	0.655
	LTE Band 7(EN-DC)	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	21100	2535	17.09	18.50	1.384	-	-	-0.06	0.166	0.230
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	21100	2535	21.25	22.10	1.216	-	-	0.07	0.244	0.297
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	21100	2535	21.25	22.10	1.216	-	-	0.08	0.327	0.398
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	21100	2535	21.25	22.10	1.216	-	-	-0.01	0.299	0.364
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 4	21100	2535	21.25	22.10	1.216	-	-	0.18	0.102	0.124
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	21100	2535	21.23	22.10	1.222	-	-	-0.12	0.265	0.324
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	21100	2535	21.23	22.10	1.222	-	-	-0.05	0.349	0.426
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	21100	2535	21.23	22.10	1.222	-	-	0.07	0.319	0.390
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 4	21100	2535	21.23	22.10	1.222	-	-	0.13	0.116	0.142
	LTE Band 7C	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	21100 +20902	2535 +2515.2	21.19	22.10	1.233	-	-	0.05	0.319	0.393
	LTE Band 7(EN-DC/UL-CA)	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	21100	2535	22.48	23.50	1.265	-	-	0.01	0.329	0.416
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	38000	2595	19.54	20.70	1.306	62.9	1.006	0.07	0.300	0.394
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	38000	2595	19.54	20.70	1.306	62.9	1.006	0.12	0.376	0.494
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	38000	2595	19.54	20.70	1.306	62.9	1.006	-0.04	0.064	0.084
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	38000	2595	19.54	20.70	1.306	62.9	1.006	0.1	0.243	0.319
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	38000	2595	19.54	20.70	1.306	62.9	1.006	0.19	0.289	0.380
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	38000	2595	19.51	20.70	1.315	62.9	1.006	0.13	0.308	0.408
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	38000	2595	19.51	20.70	1.315	62.9	1.006	0.16	0.384	0.508
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 4	38000	2595	19.51	20.70	1.315	62.9	1.006	-0.16	0.066	0.087
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 4	38000	2595	19.51	20.70	1.315	62.9	1.006	0.16	0.259	0.343
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	38000	2595	19.51	20.70	1.315	62.9	1.006	0.14	0.298	0.394



FCC SAR Test Report

Report No. : FA282002

	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	38000	2595	20.86	22.20	1.361	62.9	1.006	-0.12	0.261	0.357
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	38000	2595	20.86	22.20	1.361	62.9	1.006	-0.08	0.412	0.564
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	38000	2595	20.86	22.20	1.361	62.9	1.006	0.15	0.424	0.581
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 2	DSI 4	38000	2595	20.86	22.20	1.361	62.9	1.006	0.04	0.080	0.110
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	38000	2595	20.81	22.20	1.377	62.9	1.006	-0.11	0.266	0.369
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	38000	2595	20.81	22.20	1.377	62.9	1.006	-0.17	0.426	0.590
43	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	38000	2595	20.81	22.20	1.377	62.9	1.006	-0.06	0.449	0.622
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 2	DSI 4	38000	2595	20.81	22.20	1.377	62.9	1.006	-0.01	0.082	0.114
	LTE Band 38C	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	37901 +38099	2585.1 +2604.9	20.77	22.20	1.390	62.9	1.006	-0.05	0.396	0.554
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	38000	2595	16.08	17.20	1.294	62.9	1.006	0.08	0.253	0.329
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	38000	2595	20.74	21.80	1.276	62.9	1.006	-0.1	0.213	0.274
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	38000	2595	20.74	21.80	1.276	62.9	1.006	-0.12	0.258	0.331
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	38000	2595	20.74	21.80	1.276	62.9	1.006	0.08	0.245	0.315
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 4	38000	2595	20.74	21.80	1.276	62.9	1.006	0.09	0.101	0.130
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	38000	2595	20.71	21.80	1.285	62.9	1.006	0.12	0.223	0.288
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	38000	2595	20.71	21.80	1.285	62.9	1.006	-0.08	0.269	0.348
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	38000	2595	20.71	21.80	1.285	62.9	1.006	-0.12	0.257	0.332
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 4	38000	2595	20.71	21.80	1.285	62.9	1.006	-0.02	0.105	0.136
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	40620	2593	24.39	25.00	1.151	62.9	1.006	-0.15	0.631	0.731
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	40620	2593	24.39	25.00	1.151	62.9	1.006	0.09	0.732	0.847
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 4	40620	2593	24.39	25.00	1.151	62.9	1.006	0.05	0.141	0.163
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 0	DSI 4	40620	2593	24.39	25.00	1.151	62.9	1.006	-0.16	0.478	0.553
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	40620	2593	24.39	25.00	1.151	62.9	1.006	-0.01	0.582	0.674
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	39750	2506	24.30	25.00	1.175	62.9	1.006	-0.15	0.645	0.762
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	40185	2549.5	24.32	25.00	1.169	62.9	1.006	-0.1	0.601	0.707
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	41055	2636.5	24.33	25.00	1.166	62.9	1.006	-0.15	0.723	0.848
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 4	41490	2680	24.34	25.00	1.164	62.9	1.006	0.03	0.642	0.752
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	39750	2506	24.30	25.00	1.175	62.9	1.006	-0.04	0.716	0.846
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	40185	2549.5	24.32	25.00	1.169	62.9	1.006	-0.04	0.725	0.853
44	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	41055	2636.5	24.33	25.00	1.166	62.9	1.006	-0.13	0.854	1.002
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	41490	2680	24.34	25.00	1.164	62.9	1.006	0.05	0.796	0.932
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	39750	2506	24.30	25.00	1.175	62.9	1.006	0.04	0.501	0.592
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	40185	2549.5	24.32	25.00	1.169	62.9	1.006	-0.02	0.494	0.581
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	41055	2636.5	24.33	25.00	1.166	62.9	1.006	0.09	0.537	0.630
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 4	41490	2680	24.34	25.00	1.164	62.9	1.006	0.07	0.495	0.580
	LTE Band 41C	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	41055 +41253	2636.5 +2656.3	24.25	25.00	1.189	62.9	1.006	-0.11	0.811	0.970
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 4	41055	2636.5	20.58	21.30	1.180	62.9	1.006	-0.06	0.487	0.578
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	40620	2593	23.95	24.50	1.135	62.9	1.006	-0.14	0.577	0.659
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	40620	2593	23.95	24.50	1.135	62.9	1.006	0.11	0.658	0.751
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 4	40620	2593	23.95	24.50	1.135	62.9	1.006	-0.07	0.128	0.146
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 0	DSI 4	40620	2593	23.95	24.50	1.135	62.9	1.006	0.02	0.434	0.496
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 0	DSI 4	40620	2593	23.95	24.50	1.135	62.9	1.006	0.02	0.523	0.597
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	39750	2506	23.67	24.50	1.211	62.9	1.006	0.03	0.552	0.672
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	40185	2549.5	23.78	24.50	1.180	62.9	1.006	0.12	0.533	0.633
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	41055	2636.5	23.79	24.50	1.178	62.9	1.006	0.08	0.642	0.761
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 0	DSI 4	41490	2680	23.86	24.50	1.159	62.9	1.006	-0.05	0.561	0.654
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	39750	2506	23.67	24.50	1.211	62.9	1.006	0.05	0.607	0.739
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	40185	2549.5	23.78	24.50	1.180	62.9	1.006	-0.13	0.633	0.752
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	41055	2636.5	23.79	24.50	1.178	62.9	1.006	-0.16	0.768	0.910
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 0	DSI 4	41490	2680	23.86	24.50	1.159	62.9	1.006	0.07	0.689	0.803
	LTE Band 41	20M	QPSK	100	0	-	Front	10mm	Ant 0	DSI 4	40620	2593	23.91	24.50	1.146	62.9	1.006	-0.15	0.561	0.646
	LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 0	DSI 4	40620	2593	23.91	24.50	1.146	62.9	1.006	0.03	0.649	0.748
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 0	DSI 4	40620	2593	23.91	24.50	1.146	62.9	1.006	0.02	0.519	0.598
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 4	40620	2593	20.94	22.00	1.276	62.9	1.006	-0.02	0.121	0.155
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	20.94	22.00	1.276	62.9	1.006	0.02	0.615	0.790
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 4	40620	2593	20.94	22.00	1.276	62.9	1.006	0.13	0.067	0.086

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	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 1	DSI 4	40620	2593	20.94	22.00	1.276	62.9	1.006	-0.14	0.392	0.503
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	39750	2506	20.88	22.00	1.294	62.9	1.006	0.01	0.395	0.514
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	40185	2549.5	20.66	22.00	1.361	62.9	1.006	0.09	0.356	0.488
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	41055	2636.5	20.64	22.00	1.368	62.9	1.006	0.03	0.368	0.506
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 4	41490	2680	20.61	22.00	1.377	62.9	1.006	0.01	0.361	0.500
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 1	DSI 4	40620	2593	20.93	22.00	1.279	62.9	1.006	0.12	0.123	0.158
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	20.93	22.00	1.279	62.9	1.006	-0.09	0.630	0.811
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 4	40620	2593	20.93	22.00	1.279	62.9	1.006	0.12	0.069	0.089
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 1	DSI 4	40620	2593	20.93	22.00	1.279	62.9	1.006	0.09	0.405	0.521
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	39750	2506	20.86	22.00	1.300	62.9	1.006	-0.07	0.401	0.524
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	40185	2549.5	20.68	22.00	1.355	62.9	1.006	0.01	0.351	0.479
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	41055	2636.5	20.68	22.00	1.355	62.9	1.006	0.05	0.375	0.511
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	41490	2680	20.64	22.00	1.368	62.9	1.006	0.07	0.365	0.502
	LTE Band 41C	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	40620 +40818 +2593 +2612.8	2593	20.88	22.00	1.294	62.9	1.006	-0.11	0.592	0.771
	LTE Band 41(EN-DC)	20M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	17.90	18.50	1.148	62.9	1.006	0.08	0.432	0.499
	LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 1	DSI 4	40620	2593	20.91	22.00	1.285	62.9	1.006	0.03	0.604	0.781
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 4	40620	2593	19.57	20.70	1.297	62.9	1.006	-0.06	0.217	0.283
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 4	40620	2593	19.57	20.70	1.297	62.9	1.006	0.05	0.337	0.440
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 4	40620	2593	19.57	20.70	1.297	62.9	1.006	-0.16	0.343	0.448
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 2	DSI 4	40620	2593	19.57	20.70	1.297	62.9	1.006	0.09	0.051	0.067
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 4	40620	2593	19.53	20.70	1.309	62.9	1.006	0.1	0.217	0.286
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 4	40620	2593	19.53	20.70	1.309	62.9	1.006	-0.15	0.354	0.466
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	40620	2593	19.53	20.70	1.309	62.9	1.006	-0.16	0.359	0.473
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 2	DSI 4	40620	2593	19.53	20.70	1.309	62.9	1.006	0.1	0.052	0.068
	LTE Band 41C	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	40620 +40818 +2593 +2612.8	2593	19.50	20.70	1.318	62.9	1.006	0.1	0.336	0.446
	LTE Band 41(EN-DC)	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 4	40620	2593	15.23	16.60	1.371	62.9	1.006	0.14	0.208	0.287
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 4	40620	2593	23.53	24.50	1.250	62.9	1.006	0.1	0.211	0.265
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	40620	2593	23.53	24.50	1.250	62.9	1.006	0.01	0.328	0.413
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 4	40620	2593	23.53	24.50	1.250	62.9	1.006	0.15	0.296	0.372
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 3	DSI 4	40620	2593	23.53	24.50	1.250	62.9	1.006	0.03	0.116	0.146
	LTE Band 41C	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	40620 +40818 +2593 +2612.8	2593	23.48	24.50	1.265	62.9	1.006	-0.06	0.288	0.366
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 4	40620	2593	20.47	20.80	1.079	62.9	1.006	-0.13	0.252	0.274
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 4	40620	2593	22.53	23.50	1.250	62.9	1.006	0.14	0.163	0.205
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 4	40620	2593	22.53	23.50	1.250	62.9	1.006	-0.01	0.251	0.316
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 4	40620	2593	22.53	23.50	1.250	62.9	1.006	-0.16	0.234	0.294
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 3	DSI 4	40620	2593	22.53	23.50	1.250	62.9	1.006	-0.03	0.093	0.117
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 4	507000	2535	21.14	22.00	1.219	-	-	0.1	0.307	0.374
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 4	507000	2535	21.14	22.00	1.219	-	-	-0.14	0.468	0.570
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 4	507000	2535	21.14	22.00	1.219	-	-	0.14	0.080	0.098
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 0	DSI 4	507000	2535	21.14	22.00	1.219	-	-	0.06	0.248	0.302
	FR1 n7	50M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	DSI 4	507000	2535	21.14	22.00	1.219	-	-	0.18	0.293	0.357
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 0	DSI 4	507000	2535	21.11	22.00	1.227	-	-	0.03	0.312	0.383
45	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 0	DSI 4	507000	2535	21.11	22.00	1.227	-	-	0.05	0.480	0.589
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 0	DSI 4	507000	2535	21.11	22.00	1.227	-	-	-0.12	0.083	0.102
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Side	10mm	Ant 0	DSI 4	507000	2535	21.11	22.00	1.227	-	-	0.18	0.259	0.318
	FR1 n7	50M	QPSK	135	68	DFT-15	Bottom Side	10mm	Ant 0	DSI 4	507000	2535	21.11	22.00	1.227	-	-	-0.06	0.306	0.376
	FR1 n7(EN-DC)	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 0	DSI 4	507000	2535	20.60	21.50	1.230	-	-	-0.14	0.433	0.533
	FR1 n7	50M	QPSK	1	135	DFT-15	Front	10mm	Ant 1	DSI 4	507000	2535	18.71	20.10	1.377	-	-	0.13	0.165	0.227
	FR1 n7	50M	QPSK	1	135	DFT-15	Back	10mm	Ant 1	DSI 4	507000	2535	18.71	20.10	1.377	-	-	0.04	0.189	0.260
	FR1 n7	50M	QPSK	1	135	DFT-15	Left Side	10mm	Ant 1	DSI 4	507000	2535	18.71	20.10	1.377	-	-	-0.16	0.135	0.186
	FR1 n7	50M	QPSK	1	135	DFT-15	Top Side	10mm	Ant 1	DSI 4	507000	2535	18.71	20.10	1.377	-	-	-0.02	0.382	0.526
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 1	DSI 4	507000	2535	18.65	20.10	1.396	-	-	0.18	0.168	0.235
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 1	DSI 4	507000	2535	18.65	20.10	1.396	-	-	0.14	0.191	0.267
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 1	DSI 4	507000	2535	18.65	20.10	1.396	-	-	0.14	0.146	0.204
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	10mm	Ant 1	DSI 4	507000	2535	18.65	20.10	1.396	-	-	-0.07	0.398	0.556
	FR1 n7(EN-DC)	50M	QPSK	135	68	DFT-15	Top Side	10mm	Ant 1	DSI 4	507000	2535	16.28	17.60	1.355	-	-	0.08	0.224	0.304

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FCC SAR Test Report

Report No. : FA282002

	FR1 n7	50M	QPSK	1	135	DFT-15	Front	10mm	Ant 2	DSI 4	507000	2535	17.47	19.20	1.489	-	-	-0.07	0.196	0.292
	FR1 n7	50M	QPSK	1	135	DFT-15	Back	10mm	Ant 2	DSI 4	507000	2535	17.47	19.20	1.489	-	-	-0.15	0.326	0.486
	FR1 n7	50M	QPSK	1	135	DFT-15	Left Side	10mm	Ant 2	DSI 4	507000	2535	17.47	19.20	1.489	-	-	-0.12	0.358	0.533
	FR1 n7	50M	QPSK	1	135	DFT-15	Top Side	10mm	Ant 2	DSI 4	507000	2535	17.47	19.20	1.489	-	-	-0.03	0.047	0.070
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 2	DSI 4	507000	2535	17.42	19.20	1.507	-	-	-0.06	0.198	0.298
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 2	DSI 4	507000	2535	17.42	19.20	1.507	-	-	-0.16	0.348	0.524
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 2	DSI 4	507000	2535	17.42	19.20	1.507	-	-	0.14	0.366	0.551
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	10mm	Ant 2	DSI 4	507000	2535	17.42	19.20	1.507	-	-	-0.13	0.045	0.068
	FR1 n7(EN-DC)	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 2	DSI 4	507000	2535	14.96	16.70	1.493	-	-	-0.08	0.217	0.324
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI 4	507000	2535	22.55	23.70	1.303	-	-	-0.04	0.214	0.279
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI 4	507000	2535	22.55	23.70	1.303	-	-	0.13	0.298	0.388
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 4	507000	2535	22.55	23.70	1.303	-	-	0.01	0.243	0.317
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 3	DSI 4	507000	2535	22.55	23.70	1.303	-	-	0.15	0.133	0.173
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Front	10mm	Ant 3	DSI 4	507000	2535	22.52	23.70	1.312	-	-	0.11	0.230	0.302
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Back	10mm	Ant 3	DSI 4	507000	2535	22.52	23.70	1.312	-	-	-0.17	0.337	0.442
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Left Side	10mm	Ant 3	DSI 4	507000	2535	22.52	23.70	1.312	-	-	0.16	0.251	0.329
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Bottom Side	10mm	Ant 3	DSI 4	507000	2535	22.52	23.70	1.312	-	-	0.02	0.139	0.182
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Front	10mm	Ant 0	DSI 4	519000	2595	20.56	21.50	1.242	-	-	0.02	0.295	0.366
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Back	10mm	Ant 0	DSI 4	519000	2595	20.56	21.50	1.242	-	-	0.02	0.412	0.512
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Left Side	10mm	Ant 0	DSI 4	519000	2595	20.56	21.50	1.242	-	-	-0.1	0.069	0.086
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Right Side	10mm	Ant 0	DSI 4	519000	2595	20.56	21.50	1.242	-	-	-0.09	0.246	0.305
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Bottom Side	10mm	Ant 0	DSI 4	519000	2595	20.56	21.50	1.242	-	-	0.05	0.297	0.369
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 0	DSI 4	519000	2595	20.55	21.50	1.245	-	-	-0.16	0.308	0.383
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 0	DSI 4	519000	2595	20.55	21.50	1.245	-	-	-0.04	0.428	0.533
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 0	DSI 4	519000	2595	20.55	21.50	1.245	-	-	0.1	0.071	0.088
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 0	DSI 4	519000	2595	20.55	21.50	1.245	-	-	0.19	0.255	0.317
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Bottom Side	10mm	Ant 0	DSI 4	519000	2595	20.55	21.50	1.245	-	-	-0.07	0.298	0.371
	FR1 n38	40M	QPSK	1	53	DFT-30	Front	10mm	Ant 2	DSI 4	519000	2595	18.27	19.70	1.390	-	-	0.19	0.262	0.364
	FR1 n38	40M	QPSK	1	53	DFT-30	Back	10mm	Ant 2	DSI 4	519000	2595	18.27	19.70	1.390	-	-	0.17	0.451	0.627
	FR1 n38	40M	QPSK	1	53	DFT-30	Left Side	10mm	Ant 2	DSI 4	519000	2595	18.27	19.70	1.390	-	-	0	0.454	0.631
	FR1 n38	40M	QPSK	1	53	DFT-30	Top Side	10mm	Ant 2	DSI 4	519000	2595	18.27	19.70	1.390	-	-	-0.07	0.061	0.085
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 2	DSI 4	519000	2595	18.24	19.70	1.400	-	-	0.07	0.267	0.374
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 2	DSI 4	519000	2595	18.24	19.70	1.400	-	-	-0.07	0.462	0.647
46	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 2	DSI 4	519000	2595	18.24	19.70	1.400	-	-	0.05	0.464	0.649
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 2	DSI 4	519000	2595	18.24	19.70	1.400	-	-	0.03	0.063	0.088
	FR1 n38(EN-DC)	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 2	DSI 4	519000	2595	15.65	17.20	1.429	-	-	0.06	0.267	0.382
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Front	10mm	Ant 3	DSI 4	519000	2595	22.58	23.60	1.265	-	-	0.02	0.278	0.352
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Back	10mm	Ant 3	DSI 4	519000	2595	22.58	23.60	1.265	-	-	-0.02	0.349	0.441
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Left Side	10mm	Ant 3	DSI 4	519000	2595	22.58	23.60	1.265	-	-	-0.05	0.329	0.416
	FR1 n38(SA/EN-DC)	40M	QPSK	1	53	DFT-30	Bottom Side	10mm	Ant 3	DSI 4	519000	2595	22.58	23.60	1.265	-	-	0.06	0.145	0.183
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 3	DSI 4	519000	2595	22.52	23.60	1.282	-	-	0.09	0.273	0.350
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 3	DSI 4	519000	2595	22.52	23.60	1.282	-	-	-0.13	0.336	0.431
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 3	DSI 4	519000	2595	22.52	23.60	1.282	-	-	0.17	0.314	0.403
	FR1 n38(SA/EN-DC)	40M	QPSK	50	28	DFT-30	Bottom Side	10mm	Ant 3	DSI 4	519000	2595	22.52	23.60	1.282	-	-	-0.03	0.143	0.183
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 0	DSI 4	518598	2592.99	20.57	21.50	1.239	-	-	-0.14	0.300	0.372
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 0	DSI 4	518598	2592.99	20.57	21.50	1.239	-	-	0.19	0.415	0.514
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 0	DSI 4	518598	2592.99	20.57	21.50	1.239	-	-	-0.18	0.074	0.092
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 0	DSI 4	518598	2592.99	20.57	21.50	1.239	-	-	-0.02	0.258	0.320
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Bottom Side	10mm	Ant 0	DSI 4	518598	2592.99	20.57	21.50	1.239	-	-	0.04	0.290	0.359
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	DSI 4	518598	2592.99	20.55	21.50	1.245	-	-	0.16	0.314	0.391
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	DSI 4	518598	2592.99	20.55	21.50	1.245	-	-	0.19	0.430	0.535
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	DSI 4	518598	2592.99	20.55	21.50	1.245	-	-	0.14	0.077	0.096
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 0	DSI 4	518598	2592.99	20.55	21.50	1.245	-	-	-0.01	0.261	0.325
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 0	DSI 4	518598	2592.99	20.55	21.50	1.245	-	-	-0.09	0.303	0.377
	FR1 n41	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 1	DSI 4	518598	2592.99	18.70	19.90	1.318	-	-	-0.07	0.134	0.177
	FR1 n41	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 1	DSI 4	518598	2592.99	18.70	19.90	1.318	-	-	-0.09	0.380	0.501



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	FR1 n41	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 1	DSI 4	518598	2592.99	18.70	19.90	1.318	-	-	0.03	0.078	0.103
	FR1 n41	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 1	DSI 4	518598	2592.99	18.70	19.90	1.318	-	-	-0.19	0.411	0.542
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 1	DSI 4	518598	2592.99	18.68	19.90	1.324	-	-	-0.14	0.106	0.140
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 1	DSI 4	518598	2592.99	18.68	19.90	1.324	-	-	-0.14	0.372	0.493
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 1	DSI 4	518598	2592.99	18.68	19.90	1.324	-	-	0.13	0.080	0.106
47	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	518598	2592.99	18.68	19.90	1.324	-	-	0.11	0.416	0.551
	FR1 n41(EN-DC)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 1	DSI 4	518598	2592.99	16.11	17.40	1.346	-	-	0.06	0.231	0.311
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 2	DSI 4	518598	2592.99	15.88	17.20	1.355	-	-	-0.12	0.138	0.187
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 2	DSI 4	518598	2592.99	15.88	17.20	1.355	-	-	-0.18	0.224	0.304
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 2	DSI 4	518598	2592.99	15.88	17.20	1.355	-	-	-0.11	0.252	0.342
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 2	DSI 4	518598	2592.99	15.88	17.20	1.355	-	-	0.11	0.041	0.056
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI 4	518598	2592.99	15.84	17.20	1.368	-	-	0.07	0.143	0.196
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI 4	518598	2592.99	15.84	17.20	1.368	-	-	0.16	0.223	0.305
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI 4	518598	2592.99	15.84	17.20	1.368	-	-	0.19	0.249	0.341
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 2	DSI 4	518598	2592.99	15.84	17.20	1.368	-	-	-0.06	0.045	0.062
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 3	DSI 4	518598	2592.99	22.08	23.10	1.265	-	-	0.12	0.212	0.268
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 3	DSI 4	518598	2592.99	22.08	23.10	1.265	-	-	0.03	0.301	0.381
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 3	DSI 4	518598	2592.99	22.08	23.10	1.265	-	-	0.1	0.258	0.326
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Bottom Side	10mm	Ant 3	DSI 4	518598	2592.99	22.08	23.10	1.265	-	-	-0.01	0.119	0.151
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI 4	518598	2592.99	22.05	23.10	1.274	-	-	-0.13	0.219	0.279
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI 4	518598	2592.99	22.05	23.10	1.274	-	-	-0.01	0.311	0.396
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI 4	518598	2592.99	22.05	23.10	1.274	-	-	0.07	0.263	0.335
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 3	DSI 4	518598	2592.99	22.05	23.10	1.274	-	-	-0.05	0.121	0.154



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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)
3500MHz-3900MHz																				
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 2	DSI 4	633332	3499.98	15.37	15.90	1.130	-	-	0.16	0.265	0.299
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 2	DSI 4	633332	3499.98	15.37	15.90	1.130	-	-	-0.13	0.350	0.395
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 2	DSI 4	633332	3499.98	15.37	15.90	1.130	-	-	-0.08	0.660	0.746
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 2	DSI 4	633332	3499.98	15.37	15.90	1.130	-	-	-0.08	0.089	0.101
48	FR1 n77_PC2	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 2	DSI 4	633332	3499.98	17.91	18.90	1.256	50	1.000	-0.01	0.647	0.813
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI 4	633332	3499.98	15.35	15.90	1.135	-	-	-0.11	0.261	0.296
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI 4	633332	3499.98	15.35	15.90	1.135	-	-	0.14	0.349	0.396
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI 4	633332	3499.98	15.35	15.90	1.135	-	-	-0.07	0.644	0.731
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 2	DSI 4	633332	3499.98	15.35	15.90	1.135	-	-	-0.07	0.085	0.096
	FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 2	DSI 4	633332	3499.98	15.33	15.90	1.140	-	-	-0.16	0.616	0.702
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 2	DSI 4	656000	3840	15.16	15.90	1.186	-	-	0.11	0.153	0.181
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 2	DSI 4	656000	3840	15.16	15.90	1.186	-	-	-0.02	0.192	0.228
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 2	DSI 4	656000	3840	15.16	15.90	1.186	-	-	-0.02	0.406	0.481
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 2	DSI 4	656000	3840	15.16	15.90	1.186	-	-	0.07	0.049	0.058
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI 4	656000	3840	15.14	15.90	1.191	-	-	-0.09	0.152	0.181
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI 4	656000	3840	15.14	15.90	1.191	-	-	-0.12	0.189	0.225
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI 4	656000	3840	15.14	15.90	1.191	-	-	0.05	0.391	0.466
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 2	DSI 4	656000	3840	15.14	15.90	1.191	-	-	-0.15	0.045	0.054
	FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 2	DSI 4	656000	3840	15.12	15.90	1.197	-	-	0.11	0.384	0.460
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 4	DSI 4	633332	3499.98	18.95	19.80	1.216	-	-	-0.14	0.065	0.079
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 4	DSI 4	633332	3499.98	18.95	19.80	1.216	-	-	-0.12	0.211	0.257
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 4	DSI 4	633332	3499.98	18.95	19.80	1.216	-	-	-0.12	0.060	0.073
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 4	DSI 4	633332	3499.98	18.95	19.80	1.216	-	-	-0.03	0.087	0.106
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 4	DSI 4	633332	3499.98	18.95	19.80	1.216	-	-	-0.06	0.198	0.241
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 4	633332	3499.98	18.91	19.80	1.227	-	-	-0.19	0.063	0.077
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	633332	3499.98	18.91	19.80	1.227	-	-	0.01	0.217	0.266
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 4	633332	3499.98	18.91	19.80	1.227	-	-	-0.09	0.062	0.076
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 4	DSI 4	633332	3499.98	18.91	19.80	1.227	-	-	-0.16	0.084	0.103
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 4	633332	3499.98	18.91	19.80	1.227	-	-	0.17	0.200	0.245
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 4	DSI 4	656000	3840	18.68	19.80	1.294	-	-	-0.19	0.129	0.167
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 4	DSI 4	656000	3840	18.68	19.80	1.294	-	-	0.18	0.268	0.347
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 4	DSI 4	656000	3840	18.68	19.80	1.294	-	-	0.09	0.068	0.088
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 4	DSI 4	656000	3840	18.68	19.80	1.294	-	-	-0.16	0.080	0.104
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 4	DSI 4	656000	3840	18.68	19.80	1.294	-	-	0.11	0.266	0.344
	FR1 n77_PC2	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 4	DSI 4	656000	3840	21.53	22.80	1.340	50	1.000	0.02	0.256	0.343
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 4	656000	3840	18.63	19.80	1.309	-	-	0.14	0.124	0.162
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	656000	3840	18.63	19.80	1.309	-	-	0.15	0.262	0.343
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 4	656000	3840	18.63	19.80	1.309	-	-	0.03	0.065	0.085
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 4	DSI 4	656000	3840	18.63	19.80	1.309	-	-	-0.18	0.078	0.102
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 4	656000	3840	18.63	19.80	1.309	-	-	-0.07	0.259	0.339
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	16.96	17.50	1.132	-	-	-0.16	0.265	0.300
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	16.96	17.50	1.132	-	-	-0.03	0.289	0.327
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 5	DSI 4	633332	3499.98	16.96	17.50	1.132	-	-	-0.09	0.212	0.240
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	16.96	17.50	1.132	-	-	0.09	0.283	0.320
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	16.91	17.50	1.146	-	-	0.19	0.268	0.307
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	16.91	17.50	1.146	-	-	-0.12	0.298	0.341
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI 4	633332	3499.98	16.91	17.50	1.146	-	-	-0.15	0.219	0.251
	FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	16.91	17.50	1.146	-	-	0.18	0.288	0.330
	FR1 n77_PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	20.00	20.50	1.122	50	1.000	0.05	0.280	0.314
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	656000	3840	16.96	17.50	1.132	-	-	-0.16	0.198	0.224
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	656000	3840	16.96	17.50	1.132	-	-	-0.04	0.234	0.265
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 5	DSI 4	656000	3840	16.96	17.50	1.132	-	-	-0.14	0.177	0.200
	FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	656000	3840	16.96	17.50	1.132	-	-	-0.01	0.204	0.231

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FCC SAR Test Report

Report No. : FA282002

FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	656000	3840	16.94	17.50	1.138	-	-	0.16	0.198	0.225
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	656000	3840	16.94	17.50	1.138	-	-	-0.19	0.235	0.267
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI 4	656000	3840	16.94	17.50	1.138	-	-	0.04	0.169	0.192
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	656000	3840	16.94	17.50	1.138	-	-	-0.11	0.210	0.239
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	16.63	17.30	1.167	-	-	-0.16	0.179	0.209
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	16.63	17.30	1.167	-	-	-0.09	0.164	0.191
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	16.63	17.30	1.167	-	-	-0.03	0.227	0.265
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	16.63	17.30	1.167	-	-	0.19	0.136	0.159
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	16.61	17.30	1.172	-	-	-0.17	0.174	0.204
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	16.61	17.30	1.172	-	-	0.02	0.161	0.189
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	16.61	17.30	1.172	-	-	-0.02	0.221	0.259
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	16.61	17.30	1.172	-	-	-0.09	0.133	0.156
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	656000	3840	16.28	17.30	1.265	-	-	-0.09	0.194	0.245
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	656000	3840	16.28	17.30	1.265	-	-	0.17	0.183	0.231
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	16.28	17.30	1.265	-	-	-0.02	0.353	0.446
FR1 n77_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	656000	3840	16.28	17.30	1.265	-	-	-0.18	0.123	0.156
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	656000	3840	16.27	17.30	1.268	-	-	-0.13	0.198	0.251
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	656000	3840	16.27	17.30	1.268	-	-	-0.03	0.182	0.231
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	16.27	17.30	1.268	-	-	-0.17	0.360	0.456
FR1 n77_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	656000	3840	16.27	17.30	1.268	-	-	-0.01	0.129	0.164
FR1 n77_PC2	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	19.29	20.30	1.262	50	1.000	0.06	0.346	0.437
FR1 n77_PC3	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 6	DSI 4	656000	3840	16.29	17.30	1.262	-	-	-0.06	0.343	0.433
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 2	DSI 4	633332	3499.98	11.86	12.90	1.271	-	-	0.04	0.121	0.154
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 2	DSI 4	633332	3499.98	11.86	12.90	1.271	-	-	-0.09	0.145	0.184
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 2	DSI 4	633332	3499.98	11.86	12.90	1.271	-	-	-0.15	0.286	0.363
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 2	DSI 4	633332	3499.98	11.86	12.90	1.271	-	-	0.13	0.046	0.058
FR1 n78_PC2(EN-DC)	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 2	DSI 4	633332	3499.98	14.69	15.90	1.321	50	1.000	-0.13	0.274	0.362
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI 4	633332	3499.98	11.83	12.90	1.279	-	-	0.11	0.118	0.151
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI 4	633332	3499.98	11.83	12.90	1.279	-	-	-0.12	0.137	0.175
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI 4	633332	3499.98	11.83	12.90	1.279	-	-	-0.11	0.275	0.352
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 2	DSI 4	633332	3499.98	11.83	12.90	1.279	-	-	-0.05	0.045	0.058
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 2	DSI 4	650000	3750	11.72	12.90	1.312	-	-	0.05	0.070	0.092
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 2	DSI 4	650000	3750	11.72	12.90	1.312	-	-	0.19	0.097	0.127
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 2	DSI 4	650000	3750	11.72	12.90	1.312	-	-	-0.17	0.203	0.266
FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 2	DSI 4	650000	3750	11.72	12.90	1.312	-	-	0.15	0.045	0.059
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI 4	650000	3750	11.69	12.90	1.321	-	-	0.12	0.067	0.089
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI 4	650000	3750	11.69	12.90	1.321	-	-	0.16	0.096	0.127
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI 4	650000	3750	11.69	12.90	1.321	-	-	-0.13	0.206	0.272
FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 2	DSI 4	650000	3750	11.69	12.90	1.321	-	-	-0.01	0.044	0.058
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 4	DSI 4	633332	3499.98	19.43	20.30	1.222	-	-	0.03	0.070	0.086
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 4	DSI 4	633332	3499.98	19.43	20.30	1.222	-	-	-0.06	0.254	0.310
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 4	DSI 4	633332	3499.98	19.43	20.30	1.222	-	-	0.03	0.063	0.077
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 4	DSI 4	633332	3499.98	19.43	20.30	1.222	-	-	-0.02	0.092	0.112
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 4	DSI 4	633332	3499.98	19.43	20.30	1.222	-	-	-0.19	0.227	0.277
FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 4	633332	3499.98	19.38	20.30	1.236	-	-	0.13	0.066	0.082
FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	633332	3499.98	19.38	20.30	1.236	-	-	0.07	0.251	0.310
FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 4	633332	3499.98	19.38	20.30	1.236	-	-	0.17	0.067	0.083
FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 4	DSI 4	633332	3499.98	19.38	20.30	1.236	-	-	-0.04	0.093	0.115
FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 4	633332	3499.98	19.38	20.30	1.236	-	-	-0.04	0.236	0.292
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 4	DSI 4	650000	3750	19.07	20.30	1.327	-	-	-0.03	0.089	0.118
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 4	DSI 4	650000	3750	19.07	20.30	1.327	-	-	0.19	0.357	0.474
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 4	DSI 4	650000	3750	19.07	20.30	1.327	-	-	0.09	0.067	0.089
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 4	DSI 4	650000	3750	19.07	20.30	1.327	-	-	-0.16	0.085	0.113
FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 4	DSI 4	650000	3750	19.07	20.30	1.327	-	-	0.04	0.162	0.215
FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 4	650000	3750	19.04	20.30	1.337	-	-	0.16	0.091	0.122
FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	650000	3750	19.04	20.30	1.337	-	-	0.08	0.360	0.481



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	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 4	650000	3750	19.04	20.30	1.337	-	-	0.15	0.066	0.088
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 4	DSI 4	650000	3750	19.04	20.30	1.337	-	-	0.11	0.088	0.118
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 4	650000	3750	19.04	20.30	1.337	-	-	-0.15	0.233	0.311
49	FR1 n78_PC2	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	650000	3750	21.96	23.30	1.361	50	1.000	-0.01	0.382	0.520
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	650000	3750	17.48	18.80	1.355	-	-	-0.05	0.249	0.337
	FR1 n78_PC2(EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 4	650000	3750	20.52	21.80	1.343	50	1.000	-0.06	0.256	0.344
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	17.40	18.00	1.148	-	-	-0.13	0.266	0.305
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	17.40	18.00	1.148	-	-	-0.02	0.319	0.366
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 5	DSI 4	633332	3499.98	17.40	18.00	1.148	-	-	0.02	0.232	0.266
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	17.40	18.00	1.148	-	-	0.02	0.307	0.352
	FR1 n78_PC2	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	20.37	21.00	1.156	50	1.000	0.07	0.300	0.347
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	15.35	16.00	1.161	-	-	-0.12	0.197	0.229
	FR1 n78_PC2(EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	18.26	19.00	1.186	50	1.000	-0.09	0.191	0.226
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	633332	3499.98	17.26	18.00	1.186	-	-	0.16	0.261	0.309
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	633332	3499.98	17.26	18.00	1.186	-	-	-0.01	0.303	0.359
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI 4	633332	3499.98	17.26	18.00	1.186	-	-	0.07	0.233	0.276
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	633332	3499.98	17.26	18.00	1.186	-	-	-0.18	0.296	0.351
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 5	DSI 4	650000	3750	17.33	18.00	1.167	-	-	-0.18	0.201	0.235
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 5	DSI 4	650000	3750	17.33	18.00	1.167	-	-	0.05	0.274	0.320
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Left Side	10mm	Ant 5	DSI 4	650000	3750	17.33	18.00	1.167	-	-	-0.19	0.196	0.229
	FR1 n78_PC3	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 5	DSI 4	650000	3750	17.33	18.00	1.167	-	-	-0.1	0.249	0.291
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 4	650000	3750	17.31	18.00	1.172	-	-	0.17	0.204	0.239
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 4	650000	3750	17.31	18.00	1.172	-	-	0.04	0.270	0.316
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	DSI 4	650000	3750	17.31	18.00	1.172	-	-	-0.18	0.190	0.223
	FR1 n78_PC3	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 4	650000	3750	17.31	18.00	1.172	-	-	0.16	0.238	0.279
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	13.71	14.30	1.146	-	-	-0.08	0.099	0.113
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	13.71	14.30	1.146	-	-	0.02	0.092	0.105
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	13.71	14.30	1.146	-	-	-0.01	0.153	0.175
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	13.71	14.30	1.146	-	-	0.14	0.075	0.086
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	633332	3499.98	13.68	14.30	1.153	-	-	-0.18	0.095	0.110
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	633332	3499.98	13.68	14.30	1.153	-	-	0.07	0.090	0.104
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	633332	3499.98	13.68	14.30	1.153	-	-	0.14	0.151	0.174
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	633332	3499.98	13.68	14.30	1.153	-	-	-0.04	0.072	0.083
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Front	10mm	Ant 6	DSI 4	650000	3750	13.36	14.30	1.242	-	-	-0.13	0.107	0.133
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Back	10mm	Ant 6	DSI 4	650000	3750	13.36	14.30	1.242	-	-	-0.05	0.104	0.129
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	13.36	14.30	1.242	-	-	-0.07	0.181	0.225
	FR1 n78_PC3(EN-DC)	100M	QPSK	1	137	DFT-30	Top Side	10mm	Ant 6	DSI 4	650000	3750	13.36	14.30	1.242	-	-	0.14	0.085	0.106
	FR1 n78_PC2(EN-DC)	100M	QPSK	1	137	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	16.48	17.30	1.208	50	1.000	0.08	0.175	0.211
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 4	650000	3750	13.33	14.30	1.250	-	-	-0.08	0.103	0.129
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 4	650000	3750	13.33	14.30	1.250	-	-	-0.14	0.100	0.125
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 4	650000	3750	13.33	14.30	1.250	-	-	0.16	0.172	0.215
	FR1 n78_PC3(EN-DC)	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 4	650000	3750	13.33	14.30	1.250	-	-	0.15	0.082	0.103



FCC SAR Test Report

Report No. : FA282002

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)
2450MHz																
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	-0.18	0.036	0.062
50	Bluetooth	DH5 1Mbps	Back	10mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	0.07	0.112	0.191
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	0.01	0.009	0.015
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	0.11	0.044	0.075
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 7	Full	78	2480	15.82	17.00	1.312	76.73	1.303	-0.09	0.086	0.147
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 7	Hotspot on	1	2412	13.32	14.50	1.312	99.6	1.004	-0.12	0.018	0.024
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 7	Hotspot on	1	2412	13.32	14.50	1.312	99.6	1.004	0.03	0.073	0.096
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 7	Hotspot on	1	2412	13.32	14.50	1.312	99.6	1.004	0.02	0.004	0.005
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7	Hotspot on	1	2412	13.32	14.50	1.312	99.6	1.004	-0.15	0.025	0.033
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7	Hotspot on	1	2412	13.32	14.50	1.312	99.6	1.004	-0.01	0.043	0.057
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 8	Hotspot on	1	2412	13.49	14.50	1.262	99.6	1.004	-0.09	0.046	0.058
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 8	Hotspot on	1	2412	13.49	14.50	1.262	99.6	1.004	-0.04	0.107	0.136
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 8	Hotspot on	1	2412	13.49	14.50	1.262	99.6	1.004	0.08	0.007	0.009
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 8	Hotspot on	1	2412	13.49	14.50	1.262	99.6	1.004	-0.03	0.080	0.101
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 8	Hotspot on	1	2412	13.49	14.50	1.262	99.6	1.004	-0.06	0.018	0.023
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 7+8	Hotspot on	1	2412	16.42	17.50	1.283	99.6	1.004	-0.16	0.081	0.104
51	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 7+8	Hotspot on	1	2412	16.42	17.50	1.283	99.6	1.004	-0.06	0.188	0.242
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 7+8	Hotspot on	1	2412	16.42	17.50	1.283	99.6	1.004	0.04	0.021	0.027
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7+8	Hotspot on	1	2412	16.42	17.50	1.283	99.6	1.004	-0.03	0.137	0.177
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7+8	Hotspot on	1	2412	16.42	17.50	1.283	99.6	1.004	0.08	0.113	0.146
5000-6000MHz																
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 8	Hotspot on	42	5210	9.49	10.50	1.262	88.19	1.134	0.01	0.020	0.029
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 8	Hotspot on	42	5210	9.49	10.50	1.262	88.19	1.134	0.01	0.044	0.062
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 8	Hotspot on	42	5210	9.49	10.50	1.262	88.19	1.134	0.13	0.007	0.010
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 8	Hotspot on	42	5210	9.49	10.50	1.262	88.19	1.134	-0.03	0.030	0.043
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 8	Hotspot on	42	5210	9.49	10.50	1.262	88.19	1.134	-0.05	0.011	0.015
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 7+8	Hotspot on	42	5210	12.29	13.50	1.321	88.19	1.134	0.08	0.067	0.100
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 7+8	Hotspot on	42	5210	12.29	13.50	1.321	88.19	1.134	0.06	0.121	0.181
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 7+8	Hotspot on	42	5210	12.29	13.50	1.321	88.19	1.134	0.18	0.026	0.039
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 7+8	Hotspot on	42	5210	12.29	13.50	1.321	88.19	1.134	-0.12	0.083	0.124
52	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 7+8	Hotspot on	42	5210	12.29	13.50	1.321	88.19	1.134	-0.18	0.151	0.226
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 8	Hotspot on	155	5775	9.66	11.00	1.361	88.19	1.134	0.05	0.013	0.019
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 8	Hotspot on	155	5775	9.66	11.00	1.361	88.19	1.134	-0.13	0.055	0.085
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 8	Hotspot on	155	5775	9.66	11.00	1.361	88.19	1.134	-0.01	0.012	0.019
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 8	Hotspot on	155	5775	9.66	11.00	1.361	88.19	1.134	-0.03	0.035	0.054
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 8	Hotspot on	155	5775	9.66	11.00	1.361	88.19	1.134	0.13	0.008	0.012
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 7+8	Hotspot on	155	5775	12.65	14.00	1.364	88.19	1.134	-0.03	0.081	0.125
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 7+8	Hotspot on	155	5775	12.65	14.00	1.364	88.19	1.134	0.08	0.138	0.214
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 7+8	Hotspot on	155	5775	12.65	14.00	1.364	88.19	1.134	0.03	0.048	0.074
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 7+8	Hotspot on	155	5775	12.65	14.00	1.364	88.19	1.134	-0.12	0.091	0.141
53	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 7+8	Hotspot on	155	5775	12.65	14.00	1.364	88.19	1.134	0.06	0.165	0.255



15.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)		
750MHz																				
54	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	23095	707.5	24.65	25.50	1.216	-0.16	0.141	0.171		
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	23095	707.5	24.65	25.50	1.216	0.16	0.249	0.303		
	LTE Band 12(EN-DC)	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	23095	707.5	24.51	25.50	1.256	-0.08	0.226	0.284		
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 3	23095	707.5	23.70	24.50	1.202	0.08	0.119	0.143		
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 3	23095	707.5	23.70	24.50	1.202	0.13	0.197	0.237		
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	23095	707.5	23.63	24.80	1.309	-0.13	0.120	0.157		
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	23095	707.5	23.63	24.80	1.309	-0.16	0.151	0.198		
	LTE Band 12(EN-DC)	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 3	23095	707.5	22.80	24.00	1.318	-0.07	0.134	0.177		
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 3	23095	707.5	22.77	23.80	1.268	0.04	0.106	0.134		
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 3	23095	707.5	22.77	23.80	1.268	0.08	0.126	0.160		
55	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	23230	782	24.46	25.50	1.271	0.02	0.031	0.039		
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	23230	782	24.46	25.50	1.271	-0.16	0.046	0.058		
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 3	23230	782	23.38	24.50	1.294	0.12	0.025	0.032		
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 3	23230	782	23.38	24.50	1.294	-0.09	0.033	0.043		
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	23230	782	23.88	24.90	1.265	-0.17	0.135	0.171		
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	23230	782	23.88	24.90	1.265	0.02	0.156	0.197		
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 3	23230	782	22.79	23.90	1.291	-0.08	0.101	0.130		
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 3	23230	782	22.79	23.90	1.291	-0.06	0.113	0.146		
	835MHz																			
	56	GSM850	-	-	-	-	GPRS (4 TX slots)	Front	15mm	Ant 0	DSI 3	189	836.4	26.96	27.50	1.132	0.09	0.121	0.137	
GSM850		-	-	-	-	GPRS (4 TX slots)	Back	15mm	Ant 0	DSI 3	189	836.4	26.96	27.50	1.132	0.18	0.160	0.181		
GSM850		-	-	-	-	GPRS (4 TX slots)	Front	15mm	Ant 1	DSI 3	189	836.4	26.73	27.50	1.194	0.03	0.136	0.162		
GSM850		-	-	-	-	GPRS (4 TX slots)	Back	15mm	Ant 1	DSI 3	189	836.4	26.73	27.50	1.194	0.17	0.210	0.251		
WCDMA V		-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 3	4182	836.4	24.31	25.00	1.172	-0.02	0.129	0.151		
57	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 3	4182	836.4	24.31	25.00	1.172	-0.05	0.151	0.177		
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI 3	4182	836.4	24.01	25.00	1.256	-0.04	0.160	0.201		
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI 3	4182	836.4	24.01	25.00	1.256	0.02	0.251	0.315		
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	20525	836.5	24.73	25.70	1.250	0.14	0.118	0.148		
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	20525	836.5	24.73	25.70	1.250	0.07	0.161	0.201		
58	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 3	20525	836.5	23.86	24.70	1.213	0.02	0.095	0.115		
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 3	20525	836.5	23.86	24.70	1.213	0.03	0.132	0.160		
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	20525	836.5	24.67	25.50	1.211	-0.16	0.181	0.219		
	LTE Band 5(EN-DC)	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	20525	836.5	24.67	25.50	1.211	0.08	0.231	0.280		
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 3	20525	836.5	23.63	24.50	1.222	0.08	0.141	0.172		
	LTE Band 5(EN-DC)	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 3	20525	836.5	23.63	24.50	1.222	-0.16	0.187	0.228		
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	26865	831.5	24.45	25.50	1.274	-0.1	0.132	0.168		
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	26865	831.5	24.45	25.50	1.274	-0.05	0.161	0.205		
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	DSI 3	26865	831.5	23.41	24.50	1.285	-0.06	0.101	0.130		
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	DSI 3	26865	831.5	23.41	24.50	1.285	-0.13	0.122	0.157		
LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	26865	831.5	24.17	25.40	1.327	-0.07	0.153	0.203			
LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	26865	831.5	24.17	25.40	1.327	0.01	0.189	0.251			
LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	DSI 3	26865	831.5	23.13	24.40	1.340	-0.15	0.117	0.157			
LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	DSI 3	26865	831.5	23.13	24.40	1.340	0.19	0.146	0.196			
60	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 3	167300	836.5	24.61	25.50	1.227	0.14	0.110	0.135		
	FR1 n5(SA/EN-DC)	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 3	167300	836.5	24.61	25.50	1.227	0.04	0.139	0.171		
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	DSI 3	167300	836.5	24.53	25.50	1.250	-0.1	0.104	0.130		
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	DSI 3	167300	836.5	24.53	25.50	1.250	0.15	0.135	0.169		
	FR1 n5(SA/EN-DC)	20M	QPSK	1	53	DFT-15	Front	15mm	Ant 1	DSI 3	167300	836.5	24.30	25.30	1.259	-0.18	0.175	0.220		
	FR1 n5(SA/EN-DC)	20M	QPSK	1	53	DFT-15	Back	15mm	Ant 1	DSI 3	167300	836.5	24.30	25.30	1.259	-0.04	0.199	0.251		
	FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	DSI 3	167300	836.5	24.25	25.30	1.274	0.03	0.169	0.215		



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FR1 n5(SA/EN-DC)	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	DSI 3	167300	836.5	24.25	25.30	1.274	0.06	0.192	0.245	
1750MHz																		
61	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 3	1413	1732.6	24.36	25.00	1.159	0.06	0.396	0.459
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 3	1413	1732.6	24.36	25.00	1.159	-0.16	0.777	0.900
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 3	1312	1712.4	24.32	25.00	1.169	0.04	0.744	0.870
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 3	1513	1752.6	24.27	25.00	1.183	0.01	0.751	0.888
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 3	1413	1732.6	24.51	25.50	1.256	-0.01	0.268	0.337
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	1413	1732.6	24.51	25.50	1.256	0.17	0.455	0.571
62	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	20175	1732.5	21.74	22.50	1.191	0.01	0.191	0.228
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	20175	1732.5	21.74	22.50	1.191	-0.18	0.440	0.524
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 3	20175	1732.5	21.65	22.50	1.216	0.05	0.187	0.227
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	20175	1732.5	21.65	22.50	1.216	-0.06	0.432	0.525
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	20175	1732.5	22.38	23.60	1.324	-0.1	0.314	0.416
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	20175	1732.5	22.38	23.60	1.324	0.09	0.719	0.952
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI 3	20175	1732.5	22.33	23.60	1.340	0.15	0.308	0.413
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	20175	1732.5	22.33	23.60	1.340	-0.02	0.707	0.947
	LTE Band 4	20M	QPSK	100	0	-	Back	15mm	Ant 1	DSI 3	20175	1732.5	22.26	23.60	1.361	0.01	0.694	0.945
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	20175	1732.5	24.69	25.60	1.233	0.06	0.214	0.264
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	20175	1732.5	24.69	25.60	1.233	-0.03	0.388	0.478
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	20175	1732.5	23.66	24.60	1.242	0.05	0.171	0.212
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	20175	1732.5	23.66	24.60	1.242	-0.07	0.319	0.396
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 3	20175	1732.5	23.29	24.10	1.205	0.03	0.132	0.159
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	20175	1732.5	23.29	24.10	1.205	0.08	0.143	0.172
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 3	20175	1732.5	22.28	23.10	1.208	-0.06	0.113	0.136
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 3	20175	1732.5	22.28	23.10	1.208	0.05	0.121	0.146
	63	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	132322	1745	24.56	25.50	1.242	-0.19	0.359
LTE Band 66		20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	132322	1745	24.56	25.50	1.242	-0.02	0.746	0.926
LTE Band 66		20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	132072	1720	24.40	25.50	1.288	-0.03	0.672	0.866
LTE Band 66		20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	132572	1770	24.32	25.50	1.312	-0.02	0.759	0.996
LTE Band 66(EN-DC)		20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	132572	1770	20.74	22.70	1.570	-0.18	0.343	0.539
LTE Band 66		20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 3	132322	1745	23.65	24.50	1.216	-0.12	0.327	0.398
LTE Band 66		20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	132322	1745	23.65	24.50	1.216	0.13	0.691	0.840
LTE Band 66		20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	132072	1720	23.51	24.50	1.256	-0.01	0.630	0.791
LTE Band 66		20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	132572	1770	23.57	24.50	1.239	0.1	0.701	0.868
LTE Band 66		20M	QPSK	100	0	-	Back	15mm	Ant 0	DSI 3	132322	1745	23.55	24.50	1.245	-0.04	0.688	0.856
LTE Band 66		20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	132322	1745	22.47	23.50	1.268	-0.11	0.275	0.349
LTE Band 66		20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	132322	1745	22.47	23.50	1.268	0.15	0.692	0.877
LTE Band 66		20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	132072	1720	22.32	23.50	1.312	-0.04	0.653	0.857
LTE Band 66		20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	132572	1770	22.35	23.50	1.303	0.18	0.567	0.739
LTE Band 66(EN-DC)		20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	132322	1745	22.66	23.50	1.213	-0.02	0.180	0.218
LTE Band 66		20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI 3	132322	1745	22.43	23.50	1.279	0.11	0.267	0.342
LTE Band 66		20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	132322	1745	22.43	23.50	1.279	-0.06	0.681	0.871
LTE Band 66		20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	132072	1720	22.27	23.50	1.327	0.1	0.633	0.840
LTE Band 66		20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	132572	1770	22.24	23.50	1.337	0.12	0.548	0.732
LTE Band 66		20M	QPSK	100	0	-	Back	15mm	Ant 1	DSI 3	132322	1770	22.36	23.50	1.300	0.18	0.672	0.874
LTE Band 66		20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	132322	1745	24.72	25.70	1.253	0.1	0.257	0.322
LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	132322	1745	24.72	25.70	1.253	-0.06	0.381	0.477	
LTE Band 66(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	132322	1745	23.21	24.20	1.256	-0.08	0.070	0.088	
LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	132322	1745	23.81	24.70	1.227	0.08	0.197	0.242	
LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	132322	1745	23.81	24.70	1.227	0.16	0.301	0.369	
LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 3	132322	1745	23.32	24.00	1.169	-0.19	0.110	0.129	
LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	132322	1745	23.32	24.00	1.169	0.02	0.118	0.138	
LTE Band 66(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	132322	1745	24.06	24.20	1.033	-0.04	0.100	0.103	
LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 3	132322	1745	22.46	23.00	1.132	0.18	0.092	0.104	
LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 3	132322	1745	22.46	23.00	1.132	-0.01	0.102	0.116	
FR1 n66	40M	QPSK	1	108	DFT-15	Front	15mm	Ant 0	DSI 3	349000	1745	24.42	25.50	1.282	-0.11	0.460	0.590	

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64	FR1 n66	40M	QPSK	1	108	DFT-15	Back	15mm	Ant 0	DSI 3	349000	1745	24.42	25.50	1.282	0.01	0.679	0.871	
	FR1 n66(EN-DC)	40M	QPSK	1	108	DFT-15	Back	15mm	Ant 0	DSI 3	349000	1745	21.86	23.00	1.300	0.09	0.415	0.540	
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 0	DSI 3	349000	1745	24.36	25.50	1.300	-0.1	0.452	0.588	
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 0	DSI 3	349000	1745	24.36	25.50	1.300	-0.13	0.660	0.858	
	FR1 n66	40M	QPSK	216	0	DFT-15	Back	15mm	Ant 0	DSI 3	349000	1745	23.48	24.50	1.265	0.07	0.657	0.831	
	FR1 n66	40M	QPSK	1	108	DFT-15	Front	15mm	Ant 1	DSI 3	349000	1745	22.70	23.60	1.230	-0.18	0.578	0.711	
	FR1 n66	40M	QPSK	1	108	DFT-15	Back	15mm	Ant 1	DSI 3	349000	1745	22.70	23.60	1.230	0.05	0.704	0.866	
	FR1 n66(EN-DC)	40M	QPSK	1	108	DFT-15	Back	15mm	Ant 1	DSI 3	349000	1745	19.65	20.60	1.245	0.11	0.359	0.447	
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 1	DSI 3	349000	1745	22.69	23.60	1.233	0.14	0.568	0.700	
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 1	DSI 3	349000	1745	22.69	23.60	1.233	-0.17	0.690	0.851	
	FR1 n66	40M	QPSK	216	0	DFT-15	Back	15mm	Ant 1	DSI 3	349000	1745	22.63	23.60	1.250	0.04	0.681	0.851	
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Front	15mm	Ant 2	DSI 3	349000	1745	23.88	24.60	1.180	0.13	0.195	0.230	
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Back	15mm	Ant 2	DSI 3	349000	1745	23.88	24.60	1.180	-0.13	0.331	0.391	
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 2	DSI 3	349000	1745	23.66	24.60	1.242	0.09	0.197	0.245	
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 2	DSI 3	349000	1745	23.66	24.60	1.242	-0.09	0.344	0.427	
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Front	15mm	Ant 3	DSI 3	349000	1745	23.15	23.70	1.135	-0.05	0.110	0.125	
	FR1 n66(SA/EN-DC)	40M	QPSK	1	108	DFT-15	Back	15mm	Ant 3	DSI 3	349000	1745	23.15	23.70	1.135	0.15	0.135	0.153	
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 3	DSI 3	349000	1745	23.12	23.70	1.143	0.06	0.104	0.119	
	FR1 n66(SA/EN-DC)	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 3	DSI 3	349000	1745	23.12	23.70	1.143	0.01	0.130	0.149	
1900MHz																			
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Front	15mm	Ant 0	DSI 3	661	1880	23.93	24.50	1.140	-0.05	0.155	0.177	
65	GSM1900	-	-	-	-	GPRS (4 TX slots)	Back	15mm	Ant 0	DSI 3	661	1880	23.93	24.50	1.140	0.01	0.278	0.317	
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Front	15mm	Ant 2	DSI 3	661	1880	23.97	24.50	1.130	0.14	0.102	0.115	
	GSM1900	-	-	-	-	GPRS (4 TX slots)	Back	15mm	Ant 2	DSI 3	661	1880	23.97	24.50	1.130	0.16	0.208	0.235	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 3	9400	1880	23.89	24.50	1.151	-0.03	0.299	0.344	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 3	9400	1880	23.89	24.50	1.151	-0.18	0.600	0.690	
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 3	9400	1880	24.07	25.00	1.239	0.09	0.296	0.367	
66	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 3	9400	1880	24.07	25.00	1.239	0.12	0.569	0.705	
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	18900	1880	23.16	24.00	1.213	-0.01	0.272	0.330	
67	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	18900	1880	23.16	24.00	1.213	-0.18	0.502	0.609	
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 3	18900	1880	22.15	23.00	1.216	-0.13	0.238	0.289	
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	18900	1880	22.15	23.00	1.216	0.06	0.425	0.517	
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	18900	1880	19.25	20.20	1.245	0.06	0.145	0.180	
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	18900	1880	19.25	20.20	1.245	0.13	0.376	0.468	
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	18900	1880	18.11	19.00	1.227	0.01	0.354	0.435	
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI 3	18900	1880	19.17	20.20	1.268	-0.09	0.139	0.176	
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	18900	1880	19.17	20.20	1.268	0.05	0.362	0.459	
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 3	18900	1880	23.20	24.50	1.349	-0.16	0.070	0.094	
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	18900	1880	23.20	24.50	1.349	-0.17	0.109	0.147	
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 3	18900	1880	22.21	23.50	1.346	-0.07	0.053	0.071	
	LTE Band 2(EN-DC/UL-CA)	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 3	18900	1880	22.21	23.50	1.346	0.01	0.080	0.108	



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Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	21100	2535	23.63	24.00	1.089	-	-	-0.08	0.314	0.342
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	21100	2535	23.63	24.00	1.089	-	-	-0.08	0.395	0.430
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 3	21100	2535	23.54	24.00	1.112	-	-	-0.05	0.322	0.358
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	21100	2535	23.54	24.00	1.112	-	-	-0.17	0.401	0.446
	LTE Band 7C	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	21100	2535	23.52	24.00	1.117	-	-	0.06	0.370	0.413
	LTE Band 7(EN-DC)	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	21100	2535	21.83	23.50	1.469	-	-	-0.07	0.374	0.549
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	21100	2535	21.59	22.20	1.151	-	-	0.01	0.123	0.142
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	21100	2535	21.59	22.20	1.151	-	-	0.09	0.546	0.628
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI 3	21100	2535	21.55	22.20	1.161	-	-	0.05	0.130	0.151
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	21100	2535	21.55	22.20	1.161	-	-	-0.07	0.558	0.648
	LTE Band 7C	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	21100	2535	21.53	22.20	1.167	-	-	-0.02	0.514	0.600
	LTE Band 7(EN-DC/UL-CA)	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	21100	2535	22.38	23.00	1.153	-	-	0.05	0.468	0.540
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	21100	2535	24.68	25.60	1.236	-	-	0.15	0.430	0.531
68	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	21100	2535	24.68	25.60	1.236	-	-	0.17	0.620	0.766
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	21100	2535	24.62	25.60	1.253	-	-	0.09	0.589	0.738
	LTE Band 7(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	21100	2535	23.75	25.50	1.496	-	-	0.17	0.346	0.518
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	21100	2535	23.73	24.60	1.222	-	-	0.09	0.346	0.423
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	21100	2535	23.73	24.60	1.222	-	-	0.12	0.499	0.610
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 3	21100	2535	21.25	22.10	1.216	-	-	0.01	0.093	0.113
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	21100	2535	21.25	22.10	1.216	-	-	0.05	0.115	0.140
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 3	21100	2535	21.23	22.10	1.222	-	-	0.07	0.095	0.116
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 3	21100	2535	21.23	22.10	1.222	-	-	-0.11	0.118	0.144
	LTE Band 7C	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 3	21100	2535	21.19	22.10	1.233	-	-	0.04	0.098	0.121
	LTE Band 7(EN-DC/UL-CA)	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	21100	2535	22.49	23.50	1.262	-	-	0.09	0.101	0.127
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	38000	2595	20.68	21.70	1.265	62.9	1.006	-0.18	0.194	0.247
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	38000	2595	20.68	21.70	1.265	62.9	1.006	-0.15	0.240	0.305
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 3	38000	2595	20.64	21.70	1.276	62.9	1.006	0.05	0.195	0.250
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	38000	2595	20.64	21.70	1.276	62.9	1.006	-0.17	0.245	0.315
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	38000	2595	21.48	22.70	1.324	62.9	1.006	0.02	0.270	0.360
	LTE Band 38(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	38000	2595	21.48	22.70	1.324	62.9	1.006	0.13	0.426	0.568
	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	38000	2595	21.45	22.70	1.334	62.9	1.006	-0.06	0.274	0.368
69	LTE Band 38(EN-DC)	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	38000	2595	21.45	22.70	1.334	62.9	1.006	-0.04	0.441	0.592
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 3	40620	2593	24.91	25.50	1.146	62.9	1.006	0.03	0.342	0.394
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	40620	2593	24.91	25.50	1.146	62.9	1.006	-0.06	0.444	0.512
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	40620	2593	24.86	25.50	1.159	62.9	1.006	0.01	0.431	0.503
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 3	40620	2593	20.70	21.30	1.148	62.9	1.006	0.05	0.321	0.371
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 0	DSI 3	40620	2593	23.89	24.50	1.151	62.9	1.006	-0.17	0.273	0.316
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 0	DSI 3	40620	2593	23.89	24.50	1.151	62.9	1.006	0.15	0.339	0.392
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 3	40620	2593	24.03	25.00	1.250	62.9	1.006	-0.06	0.137	0.172
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	40620	2593	24.03	25.00	1.250	62.9	1.006	0.17	0.483	0.607
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	39750	2506	24.01	25.00	1.256	62.9	1.006	-0.16	0.274	0.346
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	40185	2549.5	23.86	25.00	1.300	62.9	1.006	0.01	0.240	0.314
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	41055	2636.5	23.91	25.00	1.285	62.9	1.006	-0.1	0.459	0.593
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	41490	2680	23.96	25.00	1.271	62.9	1.006	-0.16	0.369	0.472
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	40620	2593	23.97	25.00	1.268	62.9	1.006	0.04	0.441	0.562
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 3	40620	2593	19.99	20.50	1.125	62.9	1.006	0.03	0.448	0.507
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 1	DSI 3	40620	2593	22.94	24.00	1.276	62.9	1.006	0.08	0.110	0.141
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 1	DSI 3	40620	2593	22.94	24.00	1.276	62.9	1.006	-0.15	0.393	0.505
	LTE Band 41	20M	QPSK	100	0	-	Back	15mm	Ant 1	DSI 3	40620	2593	22.90	24.00	1.288	62.9	1.006	0.03	0.387	0.502
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 3	40620	2593	24.62	25.70	1.282	62.9	1.006	0.07	0.309	0.399
70	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	40620	2593	24.62	25.70	1.282	62.9	1.006	-0.12	0.515	0.664



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	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	39750	2506	24.58	25.70	1.294	62.9	1.006	0.1	0.410	0.534
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	40185	2549.5	24.60	25.70	1.288	62.9	1.006	0.11	0.431	0.559
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	41055	2636.5	24.56	25.70	1.300	62.9	1.006	0.11	0.454	0.594
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	41490	2680	24.59	25.70	1.291	62.9	1.006	0.18	0.478	0.621
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	40620	2593	24.58	25.70	1.294	62.9	1.006	0.09	0.505	0.657
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 3	40620	2593	20.85	22.10	1.334	62.9	1.006	-0.03	0.373	0.500
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 3	40620	2593	23.69	24.70	1.262	62.9	1.006	0.02	0.257	0.326
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 3	40620	2593	23.69	24.70	1.262	62.9	1.006	0.13	0.408	0.518
	LTE Band 41	20M	QPSK	100	0	-	Back	15mm	Ant 2	DSI 3	40620	2593	23.65	24.70	1.274	62.9	1.006	-0.16	0.405	0.519
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 3	40620	2593	23.53	24.50	1.250	62.9	1.006	0.02	0.077	0.097
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	40620	2593	23.53	24.50	1.250	62.9	1.006	0.13	0.095	0.120
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	40620	2593	23.48	24.50	1.265	62.9	1.006	0.09	0.085	0.108
	LTE Band 41(EN-DC)	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 3	40620	2593	23.86	24.30	1.107	62.9	1.006	0.11	0.091	0.101
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 3	40620	2593	22.53	23.50	1.250	62.9	1.006	-0.03	0.063	0.079
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 3	40620	2593	22.53	23.50	1.250	62.9	1.006	0.09	0.077	0.097
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 3	507000	2535	23.72	24.50	1.197	-	-	0.18	0.350	0.419
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 3	507000	2535	23.72	24.50	1.197	-	-	-0.14	0.472	0.565
	FR1 n7(EN-DC)	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 3	507000	2535	23.16	24.00	1.213	-	-	0.12	0.425	0.516
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 0	DSI 3	507000	2535	23.71	24.50	1.199	-	-	-0.19	0.345	0.414
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 0	DSI 3	507000	2535	23.71	24.50	1.199	-	-	-0.14	0.464	0.557
	FR1 n7	50M	QPSK	1	135	DFT-15	Front	15mm	Ant 1	DSI 3	507000	2535	23.72	25.10	1.374	-	-	-0.12	0.225	0.309
	FR1 n7	50M	QPSK	1	135	DFT-15	Back	15mm	Ant 1	DSI 3	507000	2535	23.72	25.10	1.374	-	-	0.09	0.379	0.521
	FR1 n7(EN-DC)	50M	QPSK	1	135	DFT-15	Back	15mm	Ant 1	DSI 3	507000	2535	21.85	23.10	1.334	-	-	0.09	0.230	0.307
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 1	DSI 3	507000	2535	23.68	25.10	1.387	-	-	0.11	0.220	0.305
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 1	DSI 3	507000	2535	23.68	25.10	1.387	-	-	-0.13	0.370	0.513
	FR1 n7	50M	QPSK	1	135	DFT-15	Front	15mm	Ant 2	DSI 3	507000	2535	23.62	25.20	1.439	-	-	0.01	0.410	0.590
71	FR1 n7	50M	QPSK	1	135	DFT-15	Back	15mm	Ant 2	DSI 3	507000	2535	23.62	25.20	1.439	-	-	0.06	0.656	0.944
	FR1 n7(EN-DC)	50M	QPSK	1	135	DFT-15	Back	15mm	Ant 2	DSI 3	507000	2535	20.43	22.20	1.503	-	-	0.01	0.352	0.529
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 2	DSI 3	507000	2535	23.52	25.20	1.472	-	-	0.17	0.401	0.590
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 2	DSI 3	507000	2535	23.52	25.20	1.472	-	-	0.16	0.630	0.928
	FR1 n7	50M	QPSK	270	0	DFT-15	Back	15mm	Ant 2	DSI 3	507000	2535	23.01	24.70	1.476	-	-	0.01	0.638	0.942
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	DSI 3	507000	2535	23.56	24.70	1.300	-	-	0.19	0.120	0.156
	FR1 n7(SA/EN-DC)	50M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	DSI 3	507000	2535	23.56	24.70	1.300	-	-	0.1	0.160	0.208
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Front	15mm	Ant 3	DSI 3	507000	2535	23.48	24.70	1.324	-	-	-0.13	0.114	0.151
	FR1 n7(SA/EN-DC)	50M	QPSK	135	68	DFT-15	Back	15mm	Ant 3	DSI 3	507000	2535	23.48	24.70	1.324	-	-	0.09	0.155	0.205
	FR1 n38	40M	QPSK	1	53	DFT-30	Front	15mm	Ant 0	DSI 3	519000	2595	23.63	24.50	1.222	-	-	-0.07	0.348	0.425
	FR1 n38	40M	QPSK	1	53	DFT-30	Back	15mm	Ant 0	DSI 3	519000	2595	23.63	24.50	1.222	-	-	-0.14	0.543	0.663
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 0	DSI 3	519000	2595	23.56	24.50	1.242	-	-	0.11	0.339	0.421
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 0	DSI 3	519000	2595	23.56	24.50	1.242	-	-	-0.08	0.502	0.623
	FR1 n38	40M	QPSK	1	53	DFT-30	Front	15mm	Ant 2	DSI 3	519000	2595	23.28	24.70	1.387	-	-	-0.16	0.375	0.520
72	FR1 n38	40M	QPSK	1	53	DFT-30	Back	15mm	Ant 2	DSI 3	519000	2595	23.28	24.70	1.387	-	-	0.11	0.676	0.937
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 2	DSI 3	519000	2595	23.27	24.70	1.390	-	-	-0.17	0.368	0.512
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 2	DSI 3	519000	2595	23.27	24.70	1.390	-	-	-0.18	0.663	0.922
	FR1 n38	40M	QPSK	100	0	DFT-30	Back	15mm	Ant 2	DSI 3	519000	2595	23.18	24.70	1.419	-	-	0.09	0.652	0.925
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Front	15mm	Ant 0	DSI 3	518598	2592.99	23.25	24.00	1.189	-	-	-0.12	0.321	0.382
	FR1 n41(SA/EN-DC)	100M	QPSK	1	137	DFT-30	Back	15mm	Ant 0	DSI 3	518598	2592.99	23.25	24.00	1.189	-	-	-0.11	0.429	0.510
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	DSI 3	518598	2592.99	23.22	24.00	1.197	-	-	0.03	0.317	0.379
	FR1 n41(SA/EN-DC)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	DSI 3	518598	2592.99	23.22	24.00	1.197	-	-	0.18	0.418	0.500
	FR1 n41	100M	QPSK	1	137	DFT-30	Front	15mm	Ant 1	DSI 3	518598	2592.99	23.70	24.90	1.318	-	-	0.16	0.216	0.285
	FR1 n41	100M	QPSK	1	137	DFT-30	Back	15mm	Ant 1	DSI 3	518598	2592.99	23.70	24.90	1.318	-	-	-0.06	0.701	0.924
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 1	DSI 3	518598	2592.99	23.62	24.90	1.343	-	-	-0.06	0.213	0.286
73	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 1	DSI 3	518598	2592.99	23.62	24.90	1.343	-	-	0.01	0.719	0.965
	FR1 n41(EN-DC)	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 1	DSI 3	518598	2592.99	20.56	21.90	1.361	-	-	0.09	0.378	0.515
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 1	DSI 3	518598	2592.99	22.55	23.90	1.365	-	-	0.02	0.688	0.939
	FR1 n41	100M	QPSK	1	137	DFT-30	Front	15mm	Ant 2	DSI 3	518598	2592.99	22.82	24.20	1.374	-	-	0.18	0.346	0.475