

FCC SAR Test Report

APPLICANT : NOTHING TECHNOLOGY LIMITED
EQUIPMENT : Smart Phone
BRAND NAME : NOTHING
MODEL NAME : A059
FCC ID : 2AZEQ-24111
STANDARD : FCC 47 CFR Part 2 (2.1093)

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

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



Approved by: Si Zhang

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People's Republic of China



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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA490417	Rev. 01	Initial issue of report.	Dec. 10, 2024

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **NOTHING TECHNOLOGY LIMITED, Smart Phone, A059**, 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	1.18	0.95	0.57	1.59
		GSM1900	1.09	0.99	0.28	
	WCDMA	WCDMA II	1.17	0.92	0.45	
		WCDMA IV	1.11	0.96	0.99	
		WCDMA V	1.08	0.96	0.62	
	LTE	LTE Band 2	1.16	0.92	0.51	
		LTE Band 7	1.10	0.92	0.46	
		LTE Band 12/17	1.17	0.94	0.55	
		LTE Band 26/5	1.17	0.98	0.40	
		LTE Band 41/38	1.04	0.86	0.43	
		LTE Band 48	1.17	0.95	0.48	
		LTE Band 66/4	1.12	0.99	0.74	
	5G NR	FR1 n2	1.11	0.93	0.54	
		FR1 n5	1.09	0.94	0.56	
		FR1 n7	1.01	0.94	0.62	
		FR1 n12	1.06	0.94	0.81	
		FR1 n41/38	1.16	0.96	0.71	
		FR1 n48	1.15	0.98	0.90	
		FR1 n66	1.10	0.92	0.69	
	FR1 n77	1.14	0.97	0.45		
DTS	WLAN	2.4GHz WLAN	1.06	1.19	0.51	1.55
NII		5GHz WLAN	1.18	0.96	0.69	1.59
DSS	Bluetooth	2.4GHz Bluetooth	1.18	0.67	0.25	1.58
Highest 10g SAR Summary						
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)			Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM	GSM850	1.03			3.84
		GSM1900	1.51			
	WCDMA	WCDMA II	3.00			
		WCDMA IV	3.07			
		WCDMA V	1.69			
	LTE	LTE Band 2	3.11			
		LTE Band 7	2.81			
		LTE Band 12/17	1.17			
		LTE Band 41/38	3.11			
		LTE Band 48	2.71			
		LTE Band 66/4	3.05			
	5G NR	FR1 n2	3.02			
		FR1 n5	1.55			
		FR1 n7	2.96			
		FR1 n12	1.42			
		FR1 n41/38	2.84			
		FR1 n48	3.00			



		FR1 n66	3.02	
NII	WLAN	5GHz WLAN	3.18	3.84
Date of Testing:			2024/10/25 ~ 2024/11/17	

Remark:

1. This device supports LTE B17/B5/B4/B38 and B12/B26/B66/B41. Since the supported frequency span for LTE B17/B5/B4/B38 falls completely within the supports frequency span for LTE B12/B26/B66/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 B12/B26/B66/B41.
2. This device supports 5GNR n38 and 5GNR n41. Since the supported frequency span for 5GNR n38 falls completely within the supports frequency span for 5GNR n41, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for 5GNR 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.
	SAR01-SZ	CN1256	421272

Applicant	
Company Name	NOTHING TECHNOLOGY LIMITED
Address	Bedford House, 21A John Street, London, United Kingdom WC1N 2BF

Manufacturer	
Company Name	NOTHING TECHNOLOGY LIMITED
Address	Bedford House, 21A John Street, London, United Kingdom WC1N 2BF

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Smart Phone
Brand Name	NOTHING
Model Name	A059
FCC ID	2AZEQ-24111
IMEI Code	IMEI 1: 359866264028102 IMEI 2: 359866264028110
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 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 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3550 MHz ~ 3700 MHz, 3700 MHz ~ 3980 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 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 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac/ax VHT20/VHT40/HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	24111
SW Version	Nothing OS 3.1
GSM / (E)GPRS Dual 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, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
4. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
5. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
6. The device implements the receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
7. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneously together with WWAN/BT antenna, the device power will be reduced power at head/hotspot/body-worn/extremity conditions, more details as following tables.

For WiFi antenna transmitter				
Trigger Conditions	Antenna No.	Exposure conditions		Power Reduction
Receiver on WIFI Only	Ant 5/6/5+6 Ant 6/7/6+7	Head Standalone	Head all Position	Power level 1
Receiver on WIFI 2.4G+BT	Ant 5/6/5+6 Ant 6/7/6+7	Head Simultaneous	Head all Position	Power level 2
Receiver on WIFI 5G+BT				
Receiver on WWAN+WIFI 2.4G/5G				
Receiver on WWAN+WIFI5G + BT	Ant 5/6/5+6 Ant 6/7/6+7	Head Simultaneous	Head all Position	Power level 3
Receiver on WWAN + WIFI 2.4G + BT	Ant 5/6/5+6 Ant 6/7/6+7	Hotspot Standalone	Hotspot all Position	Power level 1
Hotspot on WIFI Only				
Hotspot on WIFI 2.4G+BT				
Hotspot on WIFI 5G+BT	Ant 5/6/5+6 Ant 6/7/6+7	Hotspot Simultaneous	Hotspot all Position	Power level 2
Hotspot on WWAN+WIFI 2.4G/5G				
Hotspot on WWAN+WIFI5G + BT				
Hotspot on WWAN + WIFI 2.4G + BT	Ant 5/6/5+6 Ant 6/7/6+7	Hotspot Simultaneous	Hotspot all Position	Power level 3
Receiver off WIFI Only	Ant 5/6/5+6 Ant 6/7/6+7	Body-Worn/Extremity Standalone	Body-Worn/Extremity all Position	Power level 1
Receiver off WIFI 2.4G+BT	Ant 5/6/5+6 Ant 6/7/6+7	Body-Worn/Extremity Simultaneous	Body-Worn/Extremity all Position	Power level 2
Receiver off WIFI 5G+BT				
Receiver off WWAN+WIFI 2.4G/5G				
Receiver off WWAN+WIFI5G + BT	Ant 5/6/5+6 Ant 6/7/6+7	Body-Worn/Extremity Simultaneous	Body-Worn/Extremity all Position	Power level 3
Receiver off WWAN + WIFI 2.4G + BT				
For BT antenna transmitter				
Trigger Conditions	Antenna No.	Exposure conditions		Power Reduction
Receiver on BT Only	Ant 6/7	Head Standalone	Head all Position	Power level 1
Receiver on WIFI 2.4G+BT	Ant 6/7	Head Simultaneous	Head all Position	Power level 2
Receiver on WIFI 5G+BT				
Receiver on WWAN+BT				
Receiver on WWAN+WIFI5G + BT	Ant 6/7	Head Simultaneous	Head all Position	Power level 3
Receiver on WWAN+WIFI2.4G + BT	Ant 6/7	Hotspot Standalone	Hotspot all Position	Power level 1
Hotspot on BT Only				
Hotspot on WIFI 2.4G+BT				
Hotspot on WIFI 5G+BT	Ant 6/7	Hotspot Simultaneous	Hotspot all Position	Power level 2
Hotspot on WWAN+BT				
Hotspot on WWAN+WIFI5G + BT				
Hotspot on WWAN + WIFI 2.4G + BT	Ant 6/7	Hotspot Simultaneous	Hotspot all Position	Power level 3
Receiver off BT Only	Ant 6/7	Body-Worn/Extremity Standalone	Body-Worn/Extremity all Position	Power level 1
Receiver off WIFI 2.4G+BT	Ant 6/7	Body-Worn/Extremity Simultaneous	Body-Worn/Extremity all Position	Power level 2
Receiver off WIFI 5G+BT				
Receiver off WWAN+ BT				
Receiver off WWAN+WIFI5G + BT	Ant 6/7	Body-Worn/Extremity Simultaneous	Body-Worn/Extremity all Position	Power level 3
Receiver off WWAN+WIFI2.4G + BT				

8. Bluetooth supports BR/EDR mode and don't supports BLE mode for ant7 only.
9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
10. This device supports HPUE for 5GNR n41 with higher power, so power class 2 was chosen to perform full SAR testing and power class 2 SAR can represent power class 3 SAR.
11. This device has NFC function and the NFC SAR report will be separately submitted.
12. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths (BW)
NSA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 30
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 60, 80, 100
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20
	n12	FDD	15	5, 10, 15
	n66	FDD	15	5, 10, 15, 20, 30
	n38	TDD	30	20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n48	TDD	30	20, 40
	n77	TDD	30	20, 30, 40, 60, 80, 100

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05																																																																													
FCC ID	2AZEQ-24111																																																																												
Equipment Name	Smart 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 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 48: 3550 MHz ~ 3700 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 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 48: 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	R16																																																																												
CA Support	Supported, Uplink and Downlink																																																																												
LTE MPR permanently built-in by design	<table><tr><th colspan="8">Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3</th></tr><tr><th rowspan="2">Modulation</th><th colspan="6">Channel bandwidth / Transmission bandwidth (N_{RB})</th><th rowspan="2">MPR (dB)</th></tr><tr><th>1.4 MHz</th><th>3.0 MHz</th><th>5 MHz</th><th>10 MHz</th><th>15 MHz</th><th>20 MHz</th></tr><tr><td>QPSK</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 1</td></tr><tr><td>16 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>≤ 5</td><td>≤ 4</td><td>≤ 8</td><td>≤ 12</td><td>≤ 16</td><td>≤ 18</td><td>≤ 2</td></tr><tr><td>64 QAM</td><td>> 5</td><td>> 4</td><td>> 8</td><td>> 12</td><td>> 16</td><td>> 18</td><td>≤ 3</td></tr><tr><td>256 QAM</td><td colspan="6">≥ 1</td><td>≤ 5</td></tr></table>							Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3								Modulation	Channel bandwidth / Transmission bandwidth (N _{RB})						MPR (dB)	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3	256 QAM	≥ 1						≤ 5
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64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3																																																																						
256 QAM	≥ 1						≤ 5																																																																						
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)																																																																												
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.																																																																												
Power reduction applied to satisfy SAR compliance	Yes, when operating in receiver detect/hotspot mode mechanism, head/ body-worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.																																																																												
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.																																																																												
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 3 carriers in the downlink and 2 carriers in the uplink.																																																																												

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20407	824.7	20415	825.5	20425	826.5	20450	829				
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 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)					
L	23755		706.5		23780		709					
M	23790		710		23790		710					
H	23825		713.5		23800		711					

LTE Band 26												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz			
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5		
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5		
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5		
LTE Band 38												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580	37875	2582.5		
M	38000	2595	38000	2595	38000	2595	38000	2595	38000	2595		
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610	38125	2607.5		
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)	Ch. #	Freq. (MHz)		
L	39675	2498.5	39700	2501	39725	2503.5	39750	2506	39775	2508.5		
LM	40148	2545.8	40160	2547	40173	2548.3	40185	2549.5	40197	2550.7		
M	40620	2593	40620	2593	40620	2593	40620	2593	40620	2593		
HM	41093	2640.3	41080	2639	41068	2637.8	41055	2636.5	41042	2635.2		
H	41565	2687.5	41540	2685	41515	2682.5	41490	2680	41465	2677.5		
LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770
LTE Band 48												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)		
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560	55365	3562.5		
LM	55810	3607	55815	3607.5	55820	3608	55830	3609	55840	3610		
MH	56170	3643	56165	3642.5	56160	3642	56150	3641	56140	3640		
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690	56615	3687.5		

<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	Ant	Full	DSI5	DSI6	DSI7	DSI8	DSI9
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 66/4	Ant 2	24.5	24.5	24.5	24	23	20
LTE Band 66/4	Ant 3	24.5	18.5	18	23	22	22
LTE Band 66/4	Ant 4	24.5	19	18	23	22	21
LTE Band 26/5	Ant 0	25	25	25	25	25	25
LTE Band 26/5	Ant 1	25	22.5	21.5	25	25	25
LTE Band 12/17	Ant 0	25	25	25	25	25	25
LTE Band 12/17	Ant 1	25	23.5	22.5	25	25	23.5
LTE Band 41/38	Ant 2	24.5	24.5	24.5	24.5	24.5	24
LTE Band 41/38	Ant 3	24.5	18.5	17.5	24.5	23.5	21
LTE Band 41/38	Ant 4	24.5	19	18.5	23	22	21

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n48: 3550 MHz ~ 3700 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3550 MHz ~ 3700 MHz, 3700 MHz ~ 3980 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 n2	LTE B5/12
LTE Anchor Bands for n5	LTE B2/7/66/48
LTE Anchor Bands for n7	LTE B2/4/5/66
LTE Anchor Bands for n41	LTE B2/66
LTE Anchor Bands for n66	LTE B5/7/12
LTE Anchor Bands for n77	LTE B5/12/41

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

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

NR Band 7								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510
M	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560

NR Band 12								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	140300	701.5	140800	704	141300	706.5	141800	709
M	141500	707.5	141500	707.5	141500	707.5	141500	707.5
H	142700	713.5	142200	711	141700	708.5	141200	706

NR Band 66										
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz	
	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
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353000	1765

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

NR Band 41																	
Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M 518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H 535998	2679.99	534996	2674.98	534000	2670	531996	2659.98	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 48				
	Bandwidth 20MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637334	3560.01	638000	3570
M	641666	3624.99	641666	3624.99
H	646000	3690	645332	3679.98

NR Band 77												
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 100MHz	
	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	648668	3730.02	649334	3740.01	650000	3750
M	656000	3840	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840
H	664666	3969.99	664332	3964.98	664000	3960	663332	3949.98	662666	3939.99	662000	3930

For Part96

NR Band 77												
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	637334	3560.01	637668	3565.02	638000	3570	638668	3580.02	639334	3590.01	640000	3600
M	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99	641666	3624.99
H	646000	3690	645666	3684.99	645332	3624.99	644666	3669.99	644000	3660	643332	3649.98

For <3450 MHz ~ 3550 MHz >

NR Band 77												
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 60MHz		Bandwidth 80MHz		Bandwidth 100MHz	
	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	632000	3480	632668	3490.02		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636000	3540	635666	3534.99	635332	3529.98	634666	3519.99	634000	3510		

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

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
SA	FR1 n38	TDD	30	20, 30, 40
	FR1 n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100

2) NR SA Bands Tune up:

Band	Ant	Full	DSI5	DSI6	DSI7	DSI8	DSI9
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
n41/38_PC3	Ant 2	24.5	24.5	24.5	22	21	22
n41/38_PC3	Ant 3	24.5	17	16	22.5	21.5	19.5
n41/38_PC3	Ant 4	24.5	17.5	16.5	21.5	20.5	19.5

5. Smart Transmit feature for RF Exposure compliance

The FCC RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency $\leq 6\text{GHz}$). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

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

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System (EFS) version 20 to enable the Smart Transmit GEN1 Feature.

<Terminologies in this report>

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

<SAR Characterization>

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

<SAR design target>

Item	Uncertainty dB (k=2)
Total uncertainty	1.0

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

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



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

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

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

Band	Antenna	DSI5	DSI6	DSI7	DSI8	DSI9	Pmax*
		Head Standalone (Receive on)	Head Simultaneous (Receive on)	Extremity/Body worn Standalone (Receive off)	Extremity/Body worn Simultaneous (Receive off)	Hotspot	
GSM850	ANT 0	32.0	32.0	31.2	31.2	27.9	23.5
GSM850	ANT 1	21.5	20.5	27.7	27.7	21.5	23.5
GSM1900	ANT 2	33.9	33.9	27.8	27.8	19.5	20.5
GSM1900	ANT 3	17.0	16.5	29.2	29.2	23.0	20.5
GSM1900	ANT 4	18.0	17.5	28.1	28.1	21.8	20.5
WCDMA II	ANT 2	34.6	34.6	21.5	20.5	19.5	24.0
WCDMA II	ANT 3	16.5	15.5	22.0	21.0	20.5	24.0
WCDMA II	ANT 4	16.5	15.5	21.5	20.5	19.5	24.0
WCDMA IV	ANT 2	32.3	32.3	22.5	21.5	18.5	24.0
WCDMA IV	ANT 3	17.0	16.0	22.0	20.5	21.0	24.0
WCDMA IV	ANT 4	17.0	16.0	21.5	20.5	20.0	24.0
WCDMA V	ANT 0	30.7	30.7	30.4	30.4	26.9	24.0
WCDMA V	ANT 1	21.5	21.0	27.7	27.7	23.0	24.0
LTE Band 2	ANT 2	34.8	34.8	22.0	21.0	19.5	23.5
LTE Band 2	ANT 3	19.0	18.5	22.5	21.0	20.5	23.5
LTE Band 2	ANT 4	18.5	17.5	22.0	21.0	20.0	23.5
LTE Band 66/4	ANT 2	32.5	32.5	23.0	22.0	19.0	23.5
LTE Band 66/4	ANT 3	17.5	17.0	22.0	21.0	21.0	23.5
LTE Band 66/4	ANT 4	18.0	17.0	22.0	21.0	20.0	23.5
LTE Band 26/5	ANT 0	31.1	31.1	31.4	31.4	28.1	24.0
LTE Band 26/5	ANT 1	21.5	20.5	29.8	29.8	25.1	24.0
LTE Band 7	ANT 2	30.1	30.1	22.0	20.5	22.0	23.5
LTE Band 7	ANT 3	15.5	14.5	20.5	19.5	18.0	23.5
LTE Band 7	ANT 4	16.5	15.5	19.0	18.0	19.0	23.5
LTE Band 12/17	ANT 0	32.6	32.6	32.2	32.2	29.3	24.0
LTE Band 12/17	ANT 1	22.5	21.5	28.4	28.4	22.5	24.0
LTE Band 41/38	ANT 2	29.5	29.5	27.0	27.0	21.0	21.5
LTE Band 41/38	ANT 3	15.5	14.5	27.3	20.5	18.0	21.5
LTE Band 41/38	ANT 4	16.0	15.5	20.0	19.0	18.0	21.5
LTE Band 48	ANT 3	15.0	14.5	18.5	17.5	17.0	21.5
LTE Band 48	ANT 4	16.0	15.5	19.5	18.5	19.5	21.5
LTE Band 48	ANT 5	16.5	15.5	29.7	29.7	25.4	20.5
LTE Band 48	ANT 6	18.0	17.0	21.3	21.3	22.7	19.5
n2	ANT 2	33.9	33.9	21.0	20.0	19.0	23.5
n2	ANT 3	18.0	17.5	22.5	21.5	21.0	23.5
n2	ANT 4	17.0	16.0	22.0	21.0	19.0	23.5
n5	ANT 0	30.0	30.0	30.3	30.3	27.0	24.0
n5	ANT 1	22.5	22.0	28.1	28.1	23.0	24.0
n7	ANT 2	28.8	28.8	21.5	20.5	21.5	23.5
n7	ANT 3	15.0	14.5	21.0	20.0	19.5	23.5
n7	ANT 4	16.0	15.5	20.5	19.5	18.0	23.5
n12	ANT 0	31.2	31.2	30.8	30.8	28.0	24.0
n12	ANT 1	21.5	21.0	26.6	26.6	22.5	24.0
n66	ANT 2	32.4	32.4	22.5	21.5	19.5	23.5
n66	ANT 3	17.5	17.0	22.5	21.5	22.0	23.5

n66	ANT 4	17.5	17.0	22.5	21.5	21.0	23.5
n41/38_PC3	ANT 2	28.4	28.4	21.0	20.0	21.0	23.5
n41_PC2	ANT 2	28.4	28.4	21.0	20.0	21.0	24.5
n41/38_PC3	ANT 3	16.0	15.0	21.5	20.5	18.5	23.5
n41_PC2	ANT 3	16.0	15.0	21.5	20.5	18.5	24.5
n41/38_PC3	ANT 4	16.5	15.5	20.5	19.5	18.5	23.5
n41_PC2	ANT 4	16.5	15.5	20.5	19.5	18.5	24.5
n48	ANT 3	15.5	15.0	18.0	17.0	17.5	23.5
n48	ANT 4	16.0	15.5	19.5	18.5	20.0	23.5
n48	ANT 5	15.5	15.0	25.9	25.9	22.9	21.5
n48	ANT 6	16.0	15.0	22.7	20.5	18.5	21.5
n77	ANT 3	17.0	16.0	18.5	17.5	18.5	23.5
n77	ANT 4	16.5	16.0	20.0	19.0	20.0	23.5
n77	ANT 5	15.0	14.0	20.0	19.0	21.0	21.5
n77	ANT 6	15.5	15.0	18.0	17.0	17.5	22.5

Note:

1. * P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to P_{max} + total uncertainty.
2. **All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).
3. The max allowed output power is the P_{limit} + total uncertainty, and if P_{limit} is higher than P_{max} , the device output power will be P_{max} instead.

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

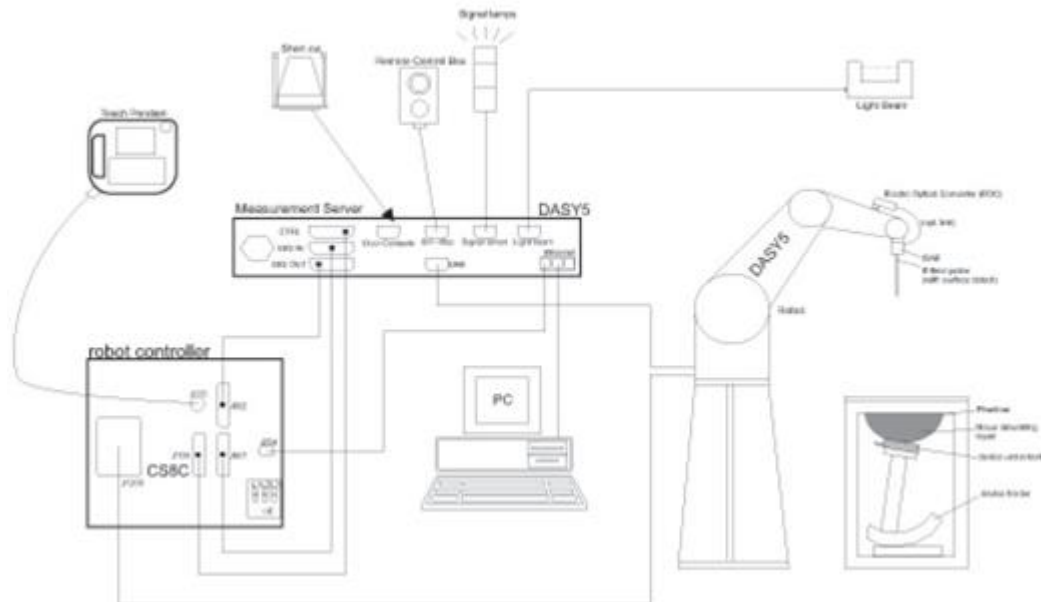
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 or Win10 and the DASY5 software.
- Remote control and teach pendant as well as additional circuitry for robot safety such as warning lamps, etc.
- The phantom, the device holder and other accessories according to the targeted measurement.

8.1 E-Field Probe

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

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – 10 GHz Linearity: ± 0.2 dB (30 MHz – 10 GHz)	
Directivity	± 0.3 dB in TSL (rotation around probe axis) ± 0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 μ W/g – >100 mW/g Linearity: ± 0.2 dB (noise: typically < 1 μ W/g)	
Dimensions	Overall length: 337 mm (tip: 20 mm) Tip diameter: 2.5 mm (body: 12 mm) Typical distance from probe tip to dipole centers: 1 mm	

8.2 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.

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



Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

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

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

<ELI Phantom>

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

The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices or for evaluating transmitters operating at low frequencies. ELI is fully compatible with standard and all known tissue simulating liquids.

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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



Mounting Device for Hand-Held Transmitters



Mounting Device Adaptor for Wide-Phones

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

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



Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

9.1 Spatial Peak SAR Evaluation

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

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

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

- (a) Extraction of the measured data (grid and values) from the Zoom Scan
- (b) Calculation of the SAR value at every measurement point based on all stored data (A/D values and measurement parameters)
- (c) Generation of a high-resolution mesh within the measured volume
- (d) Interpolation of all measured values from the measurement grid to the high-resolution grid
- (e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
- (f) Calculation of the averaged SAR within masses of 1g and 10g

9.2 Power Reference Measurement

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

9.3 Area Scan

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

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

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

9.4 Zoom Scan

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

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: $\Delta x_{\text{Zoom}}, \Delta y_{\text{Zoom}}$			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{\text{Zoom}}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{\text{Zoom}}(1)$: between 1 st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{\text{Zoom}}(n>1)$: between subsequent points	$\leq 1.5 \cdot \Delta z_{\text{Zoom}}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm
Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.				
* When zoom scan is required and the <i>reported</i> SAR from the <i>area scan based 1-g SAR estimation</i> procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.				

9.5 Volume Scan Procedures

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

9.6 Power Drift Monitoring

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

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 15, 2021	Dec. 13, 2024
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 15, 2024
SPEAG	1750MHz System Validation Kit	D1750V2	1090	Feb. 24, 2022	Feb. 22, 2025
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 18, 2024
SPEAG	2450MHz System Validation Kit	D2450V2	924	Nov. 03, 2023	Nov. 02, 2026
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 18, 2024
SPEAG	3500MHz System Validation Kit	D3500V2	1076	May 09, 2022	May 07, 2025
SPEAG	3700MHz System Validation Kit	D3700V2	1037	May 09, 2022	May 07, 2025
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 19, 2022	Aug. 17, 2025
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 11, 2024
SPEAG	Data Acquisition Electronics	DAE4	1437	Mar. 14, 2024	Mar. 13, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7576	Oct. 10, 2024	Oct. 09, 2025
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1671	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Radio communication analyzer	MT8821C	6272416837	Apr. 08, 2024	Apr. 07, 2025
Anritsu	Radio communication analyzer	MT8821C	6272416846	Apr. 08, 2024	Apr. 07, 2025
Anritsu	Radio communication analyzer	MT8821C	6272416863	Apr. 08, 2024	Apr. 07, 2025
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 03, 2024	Jul. 02, 2025
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 15, 2024	Oct. 14, 2025
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Feb. 19, 2024	Feb. 18, 2025
Agilent	Signal Generator	N5181A	MY50145381	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Power Sensor	MA2411B	1542004	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Power Meter	ML2495A	1339473	Dec. 28, 2023	Dec. 27, 2024
R&S	Power Sensor	NRP50S	101254	Apr. 08, 2024	Apr. 07, 2025
R&S	Power Sensor	NRP8S	109228	Apr. 08, 2024	Apr. 07, 2025
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 28, 2023	Dec. 27, 2024
R&S	Spectrum Analyzer	FSP7	100818	Jul. 04, 2024	Jul. 03, 2025
TES	Hygrometer	1310	200505600	Jul. 08, 2024	Jul. 07, 2025
Anymetre	Thermo-Hygrometer	JR593	2015030903	Jan. 02, 2024	Jan. 01, 2025
Anymetre	Thermo-Hygrometer	JR593	2015102801	Jan. 02, 2024	Jan. 01, 2025
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Jinkexinhua	Attenuator	10db-8G	N/A	Note 1	

Note:

- Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the power meter and the path to the system check source to monitor the actual power level fed to the system check
- Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
- The justification data of dipole can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

11. System Verification

11.1 Tissue Simulating Liquids

For the measurement of the field distribution inside the SAM phantom with DASY, the phantom must be filled with around 25 liters of homogeneous body tissue simulating liquid. For head SAR testing, the liquid height from the ear reference point (ERP) of the phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 11.1. For body SAR testing, the liquid height from the center of the flat phantom to the liquid top surface is larger than 15 cm, which is shown in Fig. 11.2.

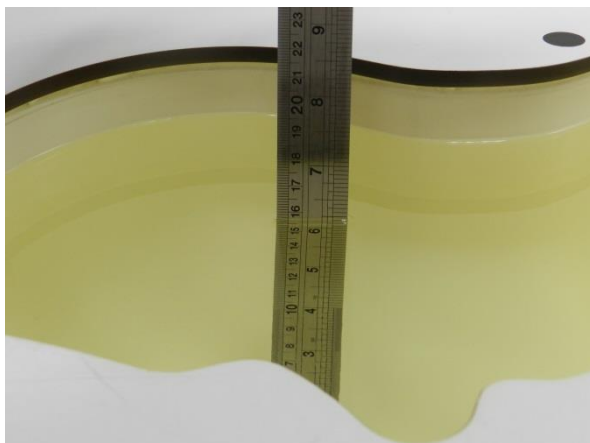


Fig 11.1 Photo of Liquid Height for Head SAR



Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (°C)	Conductivity (σ)	Permittivity (ε _r)	Conductivity Target (σ)	Permittivity Target (ε _r)	Delta (σ) (%)	Delta (ε _r) (%)	Limit (%)	Date
750	Head	22.3	0.904	41.768	0.89	41.90	1.57	-0.32	±5	2024/10/25
750	Head	22.4	0.905	43.086	0.89	41.90	1.69	2.83	±5	2024/11/11
835	Head	22.1	0.935	42.341	0.90	41.50	3.89	2.03	±5	2024/10/27
835	Head	22.5	0.930	42.852	0.90	41.50	3.33	3.26	±5	2024/11/12
1750	Head	22.4	1.351	39.760	1.37	40.10	-1.39	-0.85	±5	2024/10/31
1750	Head	22.7	1.352	41.199	1.37	40.10	-1.31	2.74	±5	2024/11/13
1900	Head	22.3	1.436	38.697	1.40	40.00	2.57	-3.26	±5	2024/11/2
1900	Head	22.1	1.434	40.980	1.40	40.00	2.43	2.45	±5	2024/11/13
2450	Head	22.7	1.826	39.430	1.80	39.20	1.44	0.59	±5	2024/11/4
2450	Head	22.2	1.798	40.250	1.80	39.20	-0.11	2.68	±5	2024/11/14
2600	Head	22.2	1.939	39.196	1.96	39.00	-1.07	0.50	±5	2024/11/7
2600	Head	22.5	1.916	40.041	1.96	39.00	-2.24	2.67	±5	2024/11/14
3500	Head	22.3	2.851	36.434	2.91	37.90	-2.03	-3.87	±5	2024/11/9
3500	Head	22.6	2.981	39.219	2.91	37.90	2.44	3.48	±5	2024/11/15
3700	Head	22.5	3.003	36.123	3.12	37.70	-3.75	-4.18	±5	2024/11/10
3700	Head	22.3	3.141	38.960	3.12	37.70	0.67	3.34	±5	2024/11/15
3900	Head	22.5	3.249	35.889	3.33	37.51	-2.43	-4.32	±5	2024/11/11
3900	Head	22.1	3.312	38.755	3.33	37.51	-0.54	3.32	±5	2024/11/15
5250	Head	22.6	4.590	35.763	4.71	35.95	-2.55	-0.52	±5	2024/11/10
5250	Head	22.3	4.527	36.985	4.71	35.95	-3.89	2.88	±5	2024/11/15
5600	Head	22.1	4.953	35.269	5.07	35.50	-2.31	-0.65	±5	2024/11/12
5600	Head	22.7	4.856	36.528	5.07	35.50	-4.22	2.90	±5	2024/11/16
5750	Head	22.5	5.112	35.065	5.22	35.35	-2.07	-0.81	±5	2024/11/14
5750	Head	22.2	5.033	36.220	5.22	35.35	-3.58	2.46	±5	2024/11/17

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 (%)
2024/10/25	750	Head	250	1099	7576	1437	2.270	8.540	9.08	6.32
2024/11/11	750	Head	250	1099	7576	1437	2.160	8.540	8.64	1.17
2024/10/27	835	Head	250	4d162	7576	1437	2.450	9.640	9.8	1.66
2024/11/12	835	Head	250	4d162	7576	1437	2.500	9.640	10	3.73
2024/10/31	1750	Head	250	1090	7576	1437	9.110	37.000	36.44	-1.51
2024/11/13	1750	Head	250	1090	7576	1437	8.970	37.000	35.88	-3.03
2024/11/2	1900	Head	250	5d182	7576	1437	10.100	39.600	40.4	2.02
2024/11/13	1900	Head	250	5d182	7576	1437	10.300	39.600	41.2	4.04
2024/11/4	2450	Head	250	924	7576	1437	12.800	52.300	51.2	-2.10
2024/11/14	2450	Head	250	924	7576	1437	13.200	52.300	52.8	0.96
2024/11/7	2600	Head	250	1070	7576	1437	13.700	56.200	54.8	-2.49
2024/11/14	2600	Head	250	1070	7576	1437	14.300	56.200	57.2	1.78
2024/11/9	3500	Head	100	1076	7576	1437	6.160	66.200	61.6	-6.95
2024/11/15	3500	Head	100	1076	7576	1437	6.590	66.200	65.9	-0.45
2024/11/10	3700	Head	100	1037	7576	1437	6.690	66.700	66.9	0.30
2024/11/15	3700	Head	100	1037	7576	1437	7.160	66.700	71.6	7.35
2024/11/11	3900	Head	100	1022	7576	1437	7.140	66.400	71.4	7.53
2024/11/15	3900	Head	100	1022	7576	1437	6.600	66.400	66	-0.60
2024/11/10	5250	Head	100	1341	7576	1437	8.030	80.700	80.3	-0.50
2024/11/15	5250	Head	100	1341	7576	1437	7.740	80.700	77.4	-4.09
2024/11/12	5600	Head	100	1341	7576	1437	7.870	84.500	78.7	-6.86
2024/11/16	5600	Head	100	1341	7576	1437	8.800	84.500	88	4.14
2024/11/14	5750	Head	100	1341	7576	1437	7.790	80.600	77.9	-3.35
2024/11/17	5750	Head	100	1341	7576	1437	8.390	80.600	83.9	4.09

<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 (%)
2024/10/25	750	Head	250	1099	7576	1437	1.430	5.650	5.72	1.24
2024/11/11	750	Head	250	1099	7576	1437	1.430	5.650	5.72	1.24
2024/10/27	835	Head	250	4d162	7576	1437	1.600	6.260	6.4	2.24
2024/11/12	835	Head	250	4d162	7576	1437	1.620	6.260	6.48	3.51
2024/10/31	1750	Head	250	1090	7576	1437	4.940	19.500	19.76	1.33
2024/11/13	1750	Head	250	1090	7576	1437	4.780	19.500	19.12	-1.95
2024/11/2	1900	Head	250	5d182	7576	1437	5.310	20.200	21.24	5.15
2024/11/13	1900	Head	250	5d182	7576	1437	5.390	20.200	21.56	6.73
2024/11/4	2450	Head	250	924	7576	1437	5.840	24.500	23.36	-4.65
2024/11/14	2450	Head	250	924	7576	1437	6.170	24.500	24.68	0.73
2024/11/7	2600	Head	250	1070	7576	1437	6.020	24.600	24.08	-2.11
2024/11/14	2600	Head	250	1070	7576	1437	6.440	24.600	25.76	4.72
2024/11/9	3500	Head	100	1076	7576	1437	2.390	25.500	23.9	-6.27
2024/11/15	3500	Head	100	1076	7576	1437	2.530	25.500	25.3	-0.78
2024/11/10	3700	Head	100	1037	7576	1437	2.580	24.600	25.8	4.88
2024/11/15	3700	Head	100	1037	7576	1437	2.610	24.600	26.1	6.10
2024/11/11	3900	Head	100	1022	7576	1437	2.490	23.700	24.9	5.06
2024/11/15	3900	Head	100	1022	7576	1437	2.300	23.700	23	-2.95
2024/11/10	5250	Head	100	1341	7576	1437	2.300	23.100	23	-0.43
2024/11/15	5250	Head	100	1341	7576	1437	2.170	23.100	21.7	-6.06
2024/11/12	5600	Head	100	1341	7576	1437	2.280	24.000	22.8	-5.00
2024/11/16	5600	Head	100	1341	7576	1437	2.480	24.000	24.8	3.33
2024/11/14	5750	Head	100	1341	7576	1437	2.180	22.700	21.8	-3.96
2024/11/17	5750	Head	100	1341	7576	1437	2.330	22.700	23.3	2.64

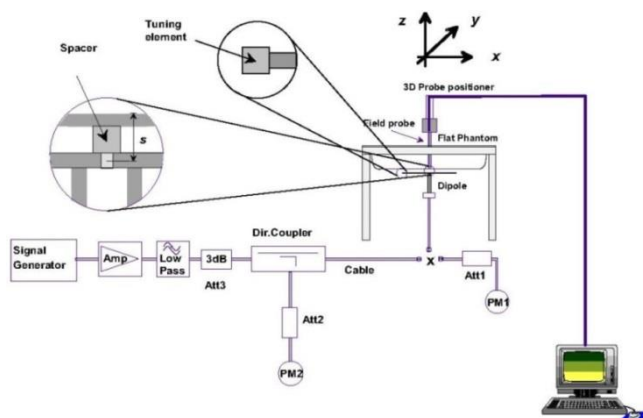


Fig 11.3.1 System Performance Check Setup



Fig 11.3.2 Setup Photo

12. RF Exposure Positions

12.1 Ear and handset reference point

Figure 12.1.1 shows the front, back, and side views of the SAM phantom. The center-of-mouth reference point is labeled “M,” the left ear reference point (ERP) is marked “LE,” and the right ERP is marked “RE.” Each ERP is 15 mm along the B-M (back-mouth) line behind the entrance-to-ear-canal (EEC) point, as shown in Figure 12.1.2 The Reference Plane is defined as passing through the two ear reference points and point M. The line N-F (neck-front), also called the reference pivoting line, is normal to the Reference Plane and perpendicular to both a line passing through RE and LE and the B-M line (see Figure 12.1.3). Both N-F and B-M lines should be marked on the exterior of the phantom shell to facilitate handset positioning. Posterior to the N-F line the ear shape is a flat surface with 6 mm thickness at each ERP, and forward of the N-F line the ear is truncated, as illustrated in Figure 12.1.2. The ear truncation is introduced to preclude the ear lobe from interfering with handset tilt, which could lead to unstable positioning at the cheek.

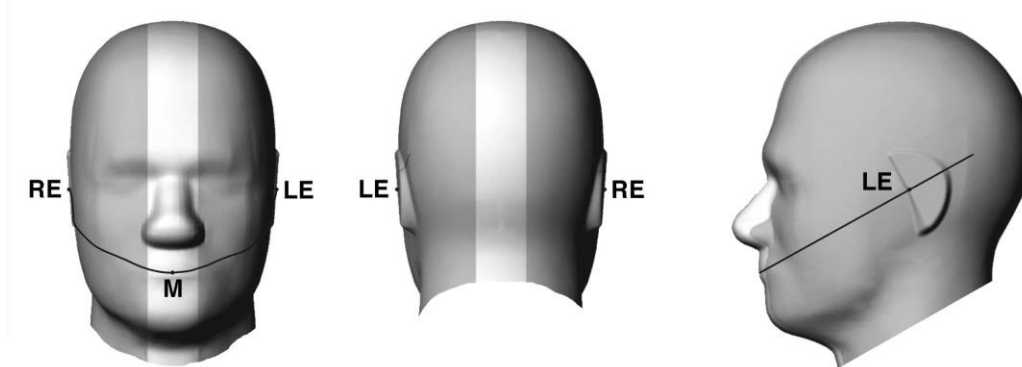


Fig 12.1.1 Front, back, and side views of SAM twin phantom

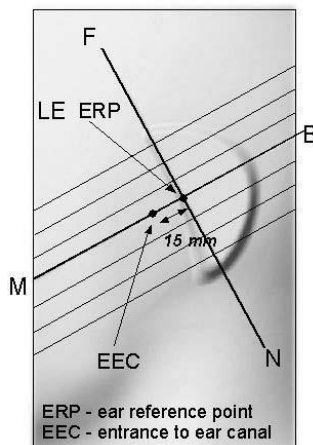


Fig 12.1.2 Close-up side view of phantom showing the ear region.

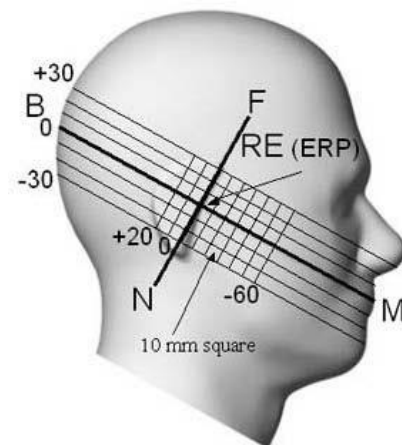


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 Definition of the cheek position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. Define two imaginary lines on the handset—the vertical centerline and the horizontal line. The vertical centerline passes through two points on the front side of the handset—the midpoint of the width w_t of the handset at the level of the acoustic output (point A in Figure 12.2.1 and Figure 12.2.2), and the midpoint of the width w_b of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 12.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the handset. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 12.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 12.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 12.2.3. The actual rotation angles should be documented in the test report.

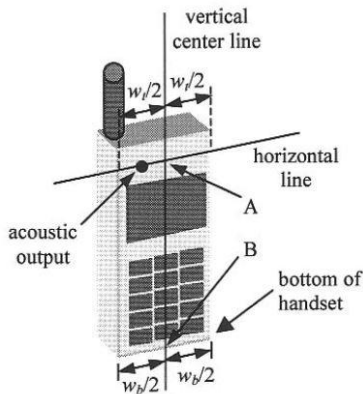


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case"

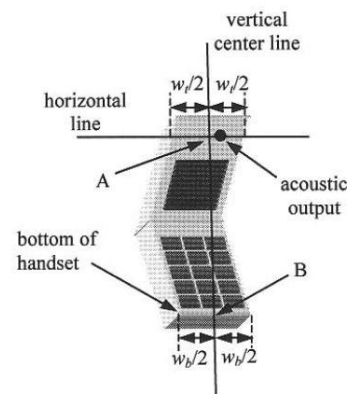


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

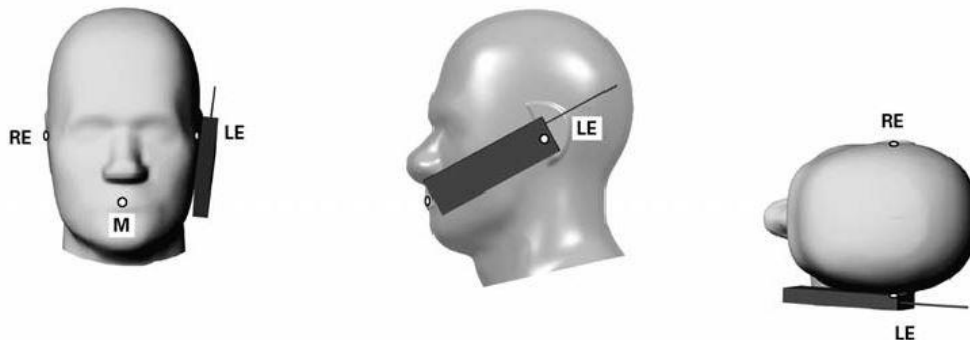


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

1. Ready the handset for talk operation, if necessary. For example, for handsets with a cover piece (flip cover), open the cover. If the handset can transmit with the cover closed, both configurations must be tested.
2. While maintaining the orientation of the handset, move the handset away from the pinna along the line passing through RE and LE far enough to allow a rotation of the handset away from the cheek by 15°.
3. Rotate the handset around the horizontal line by 15°.
4. While maintaining the orientation of the handset, move the handset towards the phantom on the line passing through RE and LE until any part of the handset touches the ear. The tilt position is obtained when the contact point is on the pinna. See Figure 12.3.1. If contact occurs at any location other than the pinna, e.g., the antenna at the back of the phantom head, the angle of the handset should be reduced. In this case, the tilt position is obtained if any point on the handset is in contact with the pinna and a second point

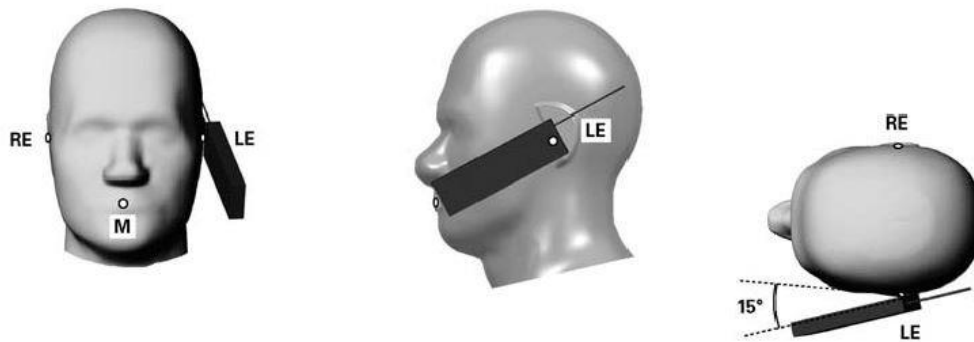


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

Body-worn operating configurations are tested with the belt-clips and holsters attached to the device and positioned against a flat phantom in a normal use configuration (see Figure 11.4). Per KDB648474 D04v01r03, body-worn accessory exposure is typically related to voice mode operations when handsets are carried in body-worn accessories. The body-worn accessory procedures in FCC KDB 447498 D01v06 should be used to test for body-worn accessory SAR compliance, without a headset connected to it. This enables the test results for such configuration to be compatible with that required for hotspot mode when the body-worn accessory test separation distance is greater than or equal to that required for hotspot mode, when applicable. When the reported SAR for body-worn accessory, measured without a headset connected to the handset is $> 1.2 \text{ W/kg}$, the highest reported SAR configuration for that wireless mode and frequency band should be repeated for that body-worn accessory with a handset attached to the handset.

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

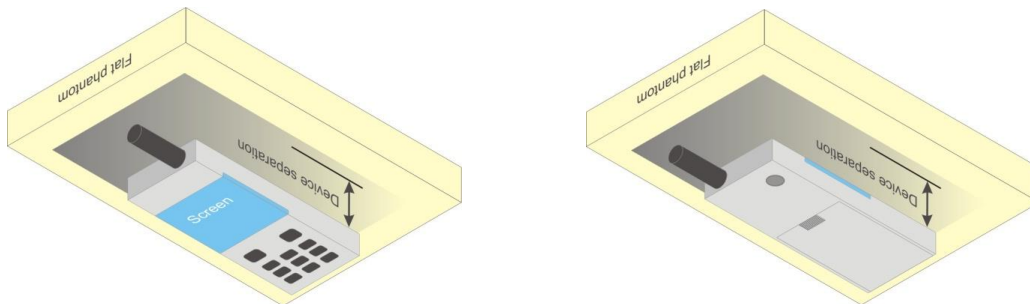


Fig 12.4 Body Worn Position

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

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

Note 3: For subtest 1 the β_c/β_d ratio of 11/15 for the TFC during the measurement period (TF1, TF0) is achieved by setting the signalled gain factors for the reference TFC (TF1, TF1) to $\beta_c = 10/15$ and $\beta_d = 15/15$.

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

Note 5: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 6: For subtests 2, 3 and 4, UE may perform E-DPDCH power scaling at max power which could results in slightly smaller MPR values.

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

- a. The EUT was connected to Base Station referred to the Setup Configuration below
- b. The RF path losses were compensated into the measurements.
- c. A call was established between EUT and Base Station with following setting:
 - i. Set RMC 12.2Kbps + HSDPA mode.
 - ii. Set Cell Power = -25 dBm
 - iii. Set HS-DSCH Configuration Type to FRC (H-set 12, QPSK)
 - iv. Select HSDPA Uplink Parameters
 - v. Set Gain Factors (β_c and β_d) and parameters were set according to each Specific sub-test in the following table, C10.1.4, quoted from the TS 34.121
 - a). Subtest 1: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

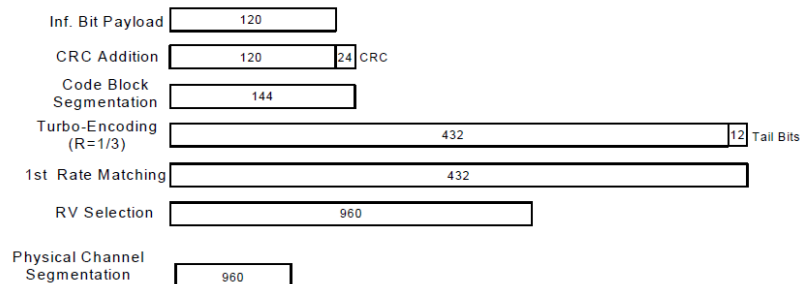


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK) Setup Configuration

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

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

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

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

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

Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).

Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default.

Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.

Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

Setup Configuration

<WCDMA Conducted Power>

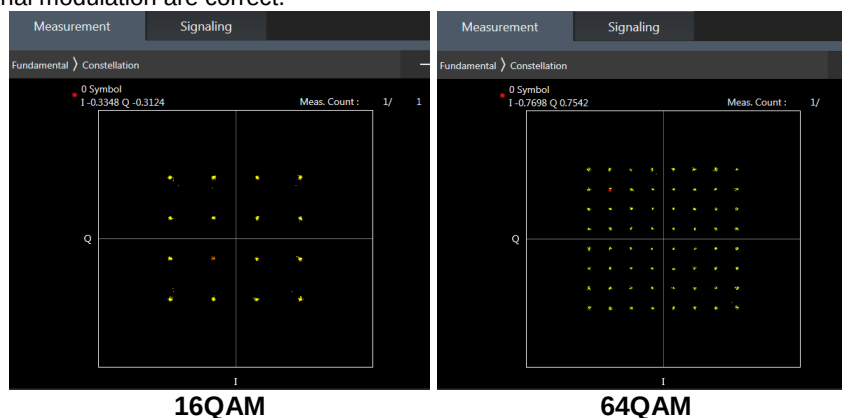
General Note:

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

<LTE Conducted Power>

General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B17 / B5 / B4 / B38 SAR test was covered by B12 / B26 / B66 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
 - a. the maximum output power, including tolerance, for the smaller band is $\leq$ the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to May 2017 TCB workshop, for 16QAM and 64QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 64QAM and 16QAM signal modulation are correct.



<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

- 3GPP TS 36.211 section 4.2 for Type 2 Frame Structure and Table 4.2-2 for uplink-downlink configurations
- “special subframe S” contains both uplink and downlink transmissions, it has been taken into consideration to determine the transmission duty factor according to the worst case uplink and downlink cyclic prefix requirements for UpPTS
- Establishing connections with base station simulators ensure a consistent means for testing SAR and recommended for evaluating SAR. The Anritsu MT8820C (firmware: #22.52#004) was used for LTE output power measurements and SAR testing.

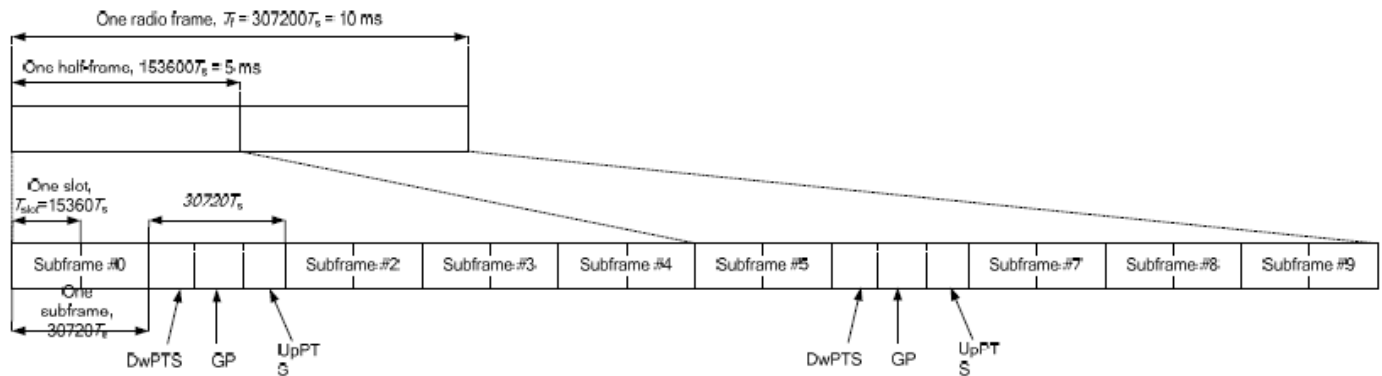


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 3

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

<LTE Carrier Aggregation>

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

General Note:

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

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	CA_5A-7A	7A		1	CA_41D		
2	CA_7C		3CC-3	2	CA_41A-41C	41A	
3	CA_38C	38C		3	CA_7C-66A	7C,66A	
4	CA_41C	41C	3CC-2	4	CA_5A-7C		
5	CA_7A-7A			5	CA_4A-7C	4A,7C	
6	CA_41A-41A	41A		6	CA_2A-2A-4A		
7	CA_66B			7	CA_2A-2A-5A		
8	CA_66C		3CC-11	8	CA_2A-2A-66A		
9	CA_66A-66A		3CC-13	9	CA_2A-4A-4A		
10	CA_4A-7A	4A,7A		10	CA_2A-4A-5A		
11	CA_7A-66A	7A,66A	3CC-22	11	CA_2A-66C		
12	CA_2A-2A		3CC-6	12	CA_4A-4A-5A		
13	CA_2A-4A		3CC-6	13	CA_5A-66A-66A		
14	CA_2A-5A		3CC-7	14	CA_48A-66A-66A		
15	CA_2A-66A		3CC-8	15	CA_12A-66A-66A		
16	CA_4A-4A	4A-4A	3CC-9	16	CA_12A-66C		
17	CA_4A-5A	4A	3CC-10	17	CA_2A-12A-66A		
18	CA_5A-66A	66A	3CC-13	18	CA_2A-4A-12A		
19	CA_2A-48A	48A		19	CA_2C-66A		
20	CA_48A-48A	48A		20	CA_4A-4A-12A		
21	CA_48A-66A	48A,66A	3CC-14	21	CA_2A-5A-66A		
22	CA_48C	48A		22	CA_7A-66A-66A		
23	CA_4A-48A	4A,48A		23			
24	CA_5A-48A	48A		24			
25	CA_12A-66A	66A	3CC-15	25			
26	CA_2A-12A		3CC-17	26			
27	CA_2C		3CC-19	27			
28	CA_4A-12A	4A	3CC-20	28			
29	CA_26A-41A	41A		29			
30	CA_2A-7A			30			
31	CA_2A-17A			31			
32	CA_4A-17A	4A		32			

LTE Carrier Aggregation Conducted Power (Downlink)

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

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

LTE 4x4 MIMO (Downlink)

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

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

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

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation
Intra-band	Antenna Tx
38C	Ant 2/4/3
41C	Ant 2/4/3

<Intra-band>
General Note:

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

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/n12/n66/n38/n41/n48/n77 is SA mode.
2. 5G NR n2/n5/n7/n66/n41/n77 is NSA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
 - b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
 - c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
 - d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
 - f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
5. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
6. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
7. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
8. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
9. This device supports HPUE for 5G NR n41 with higher power, so HPUE mode was chosen to perform full SAR testing and HPUE SAR can represent power class 3 level SAR.

<3GPP 38.101 MPR for EN-DC>
Table 6.2.2-1 Maximum power reduction (MPR) for power class 3

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	$\leq 3.5^1$	$\leq 1.2^1$	$\leq 0.2^1$
		$\leq 0.5^2$	$\leq 0.5^2$	0 ²
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
CP-OFDM	256 QAM	≤ 4.5		
	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

NOTE 1: Applicable for UE operating in TDD mode with Pi/2 BPSK modulation and UE indicates support for UE capability *powerBoosting-pi2BPSK* and if the IE *powerBoostPi2BPSK* is set to 1 and 40 % or less slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79. The reference power of 0 dB MPR is 26 dBm.

NOTE 2: Applicable for UE operating in FDD mode, or in TDD mode in bands other than n40, n41, n77, n78 and n79 with Pi/2 BPSK modulation and if the IE *powerBoostPi2BPSK* is set to 0 and if more than 40 % of slots in radio frame are used for UL transmission for bands n40, n41, n77, n78 and n79.

Table 6.2.2-2 Maximum power reduction (MPR) for power class 2

Modulation		MPR (dB)		
		Edge RB allocations	Outer RB allocations	Inner RB allocations
DFT-s-OFDM	Pi/2 BPSK	≤ 3.5	≤ 0.5	0
	QPSK	≤ 3.5	≤ 1	0
	16 QAM	≤ 3.5	≤ 2	≤ 1
	64 QAM	≤ 3.5	≤ 2.5	
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3.5	≤ 3	≤ 1.5
	16 QAM	≤ 3.5	≤ 3	≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

<EN-DC combination>

Band	LTE TX	NR TX
DC_5A_n7A	ANT 0/1	ANT 3/4/2
DC_12A_n66A	ANT 0/1	ANT 2/3/4
DC_5A_n66A	ANT 0/1	ANT 2/3/4
DC_5A_n2A	ANT 0/1	ANT 2/3/4
DC_12A_n2A	ANT 0/1	ANT 2/3/4
DC_7A_n5A	ANT 3/4/2	ANT 0/1
DC_66A_n5A	ANT 2/3/4	ANT 0/1
DC_2A_n5A	ANT 2/3/4	ANT 0/1
DC_66A_n7A	ANT 2/3/4	ANT 3/4/2
DC_66A_n41A	ANT 2/3/4	ANT 3/4/2
DC_7A_n66A	ANT 2/3/4	ANT 3/4/2
DC_2A_n7A	ANT 2/3/4	ANT 3/4/2
DC_2A_n41A	ANT 2/3/4	ANT 3/4/2
DC_4A_n7A	ANT 2/3/4	ANT 3/4/2
DC_5A_n77A	ANT 0/1	ANT 4/6/3/5
DC_12A_n77A	ANT 0/1	ANT 4/6/3/5
DC_41A_n77A	ANT 2/4/3	ANT 4/6/3/5
DC_48A_n5A	ANT 4/6/3/5	ANT 0/1

<WLAN Conducted Power>

General Note:

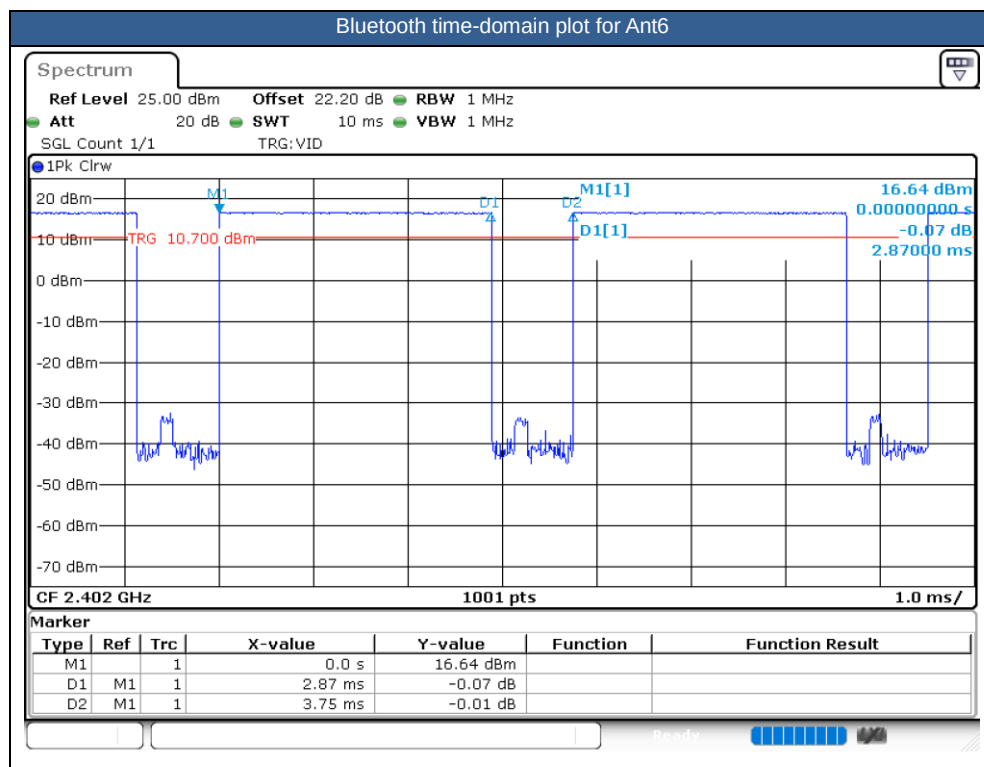
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
3. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
4. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.¹⁸ The initial test position procedure is described in the following:
 - a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
 - b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
 - c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. Per April 2019 TCB workshops, General principles of FCC KDB Publication 248227 D01 can be applied to determine the SAR Initial Test Configurations and test reduction for 802.11ax SAR testing.
7. In applying the test guidance, the IEEE 802.11 mode with the maximum output power (out of all modes) should be considered for testing
8. For modes with the same maximum output power, the guidance from section 5.3.2 a) of FCC KDB Publication 248227 D01 should be applied, with 802.11ax being considered as the highest 802.11 mode for the appropriate frequency bands
9. When SAR testing for 802.11ax is required
 - a. If the maximum output power is highest for OFDMA scenarios, choose the tone size with the maximum number of tones and the highest maximum output power
 - b. Otherwise, consider the fully allocated channel for SAR testing
 - c. When SAR testing is required on RU sizes less than the fully allocated channel, use the RU number closest to the middle of the channel, choosing the higher RU number when two RUs are equidistant to the middle of the channel
10. The 2.4GHz/5GHz WLAN can transmit in SISO/MIMO antenna mode.

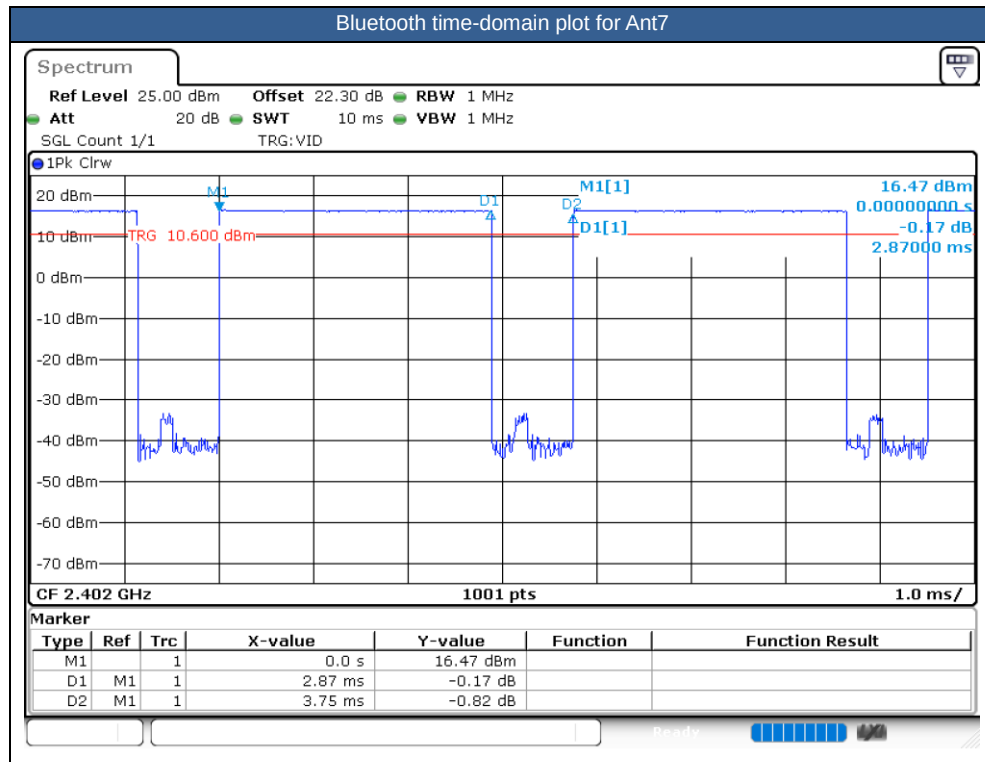
11. 802.11 ax supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.
12. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing.
13. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.53% for Ant6/7 as following figure, according to Oct. 2016 TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to 100% for Bluetooth reported SAR calculation







14. Antenna Location

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

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
 - a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
 - b. For SAR testing of WLAN/Bluetooth signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
 - c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
 - d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
 - e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
 - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
 - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
 - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8 W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements the receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. It uses the receiver to indicate whether the user is making a call in head scenario or not. The selection between head and body power levels is based on the receiver detection mechanism. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
6. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
 - a. For this device SAR for WWAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of GSM850/GSM1900, WCDMA Band II/IV/V, LTE Band 2/4/7/12/17/38/41/48/66, 5GNR n2/n5/n7 /n12/n38/n41/n48/n66 therefore product specific 10g SAR is necessary.
 - b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
 - c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test reduction and exclusion should be multiplied by 2.5.
7. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
8. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
9. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions

GSM Note:

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

WCDMA Note:

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

LTE Note:

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

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
 - b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
 - d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - e. Smaller bandwidth output power for each RB allocation configuration for this device will not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - f. For 5G FR1 n2/n5/n12/n66/n38/n41/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.

DSI status description:

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

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

Exposure Condition	DSI Number
Head SAR - Standalone	DSI 5
Head SAR - Simultaneous	DSI 6
Hotspot	DSI 9
Body worn/Extremity SAR - Standalone	DSI 7
Body worn/Extremity SAR - Simultaneous	DSI 8



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 5	23095	707.5	24.17	25.00	1.211	-	-	0.05	0.098	0.119
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 5	23095	707.5	24.17	25.00	1.211	-	-	-0.13	0.064	0.077
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 5	23095	707.5	24.17	25.00	1.211	-	-	-0.13	0.171	0.207
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 5	23095	707.5	24.17	25.00	1.211	-	-	-0.05	0.091	0.110
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 5	23095	707.5	23.15	24.00	1.216	-	-	0.13	0.097	0.118
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 5	23095	707.5	23.15	24.00	1.216	-	-	0.05	0.062	0.075
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 5	23095	707.5	23.15	24.00	1.216	-	-	0.06	0.168	0.204
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 5	23095	707.5	23.15	24.00	1.216	-	-	0.01	0.089	0.108
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.58	23.50	1.236	-	-	0.11	0.567	0.701
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 5	23095	707.5	22.58	23.50	1.236	-	-	-0.07	0.113	0.140
01	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.58	23.50	1.236	-	-	0.14	0.946	1.169
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 5	23095	707.5	22.58	23.50	1.236	-	-	-0.12	0.126	0.156
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 6	23095	707.5	21.60	22.50	1.230	-	-	-0.1	0.770	0.947
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.55	23.50	1.245	-	-	-0.01	0.554	0.689
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	DSI 5	23095	707.5	22.55	23.50	1.245	-	-	0.05	0.108	0.134
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.55	23.50	1.245	-	-	-0.1	0.931	1.159
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	DSI 5	23095	707.5	22.55	23.50	1.245	-	-	-0.02	0.120	0.149
	LTE Band 12	10M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.49	23.50	1.262	-	-	0.03	0.897	1.132
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	141500	707.5	23.55	25.00	1.396	-	-	-0.05	0.121	0.169
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	141500	707.5	23.55	25.00	1.396	-	-	0.1	0.074	0.103
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	141500	707.5	23.55	25.00	1.396	-	-	-0.06	0.202	0.282
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	141500	707.5	23.55	25.00	1.396	-	-	0.04	0.110	0.154
	FR1 n12	15M	QPSK	18	10	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	141500	707.5	23.51	25.00	1.409	-	-	0.11	0.116	0.163
	FR1 n12	15M	QPSK	18	10	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	141500	707.5	23.51	25.00	1.409	-	-	0.04	0.076	0.107
	FR1 n12	15M	QPSK	18	10	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	141500	707.5	23.51	25.00	1.409	-	-	-0.02	0.204	0.287
	FR1 n12	15M	QPSK	18	10	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	141500	707.5	23.51	25.00	1.409	-	-	-0.02	0.107	0.151
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	141500	707.5	21.08	22.50	1.387	-	-	-0.16	0.492	0.682
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	141500	707.5	21.08	22.50	1.387	-	-	0.15	0.106	0.147
02	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	141500	707.5	21.08	22.50	1.387	-	-	-0.08	0.762	1.057
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	141500	707.5	21.08	22.50	1.387	-	-	-0.15	0.130	0.180
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 6	141500	707.5	20.60	22.00	1.380	-	-	-0.15	0.680	0.939
	FR1 n12	15M	QPSK	18	10	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	141500	707.5	21.03	22.50	1.403	-	-	0.05	0.485	0.680
	FR1 n12	15M	QPSK	18	10	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	141500	707.5	21.03	22.50	1.403	-	-	0.08	0.104	0.146
	FR1 n12	15M	QPSK	18	10	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	141500	707.5	21.03	22.50	1.403	-	-	-0.12	0.735	1.031
	FR1 n12	15M	QPSK	18	10	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	141500	707.5	21.03	22.50	1.403	-	-	0	0.124	0.174
	FR1 n12	15M	QPSK	36	0	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	141500	707.5	21.00	22.50	1.413	-	-	-0.04	0.731	1.033
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	DSI 5	251	848.8	25.87	27.50	1.455	-	-	0.11	0.102	0.148
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	DSI 5	251	848.8	25.87	27.50	1.455	-	-	0.12	0.064	0.093
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	DSI 5	251	848.8	25.87	27.50	1.455	-	-	0.07	0.144	0.210
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	DSI 5	251	848.8	25.87	27.50	1.455	-	-	-0.15	0.097	0.141
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 1	DSI 5	251	848.8	23.88	25.50	1.452	-	-	-0.16	0.358	0.520
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 1	DSI 5	251	848.8	23.88	25.50	1.452	-	-	-0.08	0.068	0.099
03	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 5	251	848.8	23.88	25.50	1.452	-	-	0.09	0.812	1.179
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 1	DSI 5	251	848.8	23.88	25.50	1.452	-	-	-0.01	0.087	0.126
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 5	128	824.2	23.69	25.50	1.517	-	-	-0.05	0.723	1.097
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 5	189	836.4	23.60	25.50	1.549	-	-	-0.15	0.730	1.131
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 1	DSI 6	251	848.8	22.90	24.50	1.445	-	-	0.05	0.669	0.967
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	4182	836.4	24.05	25.00	1.245	-	-	-0.02	0.181	0.225
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 5	4182	836.4	24.05	25.00	1.245	-	-	0.1	0.119	0.148



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	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 5	4182	836.4	24.05	25.00	1.245	-	-	0.15	0.258	0.321
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 5	4182	836.4	24.05	25.00	1.245	-	-	-0.08	0.178	0.222
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 5	4182	836.4	21.70	22.50	1.202	-	-	0.05	0.436	0.524
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 5	4182	836.4	21.70	22.50	1.202	-	-	-0.01	0.078	0.094
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 5	4182	836.4	21.70	22.50	1.202	-	-	0.05	0.821	0.987
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 5	4182	836.4	21.70	22.50	1.202	-	-	-0.1	0.098	0.118
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 5	4132	826.4	21.63	22.50	1.222	-	-	-0.08	0.857	1.047
04	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 5	4233	846.6	21.66	22.50	1.213	-	-	0.02	0.888	1.077
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 6	4233	846.6	21.17	22.00	1.211	-	-	-0.05	0.793	0.960
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 5	26865	831.5	24.21	25.00	1.199	-	-	0.05	0.146	0.175
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 5	26865	831.5	24.21	25.00	1.199	-	-	-0.08	0.093	0.112
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 5	26865	831.5	24.21	25.00	1.199	-	-	-0.01	0.241	0.289
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 5	26865	831.5	24.21	25.00	1.199	-	-	-0.05	0.139	0.167
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 5	26865	831.5	23.12	24.00	1.225	-	-	-0.1	0.137	0.168
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 5	26865	831.5	23.12	24.00	1.225	-	-	-0.05	0.087	0.107
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 5	26865	831.5	23.12	24.00	1.225	-	-	0.16	0.223	0.273
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 5	26865	831.5	23.12	24.00	1.225	-	-	-0.06	0.131	0.160
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 5	26865	831.5	21.64	22.50	1.219	-	-	-0.13	0.438	0.534
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 5	26865	831.5	21.64	22.50	1.219	-	-	0.07	0.076	0.093
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 5	26865	831.5	21.64	22.50	1.219	-	-	0.04	0.906	1.104
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 5	26865	831.5	21.64	22.50	1.219	-	-	0.03	0.103	0.126
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	DSI 5	26865	831.5	21.58	22.50	1.236	-	-	-0.07	0.467	0.577
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	DSI 5	26865	831.5	21.58	22.50	1.236	-	-	-0.13	0.082	0.101
05	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 5	26865	831.5	21.58	22.50	1.236	-	-	0.04	0.947	1.170
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	DSI 5	26865	831.5	21.58	22.50	1.236	-	-	0.05	0.120	0.148
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 6	26865	831.5	20.54	21.50	1.247	-	-	0.04	0.730	0.911
	LTE Band 26	15M	QPSK	75	0	-	Left Cheek	0mm	Ant 1	DSI 5	26865	831.5	21.56	22.50	1.242	-	-	-0.09	0.911	1.131
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	167300	836.5	23.63	25.00	1.371	-	-	0.07	0.177	0.243
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	167300	836.5	23.63	25.00	1.371	-	-	-0.16	0.113	0.155
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	167300	836.5	23.63	25.00	1.371	-	-	0.07	0.274	0.376
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	167300	836.5	23.63	25.00	1.371	-	-	-0.1	0.165	0.226
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	167300	836.5	23.62	25.00	1.374	-	-	0.09	0.175	0.240
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	167300	836.5	23.62	25.00	1.374	-	-	0.06	0.112	0.154
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	167300	836.5	23.62	25.00	1.374	-	-	-0.08	0.270	0.371
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	167300	836.5	23.62	25.00	1.374	-	-	0.05	0.161	0.221
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	167300	836.5	22.20	23.50	1.349	-	-	0.13	0.400	0.540
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	167300	836.5	22.20	23.50	1.349	-	-	-0.01	0.079	0.107
06	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	167300	836.5	22.20	23.50	1.349	-	-	0.08	0.808	1.090
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	167300	836.5	22.20	23.50	1.349	-	-	-0.02	0.103	0.139
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 6	167300	836.5	21.76	23.00	1.330	-	-	0.01	0.685	0.911
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	167300	836.5	22.17	23.50	1.358	-	-	0	0.386	0.524
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	167300	836.5	22.17	23.50	1.358	-	-	0.02	0.076	0.103
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	167300	836.5	22.17	23.50	1.358	-	-	0.16	0.781	1.061
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	167300	836.5	22.17	23.50	1.358	-	-	-0.09	0.102	0.139
	FR1 n5	20M	QPSK	100	0	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	167300	836.5	22.15	23.50	1.365	-	-	0.04	0.715	0.976
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 5	1413	1732.6	24.27	25.00	1.183	-	-	0.07	0.178	0.211
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 5	1413	1732.6	24.27	25.00	1.183	-	-	-0.1	0.095	0.112
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 5	1413	1732.6	24.27	25.00	1.183	-	-	0.01	0.185	0.219
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 5	1413	1732.6	24.27	25.00	1.183	-	-	0.12	0.113	0.134
07	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	1413	1732.6	17.20	18.00	1.202	-	-	0.04	0.922	1.108
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 5	1413	1732.6	17.20	18.00	1.202	-	-	0.02	0.349	0.420
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 5	1413	1732.6	17.20	18.00	1.202	-	-	0.03	0.201	0.242
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 5	1413	1732.6	17.20	18.00	1.202	-	-	0.07	0.119	0.143
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	1312	1712.4	17.15	18.00	1.216	-	-	0.01	0.857	1.042
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	1513	1752.6	17.11	18.00	1.227	-	-	-0.05	0.897	1.101



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	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 6	1413	1732.6	16.26	17.00	1.186	-	-	-0.1	0.733	0.869
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	1413	1732.6	17.25	18.00	1.189	-	-	-0.07	0.859	1.021
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 5	1413	1732.6	17.25	18.00	1.189	-	-	-0.13	0.705	0.838
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	DSI 5	1413	1732.6	17.25	18.00	1.189	-	-	-0.1	0.381	0.453
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI 5	1413	1732.6	17.25	18.00	1.189	-	-	-0.01	0.464	0.551
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	1312	1712.4	17.20	18.00	1.202	-	-	-0.12	0.831	0.999
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	1513	1752.6	17.15	18.00	1.216	-	-	-0.13	0.906	1.102
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 5	1312	1712.4	17.20	18.00	1.202	-	-	-0.16	0.623	0.749
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 5	1513	1752.6	17.15	18.00	1.216	-	-	0.12	0.758	0.922
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 6	1513	1752.6	16.16	17.00	1.213	-	-	0.05	0.742	0.900
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 5	132322	1745	23.45	24.50	1.274	-	-	-0.05	0.127	0.162
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 5	132322	1745	23.45	24.50	1.274	-	-	0.1	0.065	0.083
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 5	132322	1745	23.45	24.50	1.274	-	-	0.06	0.146	0.186
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 5	132322	1745	23.45	24.50	1.274	-	-	-0.04	0.088	0.112
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 5	132322	1745	22.37	23.50	1.297	-	-	-0.04	0.103	0.134
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 5	132322	1745	22.37	23.50	1.297	-	-	-0.05	0.052	0.067
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 5	132322	1745	22.37	23.50	1.297	-	-	0.08	0.118	0.153
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 5	132322	1745	22.37	23.50	1.297	-	-	0.02	0.071	0.092
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	132322	1745	17.45	18.50	1.274	-	-	-0.12	0.802	1.021
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 5	132322	1745	17.45	18.50	1.274	-	-	0.12	0.330	0.420
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 5	132322	1745	17.45	18.50	1.274	-	-	0.15	0.238	0.303
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 5	132322	1745	17.45	18.50	1.274	-	-	0.13	0.110	0.140
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	132072	1720	17.38	18.50	1.294	-	-	-0.12	0.770	0.997
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	132572	1770	17.33	18.50	1.309	-	-	-0.12	0.816	1.068
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 6	132572	1770	16.92	18.00	1.282	-	-	0	0.740	0.949
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	132322	1745	17.40	18.50	1.288	-	-	0.07	0.784	1.010
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 5	132322	1745	17.40	18.50	1.288	-	-	-0.05	0.315	0.406
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 5	132322	1745	17.40	18.50	1.288	-	-	0.14	0.231	0.298
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 5	132322	1745	17.40	18.50	1.288	-	-	0.11	0.106	0.137
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	132072	1720	17.35	18.50	1.303	-	-	-0.1	0.747	0.973
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	132572	1770	17.30	18.50	1.318	-	-	0.16	0.801	1.056
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	DSI 5	132322	1745	17.39	18.50	1.291	-	-	-0.01	0.784	1.012
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	132322	1745	18.10	19.00	1.230	-	-	0.02	0.795	0.978
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	132322	1745	18.10	19.00	1.230	-	-	-0.15	0.699	0.860
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 5	132322	1745	18.10	19.00	1.230	-	-	0.12	0.436	0.536
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 5	132322	1745	18.10	19.00	1.230	-	-	-0.14	0.490	0.603
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	132072	1720	17.88	19.00	1.294	-	-	0.12	0.716	0.927
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	132572	1770	18.02	19.00	1.253	-	-	-0.12	0.868	1.088
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	132072	1720	17.88	19.00	1.294	-	-	-0.05	0.638	0.826
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	132572	1770	18.02	19.00	1.253	-	-	0.03	0.781	0.979
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	132322	1745	18.08	19.00	1.236	-	-	0.03	0.828	1.023
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	132322	1745	18.08	19.00	1.236	-	-	-0.06	0.732	0.905
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 5	132322	1745	18.08	19.00	1.236	-	-	0.04	0.444	0.549
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 5	132322	1745	18.08	19.00	1.236	-	-	0.1	0.509	0.629
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	132072	1720	17.83	19.00	1.309	-	-	-0.13	0.722	0.945
08	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	132572	1770	17.99	19.00	1.262	-	-	0.02	0.884	1.115
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	132072	1720	17.83	19.00	1.309	-	-	-0.1	0.646	0.846
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	132572	1770	17.99	19.00	1.262	-	-	0.09	0.805	1.016
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 6	132572	1770	17.08	18.00	1.236	-	-	-0.11	0.740	0.915
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 5	132322	1745	17.95	19.00	1.274	-	-	-0.14	0.800	1.019
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 5	132322	1745	17.95	19.00	1.274	-	-	-0.03	0.719	0.916
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	349000	1745	23.52	24.50	1.253	-	-	0.08	0.149	0.187
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	349000	1745	23.52	24.50	1.253	-	-	-0.06	0.083	0.104
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	349000	1745	23.52	24.50	1.253	-	-	-0.12	0.151	0.189
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	349000	1745	23.52	24.50	1.253	-	-	-0.1	0.106	0.133
	FR1 n66	30M	QPSK	36	21	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	349000	1745	23.40	24.50	1.288	-	-	0.02	0.142	0.183



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	FR1 n66	30M	QPSK	36	21	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	349000	1745	23.40	24.50	1.288	-	-	0	0.081	0.104
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	349000	1745	23.40	24.50	1.288	-	-	-0.07	0.150	0.193
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	349000	1745	23.40	24.50	1.288	-	-	-0.05	0.104	0.134
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	349000	1745	17.52	18.50	1.253	-	-	-0.07	0.867	1.086
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI 5	349000	1745	17.52	18.50	1.253	-	-	0.05	0.328	0.411
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI 5	349000	1745	17.52	18.50	1.253	-	-	0	0.258	0.323
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI 5	349000	1745	17.52	18.50	1.253	-	-	-0.06	0.115	0.144
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 6	349000	1745	17.00	18.00	1.259	-	-	0.13	0.755	0.950
	FR1 n66	30M	QPSK	36	21	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	349000	1745	17.50	18.50	1.259	-	-	0.07	0.853	1.074
	FR1 n66	30M	QPSK	36	21	DFT-15	Right Tilted	0mm	Ant 3	DSI 5	349000	1745	17.50	18.50	1.259	-	-	-0.13	0.305	0.384
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Cheek	0mm	Ant 3	DSI 5	349000	1745	17.50	18.50	1.259	-	-	-0.02	0.242	0.305
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Tilted	0mm	Ant 3	DSI 5	349000	1745	17.50	18.50	1.259	-	-	-0.12	0.108	0.136
	FR1 n66	30M	QPSK	75	0	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	349000	1745	17.48	18.50	1.265	-	-	-0.13	0.799	1.011
09	FR1 n66	30M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	349000	1745	17.52	18.50	1.253	-	-	-0.04	0.877	1.099
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	349000	1745	17.52	18.50	1.253	-	-	-0.09	0.745	0.934
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	DSI 5	349000	1745	17.52	18.50	1.253	-	-	-0.04	0.383	0.480
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	DSI 5	349000	1745	17.52	18.50	1.253	-	-	-0.01	0.445	0.558
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 6	349000	1745	17.00	18.00	1.259	-	-	0.07	0.766	0.964
	FR1 n66	30M	QPSK	36	21	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	349000	1745	17.48	18.50	1.265	-	-	0.06	0.845	1.069
	FR1 n66	30M	QPSK	36	21	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	349000	1745	17.48	18.50	1.265	-	-	-0.09	0.726	0.918
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Cheek	0mm	Ant 4	DSI 5	349000	1745	17.48	18.50	1.265	-	-	0.13	0.364	0.460
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Tilted	0mm	Ant 4	DSI 5	349000	1745	17.48	18.50	1.265	-	-	-0.07	0.433	0.548
	FR1 n66	30M	QPSK	75	0	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	349000	1745	17.45	18.50	1.274	-	-	0.13	0.811	1.033
	FR1 n66	30M	QPSK	75	0	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	349000	1745	17.45	18.50	1.274	-	-	0.08	0.709	0.903
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 2	DSI 5	810	1909.8	23.32	24.50	1.312	-	-	-0.1	0.041	0.054
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 2	DSI 5	810	1909.8	23.32	24.50	1.312	-	-	-0.07	0.019	0.025
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 2	DSI 5	810	1909.8	23.32	24.50	1.312	-	-	-0.08	0.052	0.068
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 2	DSI 5	810	1909.8	23.32	24.50	1.312	-	-	0.03	0.029	0.038
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 3	DSI 5	810	1909.8	19.30	21.00	1.479	-	-	0.14	0.658	0.973
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 3	DSI 5	810	1909.8	19.30	21.00	1.479	-	-	-0.04	0.165	0.244
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 3	DSI 5	810	1909.8	19.30	21.00	1.479	-	-	-0.05	0.112	0.166
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 3	DSI 5	810	1909.8	19.30	21.00	1.479	-	-	0.11	0.057	0.084
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 3	DSI 5	512	1850.2	19.15	21.00	1.531	-	-	-0.14	0.708	1.084
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 3	DSI 5	661	1880	19.00	21.00	1.585	-	-	-0.07	0.688	1.090
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 3	DSI 6	512	1850.2	18.72	20.50	1.507	-	-	0.07	0.629	0.948
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI 5	810	1909.8	20.32	22.00	1.472	-	-	0.01	0.626	0.922
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 4	DSI 5	810	1909.8	20.32	22.00	1.472	-	-	0.06	0.556	0.819
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 4	DSI 5	810	1909.8	20.32	22.00	1.472	-	-	0.16	0.298	0.439
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 4	DSI 5	810	1909.8	20.32	22.00	1.472	-	-	0.12	0.380	0.559
10	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI 5	512	1850.2	20.22	22.00	1.507	-	-	-0.1	0.726	1.094
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI 5	661	1880	20.15	22.00	1.531	-	-	0.09	0.661	1.012
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 4	DSI 5	512	1850.2	20.22	22.00	1.507	-	-	0.06	0.618	0.931
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 4	DSI 5	661	1880	20.15	22.00	1.531	-	-	0.07	0.576	0.882
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 4	DSI 6	512	1850.2	19.75	21.50	1.496	-	-	-0.03	0.638	0.955
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 2	DSI 5	9400	1880	24.42	25.00	1.143	-	-	0.02	0.105	0.120
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 2	DSI 5	9400	1880	24.42	25.00	1.143	-	-	-0.15	0.073	0.083
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 2	DSI 5	9400	1880	24.42	25.00	1.143	-	-	-0.15	0.113	0.129
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 2	DSI 5	9400	1880	24.42	25.00	1.143	-	-	-0.13	0.087	0.099
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	9400	1880	16.55	17.50	1.245	-	-	0.05	0.661	0.823
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 3	DSI 5	9400	1880	16.55	17.50	1.245	-	-	0	0.206	0.256
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 3	DSI 5	9400	1880	16.55	17.50	1.245	-	-	0.14	0.130	0.162
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 3	DSI 5	9400	1880	16.55	17.50	1.245	-	-	-0.08	0.075	0.093
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	9262	1852.4	16.45	17.50	1.274	-	-	0.12	0.862	1.098
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	9538	1907.6	16.48	17.50	1.265	-	-	0.15	0.783	0.990
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 6	9262	1852.4	15.52	16.50	1.253	-	-	0.11	0.700	0.877



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	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	9400	1880	16.49	17.50	1.262	-	-	0.1	0.794	1.002
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 5	9400	1880	16.49	17.50	1.262	-	-	-0.13	0.649	0.819
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 4	DSI 5	9400	1880	16.49	17.50	1.262	-	-	0.12	0.354	0.447
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 4	DSI 5	9400	1880	16.49	17.50	1.262	-	-	-0.05	0.449	0.567
11	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	9262	1852.4	16.40	17.50	1.288	-	-	0.08	0.909	1.171
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	9538	1907.6	16.42	17.50	1.282	-	-	-0.15	0.702	0.900
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 5	9262	1852.4	16.40	17.50	1.288	-	-	-0.12	0.799	1.029
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 4	DSI 5	9538	1907.6	16.42	17.50	1.282	-	-	-0.15	0.562	0.721
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 6	9262	1852.4	15.34	16.50	1.306	-	-	0.05	0.700	0.914
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 5	18900	1880	23.55	24.50	1.245	-	-	-0.15	0.080	0.100
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 5	18900	1880	23.55	24.50	1.245	-	-	-0.11	0.052	0.065
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 5	18900	1880	23.55	24.50	1.245	-	-	-0.12	0.088	0.110
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 5	18900	1880	23.55	24.50	1.245	-	-	0.01	0.059	0.073
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 5	18900	1880	22.63	23.50	1.222	-	-	0.13	0.067	0.082
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 5	18900	1880	22.63	23.50	1.222	-	-	-0.13	0.042	0.051
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 5	18900	1880	22.63	23.50	1.222	-	-	0.02	0.073	0.089
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 5	18900	1880	22.63	23.50	1.222	-	-	-0.04	0.049	0.060
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	18900	1880	18.88	20.00	1.294	-	-	-0.1	0.685	0.887
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 5	18900	1880	18.88	20.00	1.294	-	-	0.12	0.242	0.313
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 5	18900	1880	18.88	20.00	1.294	-	-	0.12	0.142	0.184
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 5	18900	1880	18.88	20.00	1.294	-	-	0.15	0.086	0.111
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	18700	1860	18.76	20.00	1.330	-	-	0.1	0.733	0.975
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	19100	1900	18.70	20.00	1.349	-	-	-0.03	0.790	1.066
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 6	19100	1900	18.35	19.50	1.303	-	-	0.06	0.722	0.941
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	18900	1880	18.87	20.00	1.297	-	-	0.16	0.665	0.863
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 5	18900	1880	18.87	20.00	1.297	-	-	-0.06	0.238	0.309
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 5	18900	1880	18.87	20.00	1.297	-	-	0.11	0.138	0.179
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 5	18900	1880	18.87	20.00	1.297	-	-	-0.09	0.081	0.105
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	18700	1860	18.75	20.00	1.334	-	-	0.09	0.715	0.953
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	19100	1900	18.66	20.00	1.361	-	-	-0.09	0.778	1.059
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	DSI 5	18900	1880	18.82	20.00	1.312	-	-	-0.15	0.672	0.882
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	18900	1880	18.28	19.50	1.324	-	-	0.06	0.747	0.989
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	18900	1880	18.28	19.50	1.324	-	-	-0.06	0.720	0.954
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 5	18900	1880	18.28	19.50	1.324	-	-	-0.15	0.387	0.513
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 5	18900	1880	18.28	19.50	1.324	-	-	0	0.499	0.661
12	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	18700	1860	18.20	19.50	1.349	-	-	-0.02	0.861	1.161
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	19100	1900	18.22	19.50	1.343	-	-	0.09	0.660	0.886
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	18700	1860	18.20	19.50	1.349	-	-	0.07	0.829	1.118
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	19100	1900	18.22	19.50	1.343	-	-	-0.02	0.635	0.853
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 6	18700	1860	17.23	18.50	1.340	-	-	0.03	0.687	0.920
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	18900	1880	18.22	19.50	1.343	-	-	-0.09	0.725	0.974
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	18900	1880	18.22	19.50	1.343	-	-	-0.11	0.689	0.925
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 5	18900	1880	18.22	19.50	1.343	-	-	0.05	0.386	0.518
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 5	18900	1880	18.22	19.50	1.343	-	-	-0.1	0.481	0.646
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	18700	1860	18.15	19.50	1.365	-	-	-0.1	0.829	1.131
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	19100	1900	18.17	19.50	1.358	-	-	-0.14	0.650	0.883
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	18700	1860	18.15	19.50	1.365	-	-	0.06	0.816	1.113
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	19100	1900	18.17	19.50	1.358	-	-	0.13	0.631	0.857
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 5	18900	1880	18.17	19.50	1.358	-	-	0.06	0.727	0.987
	LTE Band 2	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 5	18900	1880	18.17	19.50	1.358	-	-	-0.1	0.675	0.917
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	376000	1880	23.40	24.50	1.288	-	-	0.1	0.098	0.126
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	376000	1880	23.40	24.50	1.288	-	-	0.12	0.066	0.085
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	376000	1880	23.40	24.50	1.288	-	-	0.08	0.105	0.135
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	376000	1880	23.40	24.50	1.288	-	-	-0.05	0.075	0.097
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	376000	1880	23.30	24.50	1.318	-	-	0.06	0.091	0.120
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	376000	1880	23.30	24.50	1.318	-	-	0.07	0.065	0.086



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	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	376000	1880	23.30	24.50	1.318	-	-	-0.06	0.101	0.133
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	376000	1880	23.30	24.50	1.318	-	-	0.03	0.073	0.096
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	376000	1880	18.08	19.00	1.236	-	-	0.16	0.777	0.960
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI 5	376000	1880	18.08	19.00	1.236	-	-	0.1	0.295	0.365
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI 5	376000	1880	18.08	19.00	1.236	-	-	-0.09	0.191	0.236
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI 5	376000	1880	18.08	19.00	1.236	-	-	0.11	0.106	0.131
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	372000	1860	18.02	19.00	1.253	-	-	-0.01	0.779	0.976
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	380000	1900	18.05	19.00	1.245	-	-	-0.1	0.807	1.004
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 6	380000	1900	17.52	18.50	1.253	-	-	-0.12	0.733	0.919
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	376000	1880	18.06	19.00	1.242	-	-	-0.02	0.758	0.941
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 3	DSI 5	376000	1880	18.06	19.00	1.242	-	-	0.1	0.282	0.350
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 3	DSI 5	376000	1880	18.06	19.00	1.242	-	-	0.1	0.179	0.222
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 3	DSI 5	376000	1880	18.06	19.00	1.242	-	-	0.13	0.098	0.122
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	372000	1860	18.00	19.00	1.259	-	-	0	0.747	0.940
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	380000	1900	17.99	19.00	1.262	-	-	0.03	0.755	0.953
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	376000	1880	18.05	19.00	1.245	-	-	-0.15	0.722	0.899
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	376000	1880	16.74	18.00	1.337	-	-	-0.13	0.726	0.970
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	376000	1880	16.74	18.00	1.337	-	-	0.08	0.680	0.909
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	DSI 5	376000	1880	16.74	18.00	1.337	-	-	-0.14	0.359	0.480
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	DSI 5	376000	1880	16.74	18.00	1.337	-	-	0.11	0.438	0.585
13	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	372000	1860	16.69	18.00	1.352	-	-	0.08	0.818	1.106
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	380000	1900	16.65	18.00	1.365	-	-	-0.07	0.628	0.857
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	372000	1860	16.69	18.00	1.352	-	-	0.08	0.729	0.986
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	380000	1900	16.65	18.00	1.365	-	-	0.02	0.560	0.764
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 6	372000	1860	15.73	17.00	1.340	-	-	-0.06	0.659	0.883
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	376000	1880	16.73	18.00	1.340	-	-	-0.12	0.676	0.906
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	376000	1880	16.73	18.00	1.340	-	-	0.07	0.638	0.855
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 4	DSI 5	376000	1880	16.73	18.00	1.340	-	-	-0.04	0.354	0.474
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 4	DSI 5	376000	1880	16.73	18.00	1.340	-	-	0.15	0.412	0.552
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	372000	1860	16.65	18.00	1.365	-	-	-0.05	0.745	1.017
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	380000	1900	16.61	18.00	1.377	-	-	0.15	0.583	0.803
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	372000	1860	16.65	18.00	1.365	-	-	-0.15	0.664	0.906
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	380000	1900	16.61	18.00	1.377	-	-	-0.09	0.520	0.716
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	376000	1880	16.67	18.00	1.358	-	-	-0.16	0.671	0.911
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	376000	1880	16.67	18.00	1.358	-	-	-0.04	0.623	0.846
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 5	21100	2535	23.78	24.50	1.180	-	-	0.16	0.278	0.328
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 5	21100	2535	23.78	24.50	1.180	-	-	-0.14	0.113	0.133
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 5	21100	2535	23.78	24.50	1.180	-	-	0.08	0.170	0.201
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 5	21100	2535	23.78	24.50	1.180	-	-	0.13	0.078	0.092
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 5	21100	2535	22.85	23.50	1.161	-	-	-0.13	0.232	0.269
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 5	21100	2535	22.85	23.50	1.161	-	-	0.06	0.090	0.105
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 5	21100	2535	22.85	23.50	1.161	-	-	0.14	0.143	0.166
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 5	21100	2535	22.85	23.50	1.161	-	-	-0.1	0.060	0.070
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	21100	2535	15.83	16.50	1.167	-	-	0.07	0.890	1.038
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 5	21100	2535	15.83	16.50	1.167	-	-	0.14	0.337	0.393
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 5	21100	2535	15.83	16.50	1.167	-	-	0.07	0.173	0.202
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 5	21100	2535	15.83	16.50	1.167	-	-	0.05	0.116	0.135
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	20850	2510	15.72	16.50	1.197	-	-	0.09	0.834	0.998
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	21350	2560	15.75	16.50	1.189	-	-	-0.09	0.805	0.957
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 6	21100	2535	14.85	15.50	1.161	-	-	-0.03	0.721	0.837
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	21100	2535	15.80	16.50	1.175	-	-	0.16	0.856	1.006
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 5	21100	2535	15.80	16.50	1.175	-	-	0	0.328	0.385
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 5	21100	2535	15.80	16.50	1.175	-	-	0	0.169	0.199
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 5	21100	2535	15.80	16.50	1.175	-	-	-0.16	0.112	0.132
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	20850	2510	15.71	16.50	1.199	-	-	0.02	0.809	0.970



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	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	21350	2560	15.72	16.50	1.197	-	-	0.12	0.788	0.943
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	DSI 5	21100	2535	15.78	16.50	1.180	-	-	-0.11	0.833	0.983
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	21100	2535	17.25	17.50	1.059	-	-	0	0.835	0.884
14	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	21100	2535	17.25	17.50	1.059	-	-	-0.02	1.040	1.102
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 5	21100	2535	17.25	17.50	1.059	-	-	0.16	0.420	0.445
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 5	21100	2535	17.25	17.50	1.059	-	-	-0.08	0.494	0.523
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	20850	2510	17.20	17.50	1.072	-	-	-0.1	0.714	0.765
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	21350	2560	17.22	17.50	1.067	-	-	-0.14	0.779	0.831
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	20850	2510	17.20	17.50	1.072	-	-	-0.02	0.826	0.885
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	21350	2560	17.22	17.50	1.067	-	-	0.14	0.958	1.022
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 6	21100	2535	16.30	16.50	1.047	-	-	0.11	0.835	0.874
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	21100	2535	17.22	17.50	1.067	-	-	0.030	0.801	0.854
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	21100	2535	17.22	17.50	1.067	-	-	0.110	0.956	1.020
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 5	21100	2535	17.22	17.50	1.067	-	-	-0.020	0.409	0.436
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 5	21100	2535	17.22	17.50	1.067	-	-	-0.040	0.480	0.512
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	20850	2510	17.19	17.50	1.074	-	-	-0.080	0.700	0.752
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	21350	2560	17.18	17.50	1.076	-	-	0.100	0.768	0.827
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	20850	2510	17.19	17.50	1.074	-	-	-0.040	0.806	0.866
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	21350	2560	17.18	17.50	1.076	-	-	0.040	0.931	1.002
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 5	21100	2535	17.18	17.50	1.076	-	-	-0.08	0.790	0.850
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 5	21100	2535	17.18	17.50	1.076	-	-	0.12	0.922	0.993
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 5	39750	2506	23.80	24.50	1.175	62.9	1.006	0.14	0.201	0.238
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 2	DSI 5	39750+39948	2506+2525.8	23.45	24.50	1.274	62.9	1.006	0.09	0.161	0.206
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 2	DSI 5	39750	2506	23.80	24.50	1.175	62.9	1.006	-0.06	0.052	0.061
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 2	DSI 5	39750	2506	23.80	24.50	1.175	62.9	1.006	0.08	0.106	0.125
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 2	DSI 5	39750	2506	23.80	24.50	1.175	62.9	1.006	0.03	0.042	0.050
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 2	DSI 5	39750	2506	22.92	23.50	1.143	62.9	1.006	-0.01	0.164	0.189
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 2	DSI 5	39750	2506	22.92	23.50	1.143	62.9	1.006	0.08	0.043	0.049
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 2	DSI 5	39750	2506	22.92	23.50	1.143	62.9	1.006	0.11	0.085	0.098
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 2	DSI 5	39750	2506	22.92	23.50	1.143	62.9	1.006	0.07	0.031	0.036
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	39750	2506	18.05	18.50	1.109	62.9	1.006	0.04	0.892	0.995
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 3	DSI 5	39750	2506	18.05	18.50	1.109	62.9	1.006	0.15	0.468	0.522
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 3	DSI 5	39750	2506	18.05	18.50	1.109	62.9	1.006	0.16	0.213	0.238
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 3	DSI 5	39750	2506	18.05	18.50	1.109	62.9	1.006	-0.06	0.161	0.180
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	40185	2549.5	17.98	18.50	1.127	62.9	1.006	-0.03	0.743	0.843
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	40620	2593	17.95	18.50	1.135	62.9	1.006	0.05	0.814	0.929
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	41055	2636.5	18.02	18.50	1.117	62.9	1.006	0.09	0.920	1.034
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	41055+40857	2636.5+2616.7	17.90	18.50	1.148	62.9	1.006	0.09	0.837	0.967
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 5	41490	2680	17.83	18.50	1.167	62.9	1.006	0.01	0.722	0.847
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 6	41055	2636.5	17.10	17.50	1.096	62.9	1.006	0.08	0.761	0.839
	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 3	DSI 6	41055+40857	2636.5+2616.7	16.91	17.50	1.146	62.9	1.006	0.01	0.709	0.817
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	39750	2506	18.02	18.50	1.117	62.9	1.006	0.03	0.866	0.973
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 3	DSI 5	39750	2506	18.02	18.50	1.117	62.9	1.006	0.14	0.454	0.510
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 3	DSI 5	39750	2506	18.02	18.50	1.117	62.9	1.006	0.1	0.207	0.233
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 3	DSI 5	39750	2506	18.02	18.50	1.117	62.9	1.006	-0.03	0.156	0.175
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	40185	2549.5	17.95	18.50	1.135	62.9	1.006	0.15	0.721	0.823
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	40620	2593	17.90	18.50	1.148	62.9	1.006	0.12	0.790	0.912
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	41055	2636.5	18.00	18.50	1.122	62.9	1.006	-0.09	0.893	1.008
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 3	DSI 5	41490	2680	17.80	18.50	1.175	62.9	1.006	-0.11	0.701	0.829
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 3	DSI 5	39750	2506	18.01	18.50	1.119	62.9	1.006	0.04	0.841	0.947
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	39750	2506	18.80	19.00	1.047	62.9	1.006	0.04	0.785	0.827
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	39750	2506	18.80	19.00	1.047	62.9	1.006	-0.04	0.841	0.886
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 5	39750	2506	18.80	19.00	1.047	62.9	1.006	-0.11	0.362	0.381
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 5	39750	2506	18.80	19.00	1.047	62.9	1.006	-0.12	0.404	0.426
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	40185	2549.5	18.75	19.00	1.059	62.9	1.006	-0.08	0.711	0.758



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	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	40620	2593	18.60	19.00	1.096	62.9	1.006	-0.06	0.792	0.874
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	41055	2636.5	18.66	19.00	1.081	62.9	1.006	-0.02	0.846	0.920
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 5	41490	2680	18.63	19.00	1.089	62.9	1.006	0.08	0.768	0.841
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	40185	2549.5	18.75	19.00	1.059	62.9	1.006	0.12	0.785	0.837
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	40620	2593	18.60	19.00	1.096	62.9	1.006	-0.14	0.882	0.973
15	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	41055	2636.5	18.66	19.00	1.081	62.9	1.006	-0.06	0.953	1.037
	LTE Band 41C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	41055+40857	2636.5+2616.7	18.61	19.00	1.094	62.9	1.006	0.06	0.897	0.987
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	41490	2680	18.63	19.00	1.089	62.9	1.006	0.03	0.867	0.950
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 6	41055	2636.5	18.19	18.50	1.074	62.9	1.006	-0.03	0.840	0.908
	LTE Band 41C	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 6	41055+40857	2636.5+2616.7	18.15	18.50	1.084	62.9	1.006	0.09	0.812	0.885
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	39750	2506	18.77	19.00	1.054	62.9	1.006	-0.11	0.765	0.811
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	39750	2506	18.77	19.00	1.054	62.9	1.006	-0.11	0.820	0.870
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 5	39750	2506	18.77	19.00	1.054	62.9	1.006	-0.07	0.353	0.374
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 5	39750	2506	18.77	19.00	1.054	62.9	1.006	0.07	0.394	0.418
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	40185	2549.5	18.73	19.00	1.064	62.9	1.006	0.14	0.693	0.742
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	40620	2593	18.56	19.00	1.107	62.9	1.006	-0.09	0.772	0.859
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	41055	2636.5	18.65	19.00	1.084	62.9	1.006	0.02	0.825	0.900
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 5	41490	2680	18.58	19.00	1.102	62.9	1.006	0.08	0.749	0.830
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	40185	2549.5	18.73	19.00	1.064	62.9	1.006	-0.08	0.765	0.819
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	40620	2593	18.56	19.00	1.107	62.9	1.006	-0.15	0.860	0.957
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	41055	2636.5	18.65	19.00	1.084	62.9	1.006	0.1	0.929	1.013
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 5	41490	2680	18.58	19.00	1.102	62.9	1.006	-0.14	0.845	0.936
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 5	39750	2506	18.65	19.00	1.084	62.9	1.006	0.09	0.756	0.824
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 5	39750	2506	18.65	19.00	1.084	62.9	1.006	-0.01	0.809	0.882
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	507000	2535	23.76	24.50	1.186	-	-	-0.03	0.364	0.432
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	507000	2535	23.76	24.50	1.186	-	-	-0.15	0.143	0.170
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	507000	2535	23.76	24.50	1.186	-	-	-0.08	0.232	0.275
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	507000	2535	23.76	24.50	1.186	-	-	-0.04	0.091	0.108
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 2	DSI 5	507000	2535	23.62	24.50	1.225	-	-	0.09	0.357	0.437
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 2	DSI 5	507000	2535	23.62	24.50	1.225	-	-	0.12	0.137	0.168
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 2	DSI 5	507000	2535	23.62	24.50	1.225	-	-	-0.15	0.227	0.278
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 2	DSI 5	507000	2535	23.62	24.50	1.225	-	-	-0.15	0.090	0.110
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	507000	2535	15.42	16.00	1.143	-	-	-0.13	0.765	0.874
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 3	DSI 5	507000	2535	15.42	16.00	1.143	-	-	0.08	0.342	0.391
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 3	DSI 5	507000	2535	15.42	16.00	1.143	-	-	0.12	0.194	0.222
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 3	DSI 5	507000	2535	15.42	16.00	1.143	-	-	0.11	0.123	0.141
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	502000	2510	15.33	16.00	1.167	-	-	-0.02	0.822	0.959
16	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	512000	2560	15.35	16.00	1.161	-	-	0.02	0.871	1.012
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 3	DSI 6	512000	2560	14.88	15.50	1.153	-	-	-0.02	0.780	0.900
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	507000	2535	15.37	16.00	1.156	-	-	0.06	0.733	0.847
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 3	DSI 5	507000	2535	15.37	16.00	1.156	-	-	-0.11	0.321	0.371
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 3	DSI 5	507000	2535	15.37	16.00	1.156	-	-	0.13	0.190	0.220
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 3	DSI 5	507000	2535	15.37	16.00	1.156	-	-	-0.06	0.117	0.135
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	502000	2510	15.21	16.00	1.199	-	-	-0.08	0.771	0.925
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	512000	2560	15.32	16.00	1.169	-	-	0.03	0.848	0.992
	FR1 n7	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 3	DSI 5	507000	2535	15.34	16.00	1.164	-	-	0.05	0.701	0.816
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	507000	2535	16.45	17.00	1.135	-	-	-0.14	0.767	0.871
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	507000	2535	16.45	17.00	1.135	-	-	0.13	0.876	0.994
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 4	DSI 5	507000	2535	16.45	17.00	1.135	-	-	-0.11	0.416	0.472
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 4	DSI 5	507000	2535	16.45	17.00	1.135	-	-	0.07	0.456	0.518
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	502000	2510	16.38	17.00	1.153	-	-	0.08	0.628	0.724
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	512000	2560	16.40	17.00	1.148	-	-	-0.12	0.746	0.857
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	502000	2510	16.38	17.00	1.153	-	-	0.02	0.705	0.813
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	512000	2560	16.40	17.00	1.148	-	-	-0.1	0.837	0.961
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 4	DSI 6	507000	2535	15.96	16.50	1.132	-	-	0.12	0.788	0.892



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	FR1 n7	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	507000	2535	16.40	17.00	1.148	-	-	0.05	0.738	0.847
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	507000	2535	16.40	17.00	1.148	-	-	0.12	0.845	0.970
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 4	DSI 5	507000	2535	16.40	17.00	1.148	-	-	0.07	0.409	0.470
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 4	DSI 5	507000	2535	16.40	17.00	1.148	-	-	0.16	0.452	0.519
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	502000	2510	16.31	17.00	1.172	-	-	0.03	0.612	0.717
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	512000	2560	16.37	17.00	1.156	-	-	-0.09	0.727	0.840
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	502000	2510	16.31	17.00	1.172	-	-	0.1	0.687	0.805
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	512000	2560	16.37	17.00	1.156	-	-	-0.11	0.820	0.948
	FR1 n7	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 4	DSI 5	507000	2535	16.38	17.00	1.153	-	-	-0.12	0.726	0.837
	FR1 n7	20M	QPSK	100	0	DFT-15	Right Tilted	0mm	Ant 4	DSI 5	507000	2535	16.38	17.00	1.153	-	-	0.16	0.838	0.967
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	DSI 5	518598	2592.99	24.53	25.50	1.250	-	-	-0.1	0.483	0.604
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 2	DSI 5	518598	2592.99	24.53	25.50	1.250	-	-	-0.04	0.164	0.205
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 2	DSI 5	518598	2592.99	24.53	25.50	1.250	-	-	0.01	0.322	0.403
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 2	DSI 5	518598	2592.99	24.53	25.50	1.250	-	-	0.1	0.122	0.153
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	DSI 5	518598	2592.99	24.38	25.50	1.294	-	-	-0.15	0.465	0.602
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	DSI 5	518598	2592.99	24.38	25.50	1.294	-	-	-0.07	0.159	0.206
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	DSI 5	518598	2592.99	24.38	25.50	1.294	-	-	0.16	0.310	0.401
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	DSI 5	518598	2592.99	24.38	25.50	1.294	-	-	0	0.115	0.149
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 2	DSI 5	518598	2592.99	23.32	24.50	1.312	-	-	-0.15	0.460	0.604
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	518598	2592.99	15.76	17.00	1.330	-	-	-0.16	0.867	1.154
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	518598	2592.99	15.76	17.00	1.330	-	-	-0.07	0.402	0.535
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	518598	2592.99	15.76	17.00	1.330	-	-	-0.11	0.215	0.286
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	518598	2592.99	15.76	17.00	1.330	-	-	-0.13	0.148	0.197
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 6	518598	2592.99	14.75	16.00	1.334	-	-	0.04	0.696	0.928
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	518598	2592.99	15.71	17.00	1.346	-	-	-0.14	0.822	1.106
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	518598	2592.99	15.71	17.00	1.346	-	-	-0.09	0.390	0.525
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	518598	2592.99	15.71	17.00	1.346	-	-	-0.12	0.208	0.280
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	518598	2592.99	15.71	17.00	1.346	-	-	-0.04	0.140	0.188
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	518598	2592.99	15.69	17.00	1.352	-	-	0.02	0.819	1.107
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	518598	2592.99	16.42	17.50	1.282	-	-	0.12	0.810	1.039
17	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	518598	2592.99	16.42	17.50	1.282	-	-	-0.05	0.906	1.162
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	518598	2592.99	16.42	17.50	1.282	-	-	-0.12	0.451	0.578
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	518598	2592.99	16.42	17.50	1.282	-	-	0.08	0.525	0.673
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	518598	2592.99	15.40	16.50	1.288	-	-	0.05	0.712	0.917
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	518598	2592.99	16.40	17.50	1.288	-	-	0.07	0.792	1.020
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	518598	2592.99	16.40	17.50	1.288	-	-	0.11	0.878	1.131
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	518598	2592.99	16.40	17.50	1.288	-	-	-0.03	0.436	0.562
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	518598	2592.99	16.40	17.50	1.288	-	-	0.11	0.508	0.654
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	518598	2592.99	16.35	17.50	1.303	-	-	-0.16	0.772	1.006
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	518598	2592.99	16.35	17.50	1.303	-	-	0.16	0.856	1.116
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	518598	2592.99	16.35	17.50	1.303	-	-	0.16	0.495	0.645
3000MHz-4000MHz																				
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	55830	3609	17.70	18.00	1.072	62.9	1.006	-0.01	0.783	0.844
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	55830	3609	17.70	18.00	1.072	62.9	1.006	-0.08	0.475	0.512
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	55830	3609	17.70	18.00	1.072	62.9	1.006	-0.07	0.222	0.239
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	55830	3609	17.70	18.00	1.072	62.9	1.006	0.03	0.194	0.209
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	55340	3560	17.50	18.00	1.122	62.9	1.006	-0.04	0.868	0.980
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	56150	3641	17.65	18.00	1.084	62.9	1.006	0.14	0.811	0.884
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	56640	3690	17.66	18.00	1.081	62.9	1.006	0.13	0.602	0.655
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	55830	3609	17.68	18.00	1.076	62.9	1.006	0.11	0.838	0.907
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	55830	3609	17.68	18.00	1.076	62.9	1.006	0.07	0.502	0.544
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	55830	3609	17.68	18.00	1.076	62.9	1.006	-0.13	0.238	0.258
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	55830	3609	17.68	18.00	1.076	62.9	1.006	-0.06	0.202	0.219
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	55340	3560	17.48	18.00	1.127	62.9	1.006	0.12	0.904	1.025
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	56150	3641	17.64	18.00	1.086	62.9	1.006	-0.08	0.832	0.909
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	56640	3690	17.63	18.00	1.089	62.9	1.006	0.1	0.633	0.693



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	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 6	55340	3560	16.98	17.50	1.127	62.9	1.006	-0.13	0.800	0.907
	LTE Band 48	20M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	55830	3609	17.66	18.00	1.081	62.9	1.006	0.02	0.801	0.871
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	55830	3609	18.68	19.00	1.076	62.9	1.006	0.09	0.850	0.920
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	55830	3609	18.68	19.00	1.076	62.9	1.006	0.02	0.811	0.878
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	55830	3609	18.68	19.00	1.076	62.9	1.006	0.14	0.395	0.428
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	55830	3609	18.68	19.00	1.076	62.9	1.006	0.04	0.432	0.468
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	55340	3560	18.55	19.00	1.109	62.9	1.006	0.01	0.838	0.935
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	56150	3641	18.55	19.00	1.109	62.9	1.006	0.09	0.843	0.941
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	56640	3690	18.61	19.00	1.094	62.9	1.006	0.02	0.881	0.970
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	55340	3560	18.55	19.00	1.109	62.9	1.006	-0.01	0.798	0.890
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	56150	3641	18.55	19.00	1.109	62.9	1.006	0.05	0.806	0.899
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	56640	3690	18.61	19.00	1.094	62.9	1.006	0.11	0.827	0.910
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 6	56640	3690	18.15	18.50	1.084	62.9	1.006	0.12	0.770	0.840
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	55830	3609	18.66	19.00	1.081	62.9	1.006	-0.08	0.819	0.891
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	55830	3609	18.66	19.00	1.081	62.9	1.006	0.07	0.807	0.878
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	55830	3609	18.66	19.00	1.081	62.9	1.006	0.12	0.383	0.417
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	55830	3609	18.66	19.00	1.081	62.9	1.006	-0.12	0.415	0.451
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	55340	3560	18.52	19.00	1.117	62.9	1.006	0.16	0.819	0.920
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	56150	3641	18.53	19.00	1.114	62.9	1.006	-0.12	0.821	0.920
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	56640	3690	18.60	19.00	1.096	62.9	1.006	-0.04	0.842	0.929
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	55340	3560	18.52	19.00	1.117	62.9	1.006	0.08	0.776	0.872
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	56150	3641	18.53	19.00	1.114	62.9	1.006	-0.03	0.784	0.879
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	56640	3690	18.60	19.00	1.096	62.9	1.006	0.03	0.804	0.887
	LTE Band 48	20M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	55830	3609	18.60	19.00	1.096	62.9	1.006	0.03	0.819	0.903
	LTE Band 48	20M	QPSK	100	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	55830	3609	18.60	19.00	1.096	62.9	1.006	0.09	0.788	0.869
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	55830	3609	18.18	19.50	1.355	62.9	1.006	-0.11	0.373	0.509
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	55830	3609	18.18	19.50	1.355	62.9	1.006	0.08	0.396	0.540
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	55830	3609	18.18	19.50	1.355	62.9	1.006	0.05	0.737	1.005
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	55830	3609	18.18	19.50	1.355	62.9	1.006	0.16	0.677	0.923
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	55340	3560	18.13	19.50	1.371	62.9	1.006	-0.09	0.826	1.139
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	56150	3641	18.15	19.50	1.365	62.9	1.006	0.07	0.687	0.943
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	56640	3690	18.10	19.50	1.380	62.9	1.006	-0.09	0.642	0.892
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	55340	3560	18.13	19.50	1.371	62.9	1.006	0.05	0.736	1.015
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	56150	3641	18.15	19.50	1.365	62.9	1.006	0.09	0.612	0.840
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	56640	3690	18.10	19.50	1.380	62.9	1.006	0.16	0.572	0.794
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 6	55340	3560	17.15	18.50	1.365	62.9	1.006	-0.15	0.665	0.913
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	55830	3609	18.16	19.50	1.361	62.9	1.006	-0.06	0.364	0.499
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	55830	3609	18.16	19.50	1.361	62.9	1.006	0.15	0.391	0.536
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	55830	3609	18.16	19.50	1.361	62.9	1.006	0	0.722	0.989
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	55830	3609	18.16	19.50	1.361	62.9	1.006	0.04	0.672	0.920
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	55340	3560	18.09	19.50	1.384	62.9	1.006	0.01	0.812	1.130
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	56150	3641	18.12	19.50	1.374	62.9	1.006	0.15	0.667	0.922
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	56640	3690	18.09	19.50	1.384	62.9	1.006	-0.15	0.616	0.857
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	55340	3560	18.09	19.50	1.384	62.9	1.006	-0.03	0.714	0.994
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	56150	3641	18.12	19.50	1.374	62.9	1.006	0.09	0.594	0.821
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	56640	3690	18.09	19.50	1.384	62.9	1.006	0.06	0.555	0.772
	LTE Band 48	20M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	55830	3609	18.14	19.50	1.368	62.9	1.006	0.09	0.689	0.948
	LTE Band 48	20M	QPSK	100	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	55830	3609	18.14	19.50	1.368	62.9	1.006	0.1	0.661	0.909
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	55830	3609	20.08	21.00	1.236	62.9	1.006	-0.16	0.337	0.419
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	55830	3609	20.08	21.00	1.236	62.9	1.006	-0.15	0.302	0.375
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	55830	3609	20.08	21.00	1.236	62.9	1.006	-0.05	0.816	1.015
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	55830	3609	20.08	21.00	1.236	62.9	1.006	-0.16	0.689	0.857
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	55340	3560	20.00	21.00	1.259	62.9	1.006	0.06	0.702	0.889
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	56150	3641	19.92	21.00	1.282	62.9	1.006	-0.15	0.864	1.115
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	56640	3690	19.95	21.00	1.274	62.9	1.006	-0.11	0.883	1.131
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	55340	3560	20.00	21.00	1.259	62.9	1.006	0.02	0.576	0.729



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	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	56150	3641	19.92	21.00	1.282	62.9	1.006	0.03	0.711	0.917
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	56640	3690	19.95	21.00	1.274	62.9	1.006	-0.12	0.729	0.934
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	55830	3609	20.05	21.00	1.245	62.9	1.006	-0.14	0.342	0.428
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	55830	3609	20.05	21.00	1.245	62.9	1.006	-0.03	0.317	0.397
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	55830	3609	20.05	21.00	1.245	62.9	1.006	-0.14	0.843	1.055
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	55830	3609	20.05	21.00	1.245	62.9	1.006	0.06	0.708	0.886
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	55340	3560	19.98	21.00	1.265	62.9	1.006	0.11	0.717	0.912
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	56150	3641	19.91	21.00	1.285	62.9	1.006	0.03	0.889	1.149
18	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	56640	3690	19.93	21.00	1.279	62.9	1.006	-0.07	0.908	1.169
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	55340	3560	19.98	21.00	1.265	62.9	1.006	-0.03	0.596	0.758
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	56150	3641	19.91	21.00	1.285	62.9	1.006	0.12	0.739	0.956
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	56640	3690	19.93	21.00	1.279	62.9	1.006	-0.1	0.755	0.972
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 6	56640	3690	18.92	20.00	1.282	62.9	1.006	0.04	0.711	0.917
	LTE Band 48	20M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	55830	3609	19.98	21.00	1.265	62.9	1.006	-0.01	0.820	1.043
	LTE Band 48	20M	QPSK	100	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	55830	3609	19.98	21.00	1.265	62.9	1.006	-0.13	0.688	0.875
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	641666	3624.99	15.77	16.50	1.183	-	-	-0.11	0.753	0.891
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	641666	3624.99	15.77	16.50	1.183	-	-	0.09	0.448	0.530
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	641666	3624.99	15.77	16.50	1.183	-	-	-0.03	0.208	0.246
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	641666	3624.99	15.77	16.50	1.183	-	-	0.13	0.176	0.208
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	638000	3570	15.72	16.50	1.197	-	-	-0.16	0.855	1.023
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	645332	3679.98	15.69	16.50	1.205	-	-	0.02	0.533	0.642
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 6	638000	3570	15.25	16.00	1.189	-	-	0.01	0.766	0.910
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	641666	3624.99	15.75	16.50	1.189	-	-	0.13	0.743	0.883
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	641666	3624.99	15.75	16.50	1.189	-	-	-0.03	0.414	0.492
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	641666	3624.99	15.75	16.50	1.189	-	-	-0.03	0.204	0.242
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	641666	3624.99	15.75	16.50	1.189	-	-	-0.15	0.175	0.208
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	638000	3570	15.69	16.50	1.205	-	-	0.02	0.828	0.998
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	645332	3679.98	15.63	16.50	1.222	-	-	0.01	0.511	0.624
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	641666	3624.99	15.70	16.50	1.202	-	-	0.04	0.735	0.884
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.08	17.00	1.236	-	-	-0.05	0.840	1.038
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.08	17.00	1.236	-	-	0.05	0.725	0.896
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.08	17.00	1.236	-	-	-0.13	0.378	0.467
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.08	17.00	1.236	-	-	-0.01	0.412	0.509
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	638000	3570	16.05	17.00	1.245	-	-	-0.06	0.816	1.016
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	645332	3679.98	16.02	17.00	1.253	-	-	0.09	0.845	1.059
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	638000	3570	16.05	17.00	1.245	-	-	-0.16	0.711	0.885
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	645332	3679.98	16.02	17.00	1.253	-	-	-0.14	0.736	0.922
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 6	645332	3679.98	15.57	16.50	1.239	-	-	0.11	0.750	0.929
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.05	17.00	1.245	-	-	0.12	0.818	1.018
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.05	17.00	1.245	-	-	-0.15	0.706	0.879
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.05	17.00	1.245	-	-	-0.06	0.368	0.458
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.05	17.00	1.245	-	-	-0.14	0.401	0.499
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	638000	3570	15.95	17.00	1.274	-	-	0.02	0.794	1.011
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	645332	3679.98	16.00	17.00	1.259	-	-	-0.1	0.823	1.036
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	638000	3570	15.95	17.00	1.274	-	-	0.01	0.692	0.881
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	645332	3679.98	16.00	17.00	1.259	-	-	0.01	0.717	0.903
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.03	17.00	1.250	-	-	-0.08	0.796	0.995
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.03	17.00	1.250	-	-	0.16	0.687	0.859
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.70	16.50	1.202	-	-	-0.14	0.339	0.408
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.70	16.50	1.202	-	-	0.06	0.351	0.422
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.70	16.50	1.202	-	-	0.03	0.650	0.781
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.70	16.50	1.202	-	-	0.07	0.588	0.707
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	638000	3570	15.65	16.50	1.216	-	-	-0.16	0.839	1.020
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	645332	3679.98	15.63	16.50	1.222	-	-	-0.13	0.654	0.799
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	638000	3570	15.65	16.50	1.216	-	-	-0.03	0.748	0.910
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	645332	3679.98	15.63	16.50	1.222	-	-	-0.12	0.583	0.712



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	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 6	638000	3570	15.11	16.00	1.227	-	-	0.09	0.745	0.914
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.69	16.50	1.205	-	-	0.09	0.300	0.362
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.69	16.50	1.205	-	-	0.06	0.282	0.340
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.69	16.50	1.205	-	-	0.01	0.580	0.699
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.69	16.50	1.205	-	-	-0.02	0.527	0.635
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	638000	3570	15.63	16.50	1.222	-	-	-0.04	0.699	0.854
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	645332	3679.98	15.60	16.50	1.230	-	-	-0.05	0.583	0.717
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	638000	3570	15.63	16.50	1.222	-	-	0.06	0.726	0.887
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	645332	3679.98	15.60	16.50	1.230	-	-	0.13	0.566	0.696
	FR1 n48	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.64	16.50	1.219	-	-	0.14	0.581	0.708
	FR1 n48	40M	QPSK	100	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.64	16.50	1.219	-	-	-0.03	0.534	0.651
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.93	17.00	1.279	-	-	-0.12	0.249	0.319
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.93	17.00	1.279	-	-	0.15	0.178	0.228
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.93	17.00	1.279	-	-	-0.06	0.856	1.095
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.93	17.00	1.279	-	-	-0.06	0.422	0.540
19	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	638000	3570	15.86	17.00	1.300	-	-	0.06	0.885	1.151
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	645332	3679.98	15.90	17.00	1.288	-	-	0.1	0.837	1.078
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 6	638000	3570	14.91	16.00	1.285	-	-	-0.11	0.700	0.900
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.86	17.00	1.300	-	-	-0.03	0.234	0.304
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.86	17.00	1.300	-	-	-0.01	0.167	0.217
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.86	17.00	1.300	-	-	-0.1	0.811	1.054
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.86	17.00	1.300	-	-	0.11	0.408	0.530
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	638000	3570	15.84	17.00	1.306	-	-	-0.06	0.837	1.093
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	645332	3679.98	15.82	17.00	1.312	-	-	-0.03	0.816	1.071
	FR1 n48	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.83	17.00	1.309	-	-	-0.16	0.781	1.022
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	641666	3624.99	17.10	18.00	1.230	-	-	0.05	0.587	0.722
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	641666	3624.99	17.10	18.00	1.230	-	-	0.16	0.326	0.401
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	641666	3624.99	17.10	18.00	1.230	-	-	0.14	0.152	0.187
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	641666	3624.99	17.10	18.00	1.230	-	-	0.07	0.131	0.161
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	641666	3624.99	17.08	18.00	1.236	-	-	-0.02	0.606	0.749
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	641666	3624.99	17.08	18.00	1.236	-	-	-0.05	0.345	0.426
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	641666	3624.99	17.08	18.00	1.236	-	-	0.07	0.169	0.209
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	641666	3624.99	17.08	18.00	1.236	-	-	-0.01	0.137	0.169
	FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	641666	3624.99	17.06	18.00	1.242	-	-	0.09	0.568	0.705
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	633332	3499.98	17.00	18.00	1.259	-	-	0.04	0.854	1.075
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	633332	3499.98	17.00	18.00	1.259	-	-	-0.08	0.396	0.499
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	633332	3499.98	17.00	18.00	1.259	-	-	0.14	0.232	0.292
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	633332	3499.98	17.00	18.00	1.259	-	-	0.1	0.160	0.201
20	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	633332	3499.98	16.95	18.00	1.274	-	-	0.04	0.897	1.142
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	633332	3499.98	16.95	18.00	1.274	-	-	-0.01	0.422	0.537
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	633332	3499.98	16.95	18.00	1.274	-	-	0.02	0.246	0.313
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	633332	3499.98	16.95	18.00	1.274	-	-	0.03	0.170	0.216
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 6	633332	3499.98	15.95	17.00	1.274	-	-	-0.09	0.722	0.919
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	633332	3499.98	16.94	18.00	1.276	-	-	-0.05	0.831	1.061
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	656000	3840	16.92	18.00	1.282	-	-	-0.04	0.708	0.908
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	656000	3840	16.92	18.00	1.282	-	-	0.1	0.409	0.524
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	656000	3840	16.92	18.00	1.282	-	-	-0.09	0.281	0.360
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	656000	3840	16.92	18.00	1.282	-	-	0.07	0.166	0.213
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	656000	3840	16.90	18.00	1.288	-	-	-0.09	0.715	0.921
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	656000	3840	16.90	18.00	1.288	-	-	-0.03	0.430	0.554
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 3	DSI 5	656000	3840	16.90	18.00	1.288	-	-	0.05	0.288	0.371
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 3	DSI 5	656000	3840	16.90	18.00	1.288	-	-	0.06	0.177	0.228
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 3	DSI 5	656000	3840	16.88	18.00	1.294	-	-	0.09	0.689	0.892
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 3	DSI 5	656000	3840	16.88	18.00	1.294	-	-	-0.08	0.394	0.510
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.96	17.50	1.132	-	-	-0.03	0.730	0.827
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.96	17.50	1.132	-	-	0.05	0.721	0.816



FCC SAR Test Report

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FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.96	17.50	1.132	-	-	-0.05	0.356	0.403
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.96	17.50	1.132	-	-	-0.08	0.381	0.431
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.95	17.50	1.135	-	-	0.13	0.746	0.847
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.95	17.50	1.135	-	-	-0.08	0.738	0.838
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.95	17.50	1.135	-	-	-0.02	0.362	0.411
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.95	17.50	1.135	-	-	-0.14	0.396	0.449
FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	641666	3624.99	16.93	17.50	1.140	-	-	-0.02	0.715	0.815
FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	641666	3624.99	16.93	17.50	1.140	-	-	0.12	0.689	0.786
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	633332	3499.98	16.88	17.50	1.153	-	-	-0.01	0.729	0.841
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	633332	3499.98	16.88	17.50	1.153	-	-	-0.07	0.712	0.821
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	633332	3499.98	16.88	17.50	1.153	-	-	-0.130	0.386	0.445
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	633332	3499.98	16.88	17.50	1.153	-	-	-0.140	0.406	0.468
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	633332	3499.98	16.85	17.50	1.161	-	-	0.06	0.693	0.805
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	633332	3499.98	16.85	17.50	1.161	-	-	-0.01	0.682	0.792
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	633332	3499.98	16.85	17.50	1.161	-	-	0.16	0.366	0.425
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	633332	3499.98	16.85	17.50	1.161	-	-	-0.08	0.394	0.458
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	633332	3499.98	16.79	17.50	1.178	-	-	-0.16	0.689	0.811
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	633332	3499.98	16.79	17.50	1.178	-	-	-0.12	0.664	0.782
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	656000	3840	16.90	17.50	1.148	-	-	-0.04	0.903	1.037
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	656000	3840	16.90	17.50	1.148	-	-	-0.15	0.877	1.007
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	656000	3840	16.90	17.50	1.148	-	-	0.03	0.483	0.555
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	656000	3840	16.90	17.50	1.148	-	-	0.09	0.513	0.589
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 6	656000	3840	16.36	17.00	1.159	-	-	-0.05	0.805	0.933
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	656000	3840	16.85	17.50	1.161	-	-	0.13	0.866	1.006
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	656000	3840	16.85	17.50	1.161	-	-	0.06	0.859	0.998
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	656000	3840	16.85	17.50	1.161	-	-	-0.08	0.442	0.513
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	656000	3840	16.85	17.50	1.161	-	-	0.12	0.479	0.556
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	656000	3840	16.82	17.50	1.169	-	-	-0.04	0.840	0.982
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	DSI 5	656000	3840	16.82	17.50	1.169	-	-	-0.06	0.834	0.975
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 4	DSI 5	656000	3840	16.82	17.50	1.169	-	-	0.04	0.429	0.502
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 4	DSI 5	656000	3840	16.82	17.50	1.169	-	-	-0.09	0.465	0.544
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.55	16.00	1.109	-	-	0.13	0.354	0.393
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.55	16.00	1.109	-	-	-0.11	0.378	0.419
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.55	16.00	1.109	-	-	0.07	0.733	0.813
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.55	16.00	1.109	-	-	-0.05	0.657	0.729
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.50	16.00	1.122	-	-	0.1	0.321	0.360
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.50	16.00	1.122	-	-	0.11	0.339	0.380
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.50	16.00	1.122	-	-	-0.02	0.687	0.771
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.50	16.00	1.122	-	-	0.16	0.621	0.697
FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	641666	3624.99	15.42	16.00	1.143	-	-	-0.13	0.700	0.800
FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	641666	3624.99	15.42	16.00	1.143	-	-	0.05	0.628	0.718
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	633332	3499.98	15.40	16.00	1.148	-	-	-0.09	0.450	0.517
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	633332	3499.98	15.40	16.00	1.148	-	-	-0.09	0.469	0.538
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	633332	3499.98	15.40	16.00	1.148	-	-	0.04	0.983	1.129
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	633332	3499.98	15.40	16.00	1.148	-	-	0	0.826	0.948
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 6	633332	3499.98	14.37	15.00	1.156	-	-	-0.11	0.792	0.916
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	633332	3499.98	15.36	16.00	1.159	-	-	-0.08	0.401	0.465
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	633332	3499.98	15.36	16.00	1.159	-	-	0.04	0.433	0.502
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	633332	3499.98	15.36	16.00	1.159	-	-	-0.11	0.950	1.101
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	633332	3499.98	15.36	16.00	1.159	-	-	0.04	0.799	0.926
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	633332	3499.98	15.28	16.00	1.180	-	-	-0.02	0.937	1.106
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	633332	3499.98	15.28	16.00	1.180	-	-	0.05	0.801	0.945
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	656000	3840	15.48	16.00	1.127	-	-	0.1	0.307	0.346
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	656000	3840	15.48	16.00	1.127	-	-	-0.05	0.329	0.371
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	656000	3840	15.48	16.00	1.127	-	-	0.07	0.646	0.728
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	656000	3840	15.48	16.00	1.127	-	-	0.11	0.502	0.566



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FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	656000	3840	15.45	16.00	1.135	-	-	-0.01	0.289	0.328
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	656000	3840	15.45	16.00	1.135	-	-	-0.03	0.311	0.353
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	656000	3840	15.45	16.00	1.135	-	-	0.06	0.625	0.709
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	656000	3840	15.45	16.00	1.135	-	-	-0.02	0.481	0.546
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	656000	3840	15.39	16.00	1.151	-	-	0.13	0.599	0.689
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	656000	3840	15.39	16.00	1.151	-	-	0.13	0.491	0.565
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.83	16.50	1.167	-	-	-0.01	0.238	0.278
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.83	16.50	1.167	-	-	-0.14	0.157	0.183
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.83	16.50	1.167	-	-	0	0.752	0.877
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.83	16.50	1.167	-	-	-0.06	0.371	0.433
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	0.02	0.247	0.291
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	-0.08	0.166	0.195
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	0.06	0.780	0.919
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	641666	3624.99	15.79	16.50	1.178	-	-	0	0.428	0.504
FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	641666	3624.99	15.76	16.50	1.186	-	-	0.14	0.753	0.893
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	633332	3499.98	15.80	16.50	1.175	-	-	0.01	0.173	0.203
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	633332	3499.98	15.80	16.50	1.175	-	-	-0.04	0.111	0.130
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	633332	3499.98	15.80	16.50	1.175	-	-	0.06	0.643	0.755
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	633332	3499.98	15.80	16.50	1.175	-	-	-0.13	0.245	0.288
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	633332	3499.98	15.75	16.50	1.189	-	-	-0.03	0.193	0.229
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	633332	3499.98	15.75	16.50	1.189	-	-	0.16	0.118	0.140
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	633332	3499.98	15.75	16.50	1.189	-	-	0.09	0.690	0.820
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	633332	3499.98	15.75	16.50	1.189	-	-	0.11	0.292	0.347
FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	633332	3499.98	15.72	16.50	1.197	-	-	0.13	0.671	0.803
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	656000	3840	15.82	16.50	1.169	-	-	0.08	0.232	0.271
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	656000	3840	15.82	16.50	1.169	-	-	-0.06	0.174	0.203
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	656000	3840	15.82	16.50	1.169	-	-	-0.12	0.883	1.033
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	656000	3840	15.82	16.50	1.169	-	-	0.09	0.426	0.498
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 6	656000	3840	15.25	16.00	1.189	-	-	-0.06	0.780	0.927
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	656000	3840	15.81	16.50	1.172	-	-	0.03	0.214	0.251
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	656000	3840	15.81	16.50	1.172	-	-	0.05	0.166	0.195
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	656000	3840	15.81	16.50	1.172	-	-	-0.15	0.861	1.009
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	656000	3840	15.81	16.50	1.172	-	-	0.14	0.398	0.467
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	656000	3840	15.76	16.50	1.186	-	-	0.12	0.856	1.015
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	656000	3840	15.76	16.50	1.186	-	-	0.16	0.401	0.475



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN2.4GHz&BT																
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 6	Power level 1	39	2441	15.70	16.50	1.202	76.53	1.307	0.1	0.176	0.277
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 6	Power level 1	39	2441	15.70	16.50	1.202	76.53	1.307	-0.02	0.121	0.190
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 6	Power level 1	39	2441	15.70	16.50	1.202	76.53	1.307	0.06	0.719	1.130
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 6	Power level 1	39	2441	15.70	16.50	1.202	76.53	1.307	0.09	0.244	0.383
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 6	Power level 1	0	2402	15.40	16.50	1.288	76.53	1.307	0.15	0.641	1.079
21	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 6	Power level 1	78	2480	15.60	16.50	1.230	76.53	1.307	0.06	0.734	1.180
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 6	Power level 2	39	2441	13.20	13.50	1.072	76.53	1.307	-0.12	0.091	0.127
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 6	Power level 2	39	2441	13.20	13.50	1.072	76.53	1.307	-0.04	0.063	0.088
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 6	Power level 2	39	2441	13.20	13.50	1.072	76.53	1.307	-0.03	0.374	0.524
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 6	Power level 2	39	2441	13.20	13.50	1.072	76.53	1.307	-0.09	0.126	0.176
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 6	Power level 3	39	2441	9.40	10.00	1.148	76.53	1.307	-0.07	0.042	0.063
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 6	Power level 3	39	2441	9.40	10.00	1.148	76.53	1.307	-0.03	0.031	0.047
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 6	Power level 3	39	2441	9.40	10.00	1.148	76.53	1.307	0.09	0.169	0.254
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 6	Power level 3	39	2441	9.40	10.00	1.148	76.53	1.307	0.15	0.059	0.089
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power level 1	39	2441	17.10	18.00	1.230	76.53	1.307	-0.08	0.460	0.740
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Power level 1	39	2441	17.10	18.00	1.230	76.53	1.307	-0.07	0.454	0.730
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Power level 1	39	2441	17.10	18.00	1.230	76.53	1.307	-0.05	0.531	0.854
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Power level 1	39	2441	17.10	18.00	1.230	76.53	1.307	0.14	0.471	0.757
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Power level 1	0	2402	16.80	18.00	1.318	76.53	1.307	0.14	0.577	0.994
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Power level 1	78	2480	16.60	18.00	1.380	76.53	1.307	-0.16	0.364	0.657
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power level 2	39	2441	14.50	15.50	1.259	76.53	1.307	-0.07	0.262	0.431
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Power level 2	39	2441	14.50	15.50	1.259	76.53	1.307	0.14	0.255	0.420
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Power level 2	39	2441	14.50	15.50	1.259	76.53	1.307	-0.02	0.312	0.513
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Power level 2	39	2441	14.50	15.50	1.259	76.53	1.307	-0.08	0.271	0.446
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power level 3	39	2441	12.60	13.50	1.230	76.53	1.307	0.02	0.151	0.243
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Power level 3	39	2441	12.60	13.50	1.230	76.53	1.307	-0.01	0.149	0.240
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Power level 3	39	2441	12.60	13.50	1.230	76.53	1.307	0.07	0.167	0.269
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Power level 3	39	2441	12.60	13.50	1.230	76.53	1.307	0.13	0.152	0.244
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6+7	Power level 1	1	2412	16.85	18.00	1.303	98.53	1.015	-0.1	0.438	0.579
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6+7	Power level 1	1	2412	16.85	18.00	1.303	98.53	1.015	-0.01	0.473	0.626
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+7	Power level 1	1	2412	16.85	18.00	1.303	98.53	1.015	-0.05	0.731	0.967
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+7	Power level 1	1	2412	16.85	18.00	1.303	98.53	1.015	0.04	0.519	0.686
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+7	Power level 1	6	2437	16.81	18.00	1.315	98.53	1.015	-0.02	0.758	1.012
22	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+7	Power level 1	11	2462	16.83	18.00	1.309	98.53	1.015	-0.14	0.798	1.060
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6+7	Power level 2	1	2412	13.78	15.00	1.324	98.53	1.015	-0.12	0.235	0.316
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6+7	Power level 2	1	2412	13.78	15.00	1.324	98.53	1.015	-0.13	0.251	0.337
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+7	Power level 2	1	2412	13.78	15.00	1.324	98.53	1.015	-0.06	0.396	0.532
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+7	Power level 2	1	2412	13.78	15.00	1.324	98.53	1.015	0.09	0.263	0.354
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6+7	Power level 3	1	2412	10.74	12.00	1.337	98.53	1.015	0.01	0.117	0.159
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6+7	Power level 3	1	2412	10.74	12.00	1.337	98.53	1.015	0.06	0.131	0.178
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+7	Power level 3	1	2412	10.74	12.00	1.337	98.53	1.015	0.09	0.202	0.274
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+7	Power level 3	1	2412	10.74	12.00	1.337	98.53	1.015	0.13	0.139	0.189
WLAN5GHz																
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+6	Power level 1	50	5250	15.13	16.50	1.371	99.54	1.005	0.12	0.458	0.631
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+6	Power level 1	50	5250	15.13	16.50	1.371	99.54	1.005	0.07	0.535	0.737
23	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+6	Power level 1	50	5250	15.13	16.50	1.371	99.54	1.005	-0.15	0.794	1.094
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+6	Power level 1	50	5250	15.13	16.50	1.371	99.54	1.005	0.16	0.686	0.945
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+6	Power level 2	50	5250	12.09	13.50	1.384	99.54	1.005	0.1	0.241	0.335
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+6	Power level 2	50	5250	12.09	13.50	1.384	99.54	1.005	0.14	0.273	0.380
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+6	Power level 2	50	5250	12.09	13.50	1.384	99.54	1.005	-0.02	0.409	0.569
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+6	Power level 2	50	5250	12.09	13.50	1.384	99.54	1.005	0.07	0.352	0.489



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	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+6	Power level 3	50	5250	9.17	10.50	1.358	99.54	1.005	0.01	0.131	0.179
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+6	Power level 3	50	5250	9.17	10.50	1.358	99.54	1.005	-0.08	0.142	0.194
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+6	Power level 3	50	5250	9.17	10.50	1.358	99.54	1.005	0.08	0.213	0.291
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+6	Power level 3	50	5250	9.17	10.50	1.358	99.54	1.005	-0.07	0.183	0.250
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+6	Power level 1	114	5570	15.68	17.50	1.521	99.54	1.005	-0.09	0.424	0.648
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+6	Power level 1	114	5570	15.68	17.50	1.521	99.54	1.005	-0.16	0.515	0.787
24	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+6	Power level 1	114	5570	15.68	17.50	1.521	99.54	1.005	-0.09	0.770	1.177
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+6	Power level 1	114	5570	15.68	17.50	1.521	99.54	1.005	0.01	0.694	1.061
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+6	Power level 2	114	5570	12.70	14.50	1.514	99.54	1.005	0.04	0.225	0.342
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+6	Power level 2	114	5570	12.70	14.50	1.514	99.54	1.005	-0.06	0.264	0.402
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+6	Power level 2	114	5570	12.70	14.50	1.514	99.54	1.005	0.14	0.381	0.580
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+6	Power level 2	114	5570	12.70	14.50	1.514	99.54	1.005	-0.08	0.342	0.520
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+6	Power level 3	114	5570	9.63	11.50	1.538	99.54	1.005	0.02	0.125	0.193
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+6	Power level 3	114	5570	9.63	11.50	1.538	99.54	1.005	-0.15	0.143	0.221
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+6	Power level 3	114	5570	9.63	11.50	1.538	99.54	1.005	-0.09	0.194	0.300
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+6	Power level 3	114	5570	9.63	11.50	1.538	99.54	1.005	-0.03	0.168	0.260
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+6	Power level 1	155	5775	14.78	16.50	1.486	99.63	1.004	-0.02	0.427	0.637
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+6	Power level 1	155	5775	14.78	16.50	1.486	99.63	1.004	-0.04	0.479	0.715
25	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+6	Power level 1	155	5775	14.78	16.50	1.486	99.63	1.004	-0.04	0.713	1.064
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+6	Power level 1	155	5775	14.78	16.50	1.486	99.63	1.004	0.15	0.632	0.943
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+6	Power level 2	155	5775	11.73	13.50	1.503	99.63	1.004	-0.14	0.221	0.334
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+6	Power level 2	155	5775	11.73	13.50	1.503	99.63	1.004	0.12	0.253	0.382
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+6	Power level 2	155	5775	11.73	13.50	1.503	99.63	1.004	0.04	0.383	0.578
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+6	Power level 2	155	5775	11.73	13.50	1.503	99.63	1.004	0.11	0.309	0.466
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+6	Power level 3	155	5775	8.77	10.50	1.489	99.63	1.004	-0.09	0.124	0.185
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+6	Power level 3	155	5775	8.77	10.50	1.489	99.63	1.004	0.09	0.133	0.199
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+6	Power level 3	155	5775	8.77	10.50	1.489	99.63	1.004	0.09	0.186	0.278
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+6	Power level 3	155	5775	8.77	10.50	1.489	99.63	1.004	-0.04	0.161	0.241



15.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 9	23095	707.5	24.17	25.00	1.211	-	-	0.11	0.215	0.260
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 9	23095	707.5	24.17	25.00	1.211	-	-	-0.03	0.303	0.367
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 9	23095	707.5	24.17	25.00	1.211	-	-	0.14	0.284	0.344
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 9	23095	707.5	24.17	25.00	1.211	-	-	-0.16	0.166	0.201
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	DSI 9	23095	707.5	23.15	24.00	1.216	-	-	0.14	0.203	0.247
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	DSI 9	23095	707.5	23.15	24.00	1.216	-	-	0.07	0.292	0.355
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	DSI 9	23095	707.5	23.15	24.00	1.216	-	-	0.08	0.281	0.342
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 0	DSI 9	23095	707.5	23.15	24.00	1.216	-	-	-0.07	0.164	0.199
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 9	23095	707.5	22.58	23.50	1.236	-	-	0.14	0.531	0.656
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 9	23095	707.5	22.58	23.50	1.236	-	-	-0.06	0.659	0.814
26	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 9	23095	707.5	22.58	23.50	1.236	-	-	-0.08	0.760	0.939
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	DSI 9	23095	707.5	22.55	23.50	1.245	-	-	-0.03	0.519	0.646
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	DSI 9	23095	707.5	22.55	23.50	1.245	-	-	0.13	0.642	0.799
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 1	DSI 9	23095	707.5	22.55	23.50	1.245	-	-	-0.04	0.731	0.910
	LTE Band 12	10M	QPSK	50	0	-	Back	10mm	Ant 1	DSI 9	23095	707.5	22.49	23.50	1.262	-	-	-0.09	0.639	0.806
	LTE Band 12	10M	QPSK	50	0	-	Left Side	10mm	Ant 1	DSI 9	23095	707.5	22.49	23.50	1.262	-	-	-0.02	0.722	0.911
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9	141500	707.5	23.55	25.00	1.396	-	-	-0.08	0.244	0.341
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9	141500	707.5	23.55	25.00	1.396	-	-	0.07	0.351	0.490
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9	141500	707.5	23.55	25.00	1.396	-	-	-0.01	0.317	0.443
	FR1 n12	15M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	DSI 9	141500	707.5	23.55	25.00	1.396	-	-	0.1	0.199	0.278
	FR1 n12	15M	QPSK	18	10	DFT-15	Front	10mm	Ant 0	DSI 9	141500	707.5	23.51	25.00	1.409	-	-	-0.14	0.262	0.369
	FR1 n12	15M	QPSK	18	10	DFT-15	Back	10mm	Ant 0	DSI 9	141500	707.5	23.51	25.00	1.409	-	-	0.08	0.336	0.474
	FR1 n12	15M	QPSK	18	10	DFT-15	Left Side	10mm	Ant 0	DSI 9	141500	707.5	23.51	25.00	1.409	-	-	0.1	0.298	0.420
	FR1 n12	15M	QPSK	18	10	DFT-15	Bottom Side	10mm	Ant 0	DSI 9	141500	707.5	23.51	25.00	1.409	-	-	-0.09	0.207	0.292
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI 9	141500	707.5	22.05	23.50	1.396	-	-	0.05	0.501	0.700
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI 9	141500	707.5	22.05	23.50	1.396	-	-	0.07	0.600	0.838
27	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	DSI 9	141500	707.5	22.05	23.50	1.396	-	-	0.15	0.676	0.944
	FR1 n12	15M	QPSK	18	10	DFT-15	Front	10mm	Ant 1	DSI 9	141500	707.5	22.00	23.50	1.413	-	-	0.15	0.484	0.684
	FR1 n12	15M	QPSK	18	10	DFT-15	Back	10mm	Ant 1	DSI 9	141500	707.5	22.00	23.50	1.413	-	-	0.06	0.571	0.807
	FR1 n12	15M	QPSK	18	10	DFT-15	Left Side	10mm	Ant 1	DSI 9	141500	707.5	22.00	23.50	1.413	-	-	-0.16	0.638	0.901
	FR1 n12	15M	QPSK	36	0	DFT-15	Back	10mm	Ant 1	DSI 9	141500	707.5	21.97	23.50	1.422	-	-	0	0.566	0.805
	FR1 n12	15M	QPSK	36	0	DFT-15	Left Side	10mm	Ant 1	DSI 9	141500	707.5	21.97	23.50	1.422	-	-	-0.04	0.606	0.862
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 0	DSI 9	251	848.8	25.87	27.50	1.455	-	-	-0.12	0.170	0.247
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 0	DSI 9	251	848.8	25.87	27.50	1.455	-	-	-0.03	0.308	0.448
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 0	DSI 9	251	848.8	25.87	27.50	1.455	-	-	0.03	0.217	0.316
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 0	DSI 9	251	848.8	25.87	27.50	1.455	-	-	-0.15	0.123	0.179
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 1	DSI 9	251	848.8	23.88	25.50	1.452	-	-	0.01	0.351	0.510
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 1	DSI 9	251	848.8	23.88	25.50	1.452	-	-	-0.05	0.460	0.668
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	DSI 9	251	848.8	23.88	25.50	1.452	-	-	0.02	0.614	0.892
28	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	DSI 9	128	824.2	23.69	25.50	1.517	-	-	-0.09	0.625	0.948
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 1	DSI 9	189	836.4	23.60	25.50	1.549	-	-	0.04	0.558	0.864
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 9	4182	836.4	24.05	25.00	1.245	-	-	-0.12	0.356	0.443
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 9	4182	836.4	24.05	25.00	1.245	-	-	-0.03	0.516	0.642
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9	4182	836.4	24.05	25.00	1.245	-	-	-0.06	0.443	0.551
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 0	DSI 9	4182	836.4	24.05	25.00	1.245	-	-	0.07	0.285	0.355
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 9	4182	836.4	23.18	24.00	1.208	-	-	-0.02	0.461	0.557
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 9	4182	836.4	23.18	24.00	1.208	-	-	-0.06	0.535	0.646
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 9	4182	836.4	23.18	24.00	1.208	-	-	-0.07	0.718	0.867
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 9	4132	826.4	23.12	24.00	1.225	-	-	0.14	0.618	0.757



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29	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 9	4233	846.6	23.10	24.00	1.230	-	-	0.07	0.782	0.962
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	DSI 9	26865	831.5	24.21	25.00	1.199	-	-	-0.13	0.301	0.361
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	DSI 9	26865	831.5	24.21	25.00	1.199	-	-	-0.03	0.405	0.486
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 0	DSI 9	26865	831.5	24.21	25.00	1.199	-	-	0.15	0.346	0.415
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 0	DSI 9	26865	831.5	24.21	25.00	1.199	-	-	0.09	0.228	0.273
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	DSI 9	26865	831.5	23.12	24.00	1.225	-	-	-0.11	0.281	0.344
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	DSI 9	26865	831.5	23.12	24.00	1.225	-	-	0.04	0.380	0.465
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 0	DSI 9	26865	831.5	23.12	24.00	1.225	-	-	0.11	0.325	0.398
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 0	DSI 9	26865	831.5	23.12	24.00	1.225	-	-	-0.15	0.213	0.261
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	DSI 9	26865	831.5	24.17	25.00	1.211	-	-	0.08	0.514	0.622
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	DSI 9	26865	831.5	24.17	25.00	1.211	-	-	-0.06	0.626	0.758
30	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 1	DSI 9	26865	831.5	24.17	25.00	1.211	-	-	-0.14	0.806	0.976
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	DSI 9	26865	831.5	23.15	24.00	1.216	-	-	0	0.487	0.592
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	DSI 9	26865	831.5	23.15	24.00	1.216	-	-	-0.09	0.607	0.738
	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 1	DSI 9	26865	831.5	23.15	24.00	1.216	-	-	0.16	0.755	0.918
	LTE Band 26	15M	QPSK	75	0	-	Left Side	10mm	Ant 1	DSI 9	26865	831.5	23.12	24.00	1.225	-	-	-0.01	0.761	0.932
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9	167300	836.5	23.63	25.00	1.371	-	-	-0.04	0.321	0.440
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9	167300	836.5	23.63	25.00	1.371	-	-	0.05	0.457	0.626
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9	167300	836.5	23.63	25.00	1.371	-	-	0.04	0.355	0.487
	FR1 n5	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 0	DSI 9	167300	836.5	23.63	25.00	1.371	-	-	0.06	0.267	0.366
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	DSI 9	167300	836.5	23.62	25.00	1.374	-	-	0.01	0.317	0.436
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	DSI 9	167300	836.5	23.62	25.00	1.374	-	-	0.03	0.432	0.594
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	DSI 9	167300	836.5	23.62	25.00	1.374	-	-	-0.1	0.343	0.471
	FR1 n5	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 0	DSI 9	167300	836.5	23.62	25.00	1.374	-	-	0.14	0.255	0.350
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI 9	167300	836.5	22.78	24.00	1.324	-	-	0.02	0.404	0.535
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI 9	167300	836.5	22.78	24.00	1.324	-	-	-0.09	0.488	0.646
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	DSI 9	167300	836.5	22.78	24.00	1.324	-	-	0.16	0.675	0.894
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	DSI 9	167300	836.5	22.72	24.00	1.343	-	-	-0.11	0.489	0.657
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	DSI 9	167300	836.5	22.72	24.00	1.343	-	-	-0.16	0.604	0.811
31	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 1	DSI 9	167300	836.5	22.72	24.00	1.343	-	-	0.11	0.702	0.943
	FR1 n5	20M	QPSK	100	0	DFT-15	Back	10mm	Ant 1	DSI 9	167300	836.5	22.71	24.00	1.346	-	-	-0.01	0.587	0.790
	FR1 n5	20M	QPSK	100	0	DFT-15	Left Side	10mm	Ant 1	DSI 9	167300	836.5	22.71	24.00	1.346	-	-	0	0.661	0.890
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	DSI 9	1413	1732.6	18.76	19.50	1.186	-	-	0.14	0.410	0.486
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	DSI 9	1413	1732.6	18.76	19.50	1.186	-	-	-0.1	0.559	0.663
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI 9	1413	1732.6	18.76	19.50	1.186	-	-	-0.09	0.071	0.084
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 2	DSI 9	1413	1732.6	18.76	19.50	1.186	-	-	-0.15	0.084	0.100
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 9	1413	1732.6	18.76	19.50	1.186	-	-	0.15	0.729	0.864
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 9	1312	1712.4	18.73	19.50	1.194	-	-	-0.01	0.640	0.764
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 9	1513	1752.6	18.71	19.50	1.199	-	-	-0.12	0.741	0.889
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	DSI 9	1413	1732.6	21.15	22.00	1.216	-	-	0.04	0.408	0.496
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI 9	1413	1732.6	21.15	22.00	1.216	-	-	0.13	0.725	0.882
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 9	1413	1732.6	21.15	22.00	1.216	-	-	0.12	0.742	0.902
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 3	DSI 9	1413	1732.6	21.15	22.00	1.216	-	-	0.02	0.128	0.156
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI 9	1312	1712.4	21.08	22.00	1.236	-	-	0.08	0.545	0.674
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI 9	1513	1752.6	21.10	22.00	1.230	-	-	0.16	0.731	0.899
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 9	1312	1712.4	21.08	22.00	1.236	-	-	0.1	0.611	0.755
32	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 9	1513	1752.6	21.10	22.00	1.230	-	-	-0.19	0.780	0.960
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI 9	1413	1732.6	20.00	21.00	1.259	-	-	-0.13	0.310	0.390
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI 9	1413	1732.6	20.00	21.00	1.259	-	-	0	0.465	0.585
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI 9	1413	1732.6	20.00	21.00	1.259	-	-	0.15	0.205	0.258
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 9	1413	1732.6	20.00	21.00	1.259	-	-	-0.05	0.693	0.872
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 9	1312	1712.4	19.97	21.00	1.268	-	-	0.02	0.589	0.747
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 9	1513	1752.6	19.95	21.00	1.274	-	-	-0.01	0.724	0.922
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 9	132322	1745	19.02	20.00	1.253	-	-	0.02	0.319	0.400
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	132322	1745	19.02	20.00	1.253	-	-	-0.12	0.441	0.553
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 9	132322	1745	19.02	20.00	1.253	-	-	-0.09	0.060	0.075



FCC SAR Test Report

Report No. : FA490417

	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 2	DSI 9	132322	1745	19.02	20.00	1.253	-	-	-0.1	0.085	0.107
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	132322	1745	19.02	20.00	1.253	-	-	-0.15	0.662	0.830
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	132072	1720	18.85	20.00	1.303	-	-	0.01	0.581	0.757
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	132572	1770	18.86	20.00	1.300	-	-	-0.06	0.683	0.888
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 9	132322	1745	18.95	20.00	1.274	-	-	-0.04	0.317	0.404
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	132322	1745	18.95	20.00	1.274	-	-	0.09	0.439	0.559
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 9	132322	1745	18.95	20.00	1.274	-	-	0.11	0.058	0.074
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 2	DSI 9	132322	1745	18.95	20.00	1.274	-	-	-0.06	0.080	0.102
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	132322	1745	18.95	20.00	1.274	-	-	-0.08	0.639	0.814
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	132072	1720	18.84	20.00	1.306	-	-	0.04	0.563	0.735
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	132572	1770	18.80	20.00	1.318	-	-	0.05	0.660	0.870
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	DSI 9	132322	1745	18.92	20.00	1.282	-	-	-0.11	0.633	0.812
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 9	132322	1745	21.02	22.00	1.253	-	-	0.04	0.446	0.559
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	132322	1745	21.02	22.00	1.253	-	-	-0.12	0.697	0.873
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	132322	1745	21.02	22.00	1.253	-	-	-0.1	0.735	0.921
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	DSI 9	132322	1745	21.02	22.00	1.253	-	-	-0.14	0.137	0.172
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	132072	1720	20.80	22.00	1.318	-	-	0.02	0.610	0.804
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	132572	1770	20.88	22.00	1.294	-	-	0.09	0.737	0.954
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	132072	1720	20.80	22.00	1.318	-	-	-0.01	0.634	0.836
33	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	132572	1770	20.88	22.00	1.294	-	-	-0.09	0.761	0.985
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 9	132322	1745	20.97	22.00	1.268	-	-	-0.16	0.434	0.550
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	132322	1745	20.97	22.00	1.268	-	-	-0.12	0.678	0.859
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	132322	1745	20.97	22.00	1.268	-	-	0.12	0.715	0.906
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	DSI 9	132322	1745	20.97	22.00	1.268	-	-	0.03	0.134	0.170
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	132072	1720	20.77	22.00	1.327	-	-	-0.01	0.602	0.799
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	132572	1770	20.85	22.00	1.303	-	-	0.01	0.719	0.937
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	132072	1720	20.77	22.00	1.327	-	-	-0.09	0.617	0.819
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	132572	1770	20.85	22.00	1.303	-	-	-0.09	0.740	0.964
	LTE Band 66	20M	QPSK	100	0	-	Back	10mm	Ant 3	DSI 9	132322	1745	20.95	22.00	1.274	-	-	0.06	0.669	0.852
	LTE Band 66	20M	QPSK	100	0	-	Left Side	10mm	Ant 3	DSI 9	132322	1745	20.95	22.00	1.274	-	-	-0.03	0.697	0.888
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 9	132322	1745	20.08	21.00	1.236	-	-	0.02	0.274	0.339
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	132322	1745	20.08	21.00	1.236	-	-	-0.12	0.429	0.530
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 9	132322	1745	20.08	21.00	1.236	-	-	0.03	0.118	0.146
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	132322	1745	20.08	21.00	1.236	-	-	-0.08	0.668	0.826
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	132072	1720	19.88	21.00	1.294	-	-	0.1	0.611	0.791
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	132572	1770	20.00	21.00	1.259	-	-	0.04	0.705	0.888
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 9	132322	1745	20.06	21.00	1.242	-	-	0.01	0.267	0.332
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	132322	1745	20.06	21.00	1.242	-	-	0.11	0.417	0.518
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 9	132322	1745	20.06	21.00	1.242	-	-	-0.07	0.115	0.143
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	132322	1745	20.06	21.00	1.242	-	-	0.13	0.650	0.807
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	132072	1720	19.82	21.00	1.312	-	-	0.05	0.594	0.779
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	132572	1770	19.95	21.00	1.274	-	-	-0.16	0.686	0.874
	LTE Band 66	20M	QPSK	100	0	-	Top Side	10mm	Ant 4	DSI 9	132322	1745	20.02	21.00	1.253	-	-	-0.02	0.644	0.807
	FR1 n66	30M	QPSK	1	1	DFT-15	Front	10mm	Ant 2	DSI 9	349000	1745	19.60	20.50	1.230	-	-	0.01	0.397	0.488
	FR1 n66	30M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI 9	349000	1745	19.60	20.50	1.230	-	-	0.02	0.516	0.635
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 2	DSI 9	349000	1745	19.60	20.50	1.230	-	-	0.14	0.071	0.087
	FR1 n66	30M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 2	DSI 9	349000	1745	19.60	20.50	1.230	-	-	-0.12	0.085	0.105
	FR1 n66	30M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	349000	1745	19.60	20.50	1.230	-	-	-0.05	0.728	0.896
	FR1 n66	30M	QPSK	36	21	DFT-15	Front	10mm	Ant 2	DSI 9	349000	1745	19.59	20.50	1.233	-	-	-0.16	0.374	0.461
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	10mm	Ant 2	DSI 9	349000	1745	19.59	20.50	1.233	-	-	0.04	0.486	0.599
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Side	10mm	Ant 2	DSI 9	349000	1745	19.59	20.50	1.233	-	-	0.06	0.069	0.085
	FR1 n66	30M	QPSK	36	21	DFT-15	Right Side	10mm	Ant 2	DSI 9	349000	1745	19.59	20.50	1.233	-	-	0.01	0.084	0.104
	FR1 n66	30M	QPSK	36	21	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	349000	1745	19.59	20.50	1.233	-	-	0.04	0.676	0.834
	FR1 n66	30M	QPSK	75	0	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	349000	1745	19.56	20.50	1.242	-	-	0.13	0.642	0.797
	FR1 n66	30M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI 9	349000	1745	22.19	23.00	1.205	-	-	0.1	0.420	0.506
	FR1 n66	30M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI 9	349000	1745	22.19	23.00	1.205	-	-	-0.05	0.699	0.842



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34	FR1 n66	30M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 9	349000	1745	22.19	23.00	1.205	-	-	0.08	0.761	0.917
	FR1 n66	30M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 3	DSI 9	349000	1745	22.19	23.00	1.205	-	-	0.12	0.142	0.171
	FR1 n66	30M	QPSK	36	21	DFT-15	Front	10mm	Ant 3	DSI 9	349000	1745	22.13	23.00	1.222	-	-	0.13	0.406	0.496
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	10mm	Ant 3	DSI 9	349000	1745	22.13	23.00	1.222	-	-	0.04	0.653	0.798
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Side	10mm	Ant 3	DSI 9	349000	1745	22.13	23.00	1.222	-	-	0	0.720	0.880
	FR1 n66	30M	QPSK	36	21	DFT-15	Top Side	10mm	Ant 3	DSI 9	349000	1745	22.13	23.00	1.222	-	-	0.08	0.137	0.167
	FR1 n66	30M	QPSK	75	0	DFT-15	Back	10mm	Ant 3	DSI 9	349000	1745	22.11	23.00	1.227	-	-	-0.08	0.661	0.811
	FR1 n66	30M	QPSK	75	0	DFT-15	Left Side	10mm	Ant 3	DSI 9	349000	1745	22.11	23.00	1.227	-	-	-0.11	0.720	0.884
	FR1 n66	30M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	DSI 9	349000	1745	21.65	22.00	1.084	-	-	0.13	0.376	0.408
	FR1 n66	30M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	DSI 9	349000	1745	21.65	22.00	1.084	-	-	0.06	0.550	0.596
	FR1 n66	30M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	DSI 9	349000	1745	21.65	22.00	1.084	-	-	-0.08	0.236	0.256
	FR1 n66	30M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 9	349000	1745	21.65	22.00	1.084	-	-	-0.1	0.800	0.867
	FR1 n66	30M	QPSK	36	21	DFT-15	Front	10mm	Ant 4	DSI 9	349000	1745	21.62	22.00	1.091	-	-	0.15	0.352	0.384
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	10mm	Ant 4	DSI 9	349000	1745	21.62	22.00	1.091	-	-	-0.04	0.518	0.565
	FR1 n66	30M	QPSK	36	21	DFT-15	Left Side	10mm	Ant 4	DSI 9	349000	1745	21.62	22.00	1.091	-	-	-0.16	0.231	0.252
	FR1 n66	30M	QPSK	36	21	DFT-15	Top Side	10mm	Ant 4	DSI 9	349000	1745	21.62	22.00	1.091	-	-	-0.08	0.775	0.846
	FR1 n66	30M	QPSK	75	0	DFT-15	Top Side	10mm	Ant 4	DSI 9	349000	1745	21.58	22.00	1.102	-	-	-0.01	0.763	0.840
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 2	DSI 9	810	1909.8	22.05	23.50	1.396	-	-	-0.09	0.250	0.349
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 2	DSI 9	810	1909.8	22.05	23.50	1.396	-	-	-0.06	0.408	0.570
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 2	DSI 9	810	1909.8	22.05	23.50	1.396	-	-	0.11	0.047	0.066
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Right Side	10mm	Ant 2	DSI 9	810	1909.8	22.05	23.50	1.396	-	-	0.16	0.076	0.106
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	DSI 9	810	1909.8	22.05	23.50	1.396	-	-	-0.05	0.615	0.859
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	DSI 9	512	1850.2	21.86	23.50	1.459	-	-	0.16	0.654	0.954
35	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	10mm	Ant 2	DSI 9	661	1880	21.80	23.50	1.479	-	-	-0.07	0.666	0.985
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 3	DSI 9	810	1909.8	23.35	24.50	1.303	-	-	-0.06	0.216	0.281
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 3	DSI 9	810	1909.8	23.35	24.50	1.303	-	-	0.11	0.297	0.387
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 3	DSI 9	810	1909.8	23.35	24.50	1.303	-	-	-0.14	0.540	0.704
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 3	DSI 9	810	1909.8	23.35	24.50	1.303	-	-	0.01	0.066	0.086
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	10mm	Ant 4	DSI 9	810	1909.8	23.12	24.50	1.374	-	-	0.15	0.227	0.312
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	10mm	Ant 4	DSI 9	810	1909.8	23.12	24.50	1.374	-	-	-0.09	0.356	0.489
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Left Side	10mm	Ant 4	DSI 9	810	1909.8	23.12	24.50	1.374	-	-	0.07	0.125	0.172
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 4	DSI 9	810	1909.8	23.12	24.50	1.374	-	-	0.13	0.590	0.811
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 4	DSI 9	512	1850.2	22.86	24.50	1.459	-	-	-0.05	0.632	0.922
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Top Side	10mm	Ant 4	DSI 9	661	1880	22.71	24.50	1.510	-	-	0.05	0.600	0.906
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 2	DSI 9	9400	1880	19.80	20.50	1.175	-	-	-0.05	0.295	0.347
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 2	DSI 9	9400	1880	19.80	20.50	1.175	-	-	-0.15	0.472	0.555
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 2	DSI 9	9400	1880	19.80	20.50	1.175	-	-	-0.07	0.059	0.069
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 2	DSI 9	9400	1880	19.80	20.50	1.175	-	-	-0.03	0.077	0.090
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 9	9400	1880	19.80	20.50	1.175	-	-	-0.14	0.713	0.838
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 9	9262	1852.4	19.77	20.50	1.183	-	-	-0.07	0.731	0.865
36	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 2	DSI 9	9538	1907.6	19.72	20.50	1.197	-	-	0.17	0.766	0.917
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 3	DSI 9	9400	1880	20.60	21.50	1.230	-	-	-0.14	0.243	0.299
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 3	DSI 9	9400	1880	20.60	21.50	1.230	-	-	0.02	0.365	0.449
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 9	9400	1880	20.60	21.50	1.230	-	-	-0.03	0.653	0.803
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 3	DSI 9	9400	1880	20.60	21.50	1.230	-	-	-0.15	0.074	0.091
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 9	9262	1852.4	20.50	21.50	1.259	-	-	-0.03	0.727	0.915
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 3	DSI 9	9538	1907.6	20.48	21.50	1.265	-	-	0.05	0.626	0.792
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 4	DSI 9	9400	1880	19.32	20.50	1.312	-	-	-0.13	0.219	0.287
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 4	DSI 9	9400	1880	19.32	20.50	1.312	-	-	0.02	0.337	0.442
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 4	DSI 9	9400	1880	19.32	20.50	1.312	-	-	0.12	0.139	0.182
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 9	9400	1880	19.32	20.50	1.312	-	-	-0.08	0.612	0.803
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 9	9262	1852.4	19.27	20.50	1.327	-	-	-0.08	0.675	0.896
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 4	DSI 9	9538	1907.6	19.25	20.50	1.334	-	-	0.07	0.542	0.723
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 9	18900	1880	19.59	20.50	1.233	-	-	0.09	0.276	0.340
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	18900	1880	19.59	20.50	1.233	-	-	-0.12	0.450	0.555



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	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 9	18900	1880	19.59	20.50	1.233	-	-	0.02	0.054	0.067
	LTE Band 2	20M	QPSK	1	0	-	Right Side	10mm	Ant 2	DSI 9	18900	1880	19.59	20.50	1.233	-	-	0.08	0.079	0.097
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	18900	1880	19.59	20.50	1.233	-	-	-0.11	0.661	0.815
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	18700	1860	19.50	20.50	1.259	-	-	-0.08	0.680	0.856
	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	19100	1900	19.43	20.50	1.279	-	-	0.1	0.683	0.874
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 9	18900	1880	19.55	20.50	1.245	-	-	0.04	0.268	0.334
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	18900	1880	19.55	20.50	1.245	-	-	-0.14	0.438	0.545
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 9	18900	1880	19.55	20.50	1.245	-	-	-0.09	0.053	0.066
	LTE Band 2	20M	QPSK	50	0	-	Right Side	10mm	Ant 2	DSI 9	18900	1880	19.55	20.50	1.245	-	-	-0.12	0.077	0.096
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	18900	1880	19.55	20.50	1.245	-	-	-0.15	0.651	0.810
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	18700	1860	19.47	20.50	1.268	-	-	-0.11	0.661	0.838
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	19100	1900	19.40	20.50	1.288	-	-	0.05	0.664	0.855
	LTE Band 2	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 2	DSI 9	18900	1880	19.53	20.50	1.250	-	-	0.14	0.637	0.796
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 9	18900	1880	20.38	21.50	1.294	-	-	0.12	0.215	0.278
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	18900	1880	20.38	21.50	1.294	-	-	-0.13	0.347	0.449
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	18900	1880	20.38	21.50	1.294	-	-	-0.07	0.626	0.810
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	DSI 9	18900	1880	20.38	21.50	1.294	-	-	0.11	0.086	0.111
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	18700	1860	20.33	21.50	1.309	-	-	0.12	0.663	0.868
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	19100	1900	20.25	21.50	1.334	-	-	0.13	0.562	0.749
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 9	18900	1880	20.35	21.50	1.303	-	-	0.14	0.209	0.272
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	18900	1880	20.35	21.50	1.303	-	-	0.14	0.338	0.440
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	18900	1880	20.35	21.50	1.303	-	-	-0.11	0.616	0.803
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	DSI 9	18900	1880	20.35	21.50	1.303	-	-	0.06	0.084	0.109
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	18700	1860	20.30	21.50	1.318	-	-	0.16	0.645	0.850
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	19100	1900	20.22	21.50	1.343	-	-	0.14	0.547	0.734
	LTE Band 2	20M	QPSK	100	0	-	Left Side	10mm	Ant 3	DSI 9	18900	1880	20.25	21.50	1.334	-	-	0	0.617	0.823
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 9	18900	1880	19.68	21.00	1.355	-	-	0.1	0.225	0.305
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	18900	1880	19.68	21.00	1.355	-	-	-0.05	0.343	0.465
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 9	18900	1880	19.68	21.00	1.355	-	-	0.13	0.135	0.183
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	18900	1880	19.68	21.00	1.355	-	-	-0.08	0.605	0.820
37	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	18700	1860	19.60	21.00	1.380	-	-	0.16	0.666	0.919
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	19100	1900	19.66	21.00	1.361	-	-	0	0.546	0.743
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 9	18900	1880	19.64	21.00	1.368	-	-	0.13	0.219	0.300
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	18900	1880	19.64	21.00	1.368	-	-	-0.16	0.334	0.457
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 9	18900	1880	19.64	21.00	1.368	-	-	0.13	0.131	0.179
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	18900	1880	19.64	21.00	1.368	-	-	0.14	0.589	0.806
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	18700	1860	19.58	21.00	1.387	-	-	0.14	0.648	0.899
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	19100	1900	19.62	21.00	1.374	-	-	0.09	0.531	0.730
	LTE Band 2	20M	QPSK	100	0	-	Top Side	10mm	Ant 4	DSI 9	18900	1880	19.61	21.00	1.377	-	-	-0.08	0.581	0.800
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 2	DSI 9	376000	1880	18.95	20.00	1.274	-	-	-0.06	0.269	0.343
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI 9	376000	1880	18.95	20.00	1.274	-	-	0.06	0.463	0.590
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 2	DSI 9	376000	1880	18.95	20.00	1.274	-	-	0.1	0.058	0.074
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 2	DSI 9	376000	1880	18.95	20.00	1.274	-	-	-0.09	0.077	0.098
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	376000	1880	18.95	20.00	1.274	-	-	0.07	0.685	0.872
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	372000	1860	18.90	20.00	1.288	-	-	-0.11	0.667	0.859
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	380000	1900	18.88	20.00	1.294	-	-	0.06	0.672	0.870
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 2	DSI 9	376000	1880	18.88	20.00	1.294	-	-	0.11	0.278	0.360
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 2	DSI 9	376000	1880	18.88	20.00	1.294	-	-	-0.03	0.462	0.598
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 2	DSI 9	376000	1880	18.88	20.00	1.294	-	-	-0.08	0.063	0.082
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 2	DSI 9	376000	1880	18.88	20.00	1.294	-	-	0.07	0.079	0.102
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	376000	1880	18.88	20.00	1.294	-	-	0.06	0.692	0.896
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	372000	1860	18.86	20.00	1.300	-	-	-0.12	0.686	0.892
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	380000	1900	18.84	20.00	1.306	-	-	0.03	0.704	0.920
	FR1 n2	20M	QPSK	100	0	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	376000	1880	18.86	20.00	1.300	-	-	0.06	0.673	0.875
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI 9	376000	1880	21.00	22.00	1.259	-	-	0.03	0.251	0.316
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI 9	376000	1880	21.00	22.00	1.259	-	-	-0.01	0.370	0.466



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	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 9	376000	1880	21.00	22.00	1.259	-	-	0.13	0.636	0.801
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 3	DSI 9	376000	1880	21.00	22.00	1.259	-	-	-0.15	0.089	0.112
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 9	372000	1860	20.90	22.00	1.288	-	-	-0.15	0.697	0.898
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 9	380000	1900	20.93	22.00	1.279	-	-	-0.09	0.601	0.769
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 3	DSI 9	376000	1880	20.98	22.00	1.265	-	-	0.09	0.258	0.326
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 3	DSI 9	376000	1880	20.98	22.00	1.265	-	-	-0.06	0.380	0.481
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 3	DSI 9	376000	1880	20.98	22.00	1.265	-	-	0.05	0.642	0.812
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 3	DSI 9	376000	1880	20.98	22.00	1.265	-	-	0.08	0.092	0.116
38	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 3	DSI 9	372000	1860	20.85	22.00	1.303	-	-	-0.14	0.717	0.934
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 3	DSI 9	380000	1900	20.88	22.00	1.294	-	-	0.08	0.618	0.800
	FR1 n2	20M	QPSK	100	0	DFT-15	Left Side	10mm	Ant 3	DSI 9	376000	1880	20.96	22.00	1.271	-	-	-0.08	0.608	0.773
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	DSI 9	376000	1880	18.69	20.00	1.352	-	-	-0.14	0.207	0.280
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	DSI 9	376000	1880	18.69	20.00	1.352	-	-	-0.02	0.326	0.441
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	DSI 9	376000	1880	18.69	20.00	1.352	-	-	-0.03	0.136	0.184
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 9	376000	1880	18.69	20.00	1.352	-	-	-0.09	0.616	0.833
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 9	372000	1860	18.66	20.00	1.361	-	-	-0.1	0.610	0.830
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 9	380000	1900	18.63	20.00	1.371	-	-	-0.12	0.543	0.744
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 4	DSI 9	376000	1880	18.67	20.00	1.358	-	-	0.06	0.186	0.253
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 4	DSI 9	376000	1880	18.67	20.00	1.358	-	-	-0.06	0.306	0.416
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 4	DSI 9	376000	1880	18.67	20.00	1.358	-	-	0.11	0.128	0.174
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 4	DSI 9	376000	1880	18.67	20.00	1.358	-	-	-0.06	0.623	0.846
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 4	DSI 9	372000	1860	18.60	20.00	1.380	-	-	0.02	0.643	0.888
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 4	DSI 9	380000	1900	18.61	20.00	1.377	-	-	-0.03	0.551	0.759
	FR1 n2	20M	QPSK	100	0	DFT-15	Top Side	10mm	Ant 4	DSI 9	376000	1880	18.65	20.00	1.365	-	-	0.14	0.602	0.821
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 9	21100	2535	22.30	23.00	1.175	-	-	-0.15	0.352	0.414
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	21100	2535	22.30	23.00	1.175	-	-	-0.06	0.740	0.869
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 9	21100	2535	22.30	23.00	1.175	-	-	-0.08	0.093	0.109
	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 2	DSI 9	21100	2535	22.30	23.00	1.175	-	-	0.03	0.268	0.315
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	21100	2535	22.30	23.00	1.175	-	-	0.03	0.371	0.436
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	20850	2510	22.25	23.00	1.189	-	-	0.06	0.760	0.903
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	21350	2560	22.22	23.00	1.197	-	-	-0.02	0.734	0.878
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 9	21100	2535	22.29	23.00	1.178	-	-	0.11	0.342	0.403
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	21100	2535	22.29	23.00	1.178	-	-	-0.05	0.720	0.848
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 9	21100	2535	22.29	23.00	1.178	-	-	0	0.090	0.106
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 2	DSI 9	21100	2535	22.29	23.00	1.178	-	-	-0.13	0.261	0.307
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	21100	2535	22.29	23.00	1.178	-	-	0	0.361	0.425
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	20850	2510	22.21	23.00	1.199	-	-	-0.15	0.739	0.886
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	21350	2560	22.20	23.00	1.202	-	-	0.15	0.714	0.858
	LTE Band 7	20M	QPSK	100	0	-	Back	10mm	Ant 2	DSI 9	21100	2535	22.25	23.00	1.189	-	-	-0.11	0.706	0.839
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 9	21100	2535	18.25	19.00	1.189	-	-	-0.12	0.313	0.372
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	21100	2535	18.25	19.00	1.189	-	-	0.14	0.452	0.537
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	21100	2535	18.25	19.00	1.189	-	-	0.07	0.734	0.872
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	DSI 9	21100	2535	18.25	19.00	1.189	-	-	0.08	0.089	0.106
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	20850	2510	18.15	19.00	1.216	-	-	-0.04	0.702	0.854
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	21350	2560	18.18	19.00	1.208	-	-	-0.12	0.675	0.815
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 9	21100	2535	18.24	19.00	1.191	-	-	0.16	0.302	0.360
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	21100	2535	18.24	19.00	1.191	-	-	0.02	0.439	0.523
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	21100	2535	18.24	19.00	1.191	-	-	0.1	0.706	0.841
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	DSI 9	21100	2535	18.24	19.00	1.191	-	-	-0.12	0.084	0.100
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	20850	2510	18.10	19.00	1.230	-	-	0.16	0.678	0.834
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	21350	2560	18.16	19.00	1.213	-	-	0.1	0.663	0.804
	LTE Band 7	20M	QPSK	100	0	-	Left Side	10mm	Ant 3	DSI 9	21100	2535	18.20	19.00	1.202	-	-	-0.09	0.681	0.819
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 9	21100	2535	19.70	20.00	1.072	-	-	0.01	0.362	0.388
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	21100	2535	19.70	20.00	1.072	-	-	-0.05	0.705	0.755
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 9	21100	2535	19.70	20.00	1.072	-	-	0.05	0.195	0.209



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39	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	21100	2535	19.70	20.00	1.072	-	-	-0.07	0.856	0.917
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	20850	2510	19.66	20.00	1.081	-	-	0.07	0.626	0.677
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	21350	2560	19.62	20.00	1.091	-	-	-0.11	0.719	0.785
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 9	21100	2535	19.65	20.00	1.084	-	-	0.09	0.352	0.382
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	21100	2535	19.65	20.00	1.084	-	-	-0.06	0.686	0.744
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 9	21100	2535	19.65	20.00	1.084	-	-	-0.02	0.190	0.206
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	21100	2535	19.65	20.00	1.084	-	-	-0.04	0.833	0.903
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	20850	2510	19.63	20.00	1.089	-	-	0.02	0.609	0.663
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	21350	2560	19.58	20.00	1.102	-	-	0.04	0.699	0.770
	LTE Band 7	20M	QPSK	100	0	-	Top Side	10mm	Ant 4	DSI 9	21100	2535	19.56	20.00	1.107	-	-	-0.16	0.801	0.886
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 2	DSI 9	39750	2506	23.40	24.00	1.148	62.9	1.006	0.08	0.303	0.350
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	39750	2506	23.40	24.00	1.148	62.9	1.006	0.07	0.646	0.746
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 2	DSI 9	39750	2506	23.40	24.00	1.148	62.9	1.006	0.1	0.061	0.070
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 2	DSI 9	39750	2506	23.40	24.00	1.148	62.9	1.006	-0.01	0.243	0.281
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 2	DSI 9	39750	2506	23.40	24.00	1.148	62.9	1.006	0.14	0.324	0.374
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	40185	2549.5	23.25	24.00	1.189	62.9	1.006	-0.11	0.621	0.742
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	40620	2593	23.10	24.00	1.230	62.9	1.006	0.06	0.645	0.798
40	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	41055	2636.5	23.08	24.00	1.236	62.9	1.006	0.1	0.690	0.858
	LTE Band 41C	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	41055+40857	2636.5+2616.7	22.91	24.00	1.285	62.9	1.006	0.01	0.633	0.818
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 2	DSI 9	41490	2680	23.12	24.00	1.225	62.9	1.006	-0.09	0.616	0.759
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 2	DSI 9	39750	2506	22.92	23.50	1.143	62.9	1.006	-0.15	0.295	0.339
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	39750	2506	22.92	23.50	1.143	62.9	1.006	0.07	0.628	0.722
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 2	DSI 9	39750	2506	22.92	23.50	1.143	62.9	1.006	-0.1	0.059	0.068
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 2	DSI 9	39750	2506	22.92	23.50	1.143	62.9	1.006	-0.07	0.236	0.271
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 2	DSI 9	39750	2506	22.92	23.50	1.143	62.9	1.006	0.05	0.315	0.362
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	40185	2549.5	22.90	23.50	1.148	62.9	1.006	0.16	0.604	0.698
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	40620	2593	22.50	23.50	1.259	62.9	1.006	-0.1	0.627	0.794
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	41055	2636.5	22.45	23.50	1.274	62.9	1.006	-0.12	0.671	0.845
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 2	DSI 9	41490	2680	22.45	23.50	1.274	62.9	1.006	0.08	0.599	0.767
	LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 2	DSI 9	39750	2506	22.89	23.50	1.151	62.9	1.006	0.16	0.606	0.702
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 3	DSI 9	39750	2506	20.80	21.00	1.047	62.9	1.006	0.02	0.364	0.383
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	39750	2506	20.80	21.00	1.047	62.9	1.006	0	0.579	0.610
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	39750	2506	20.80	21.00	1.047	62.9	1.006	-0.11	0.693	0.730
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 3	DSI 9	39750	2506	20.80	21.00	1.047	62.9	1.006	0.03	0.151	0.159
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	40185	2549.5	20.60	21.00	1.096	62.9	1.006	0.09	0.511	0.564
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	40620	2593	20.66	21.00	1.081	62.9	1.006	0.01	0.567	0.617
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	41055	2636.5	20.77	21.00	1.054	62.9	1.006	-0.14	0.676	0.717
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 3	DSI 9	41490	2680	20.52	21.00	1.117	62.9	1.006	0.14	0.557	0.626
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	40185	2549.5	20.60	21.00	1.096	62.9	1.006	-0.15	0.587	0.647
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	40620	2593	20.66	21.00	1.081	62.9	1.006	0.02	0.651	0.708
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	41055	2636.5	20.77	21.00	1.054	62.9	1.006	-0.16	0.776	0.823
	LTE Band 41C	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	41055+40857	2636.5+2616.7	20.52	21.00	1.117	62.9	1.006	0.03	0.694	0.780
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 3	DSI 9	41490	2680	20.52	21.00	1.117	62.9	1.006	-0.06	0.639	0.718
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 3	DSI 9	39750	2506	20.77	21.00	1.054	62.9	1.006	-0.1	0.354	0.375
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	39750	2506	20.77	21.00	1.054	62.9	1.006	-0.03	0.568	0.602
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	39750	2506	20.77	21.00	1.054	62.9	1.006	0.16	0.674	0.715
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 3	DSI 9	39750	2506	20.77	21.00	1.054	62.9	1.006	0	0.147	0.156
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	40185	2549.5	20.59	21.00	1.099	62.9	1.006	0.05	0.497	0.549
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	40620	2593	20.64	21.00	1.086	62.9	1.006	-0.02	0.552	0.603
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	41055	2636.5	20.75	21.00	1.059	62.9	1.006	-0.16	0.658	0.701
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 3	DSI 9	41490	2680	20.50	21.00	1.122	62.9	1.006	-0.07	0.542	0.612
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	40185	2549.5	20.59	21.00	1.099	62.9	1.006	-0.08	0.571	0.631
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	40620	2593	20.64	21.00	1.086	62.9	1.006	0.11	0.633	0.692
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	41055	2636.5	20.75	21.00	1.059	62.9	1.006	-0.02	0.755	0.805
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 3	DSI 9	41490	2680	20.50	21.00	1.122	62.9	1.006	-0.03	0.622	0.702



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	LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 3	DSI 9	39750	2506	20.73	21.00	1.064	62.9	1.006	-0.05	0.542	0.580
	LTE Band 41	20M	QPSK	100	0	-	Left Side	10mm	Ant 3	DSI 9	39750	2506	20.73	21.00	1.064	62.9	1.006	-0.14	0.637	0.682
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 4	DSI 9	39750	2506	20.78	21.00	1.052	62.9	1.006	0	0.280	0.296
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	39750	2506	20.78	21.00	1.052	62.9	1.006	-0.09	0.581	0.615
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 4	DSI 9	39750	2506	20.78	21.00	1.052	62.9	1.006	0.06	0.197	0.208
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	39750	2506	20.78	21.00	1.052	62.9	1.006	-0.06	0.631	0.668
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	40185	2549.5	20.72	21.00	1.067	62.9	1.006	0.01	0.458	0.491
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	40620	2593	20.70	21.00	1.072	62.9	1.006	0.02	0.560	0.604
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	41055	2636.5	20.66	21.00	1.081	62.9	1.006	-0.16	0.587	0.639
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 4	DSI 9	41490	2680	20.50	21.00	1.122	62.9	1.006	-0.12	0.611	0.690
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	40185	2549.5	20.72	21.00	1.067	62.9	1.006	0.01	0.526	0.564
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	40620	2593	20.70	21.00	1.072	62.9	1.006	-0.15	0.643	0.693
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	41055	2636.5	20.66	21.00	1.081	62.9	1.006	0.05	0.674	0.733
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	41490	2680	20.50	21.00	1.122	62.9	1.006	-0.16	0.702	0.792
	LTE Band 41C	20M	QPSK	1	0	-	Top Side	10mm	Ant 4	DSI 9	41490+ 41292	2680+ 2660.2	20.40	21.00	1.148	62.9	1.006	0.01	0.675	0.780
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 4	DSI 9	39750	2506	20.76	21.00	1.057	62.9	1.006	-0.14	0.272	0.289
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	39750	2506	20.76	21.00	1.057	62.9	1.006	-0.09	0.570	0.606
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 4	DSI 9	39750	2506	20.76	21.00	1.057	62.9	1.006	0.08	0.192	0.204
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	39750	2506	20.76	21.00	1.057	62.9	1.006	-0.03	0.606	0.644
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	40185	2549.5	20.70	21.00	1.072	62.9	1.006	0.09	0.446	0.481
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	40620	2593	20.69	21.00	1.074	62.9	1.006	0.16	0.545	0.589
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	41055	2636.5	20.65	21.00	1.084	62.9	1.006	0.08	0.571	0.623
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 4	DSI 9	41490	2680	20.47	21.00	1.130	62.9	1.006	-0.04	0.594	0.675
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	40185	2549.5	20.70	21.00	1.072	62.9	1.006	0	0.512	0.552
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	40620	2593	20.69	21.00	1.074	62.9	1.006	0.02	0.625	0.675
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	41055	2636.5	20.65	21.00	1.084	62.9	1.006	0.09	0.656	0.715
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 4	DSI 9	41490	2680	20.47	21.00	1.130	62.9	1.006	0.06	0.683	0.776
	LTE Band 41	20M	QPSK	100	0	-	Back	10mm	Ant 4	DSI 9	39750	2506	20.67	21.00	1.079	62.9	1.006	-0.13	0.529	0.574
	LTE Band 41	20M	QPSK	100	0	-	Top Side	10mm	Ant 4	DSI 9	39750	2506	20.67	21.00	1.079	62.9	1.006	-0.16	0.574	0.623
	FR1 n7	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 2	DSI 9	507000	2535	21.84	22.50	1.164	-	-	-0.14	0.361	0.420
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI 9	507000	2535	21.84	22.50	1.164	-	-	-0.05	0.763	0.888
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 2	DSI 9	507000	2535	21.84	22.50	1.164	-	-	-0.05	0.107	0.125
	FR1 n7	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 2	DSI 9	507000	2535	21.84	22.50	1.164	-	-	0.11	0.257	0.299
	FR1 n7	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	507000	2535	21.84	22.50	1.164	-	-	-0.14	0.385	0.448
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI 9	502000	2510	21.77	22.50	1.183	-	-	0.12	0.707	0.836
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 2	DSI 9	512000	2560	21.80	22.50	1.175	-	-	0.04	0.681	0.800
	FR1 n7	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 2	DSI 9	507000	2535	21.80	22.50	1.175	-	-	0.13	0.349	0.410
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 2	DSI 9	507000	2535	21.80	22.50	1.175	-	-	0.06	0.715	0.840
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 2	DSI 9	507000	2535	21.80	22.50	1.175	-	-	0.15	0.101	0.119
	FR1 n7	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 2	DSI 9	507000	2535	21.80	22.50	1.175	-	-	-0.16	0.254	0.298
	FR1 n7	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 2	DSI 9	507000	2535	21.80	22.50	1.175	-	-	-0.1	0.366	0.430
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 2	DSI 9	502000	2510	21.76	22.50	1.186	-	-	-0.15	0.681	0.808
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 2	DSI 9	512000	2560	21.76	22.50	1.186	-	-	0.1	0.628	0.745
	FR1 n7	20M	QPSK	100	0	DFT-15	Back	10mm	Ant 2	DSI 9	507000	2535	21.77	22.50	1.183	-	-	-0.12	0.746	0.883
	FR1 n7	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 3	DSI 9	507000	2535	20.09	20.50	1.099	-	-	-0.09	0.371	0.408
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 3	DSI 9	507000	2535	20.09	20.50	1.099	-	-	0.15	0.537	0.590
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 9	507000	2535	20.09	20.50	1.099	-	-	0.06	0.776	0.853
	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 3	DSI 9	507000	2535	20.09	20.50	1.099	-	-	0.11	0.108	0.119
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 9	502000	2510	20.02	20.50	1.117	-	-	0.07	0.746	0.833
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 3	DSI 9	512000	2560	20.05	20.50	1.109	-	-	0.14	0.808	0.896
	FR1 n7	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 3	DSI 9	507000	2535	20.02	20.50	1.117	-	-	-0.09	0.390	0.436
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 3	DSI 9	507000	2535	20.02	20.50	1.117	-	-	-0.03	0.605	0.676
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 3	DSI 9	507000	2535	20.02	20.50	1.117	-	-	0.01	0.792	0.885
	FR1 n7	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 3	DSI 9	507000	2535	20.02	20.50	1.117	-	-	0	0.114	0.127
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 3	DSI 9	502000	2510	20.00	20.50	1.122	-	-	-0.14	0.813	0.912
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 3	DSI 9	512000	2560	19.97	20.50	1.130	-	-	0.03	0.823	0.930



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	FR1 n7	20M	QPSK	100	0	DFT-15	Left Side	10mm	Ant 3	DSI 9	507000	2535	20.00	20.50	1.122	-	-	0.1	0.773	0.867
	FR1 n7	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 4	DSI 9	507000	2535	18.47	19.00	1.130	-	-	0.13	0.377	0.426
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	DSI 9	507000	2535	18.47	19.00	1.130	-	-	0	0.732	0.827
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 4	DSI 9	507000	2535	18.47	19.00	1.130	-	-	0.15	0.260	0.294
41	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 9	507000	2535	18.47	19.00	1.130	-	-	-0.14	0.832	0.940
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	DSI 9	502000	2510	18.38	19.00	1.153	-	-	-0.08	0.563	0.649
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 4	DSI 9	512000	2560	18.42	19.00	1.143	-	-	0.1	0.685	0.783
	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 9	502000	2510	18.38	19.00	1.153	-	-	0.03	0.646	0.745
	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 4	DSI 9	512000	2560	18.42	19.00	1.143	-	-	0.05	0.786	0.898
	FR1 n7	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 4	DSI 9	507000	2535	18.46	19.00	1.132	-	-	0.09	0.357	0.404
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 4	DSI 9	507000	2535	18.46	19.00	1.132	-	-	0.12	0.715	0.810
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 4	DSI 9	507000	2535	18.46	19.00	1.132	-	-	-0.03	0.249	0.282
	FR1 n7	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 4	DSI 9	507000	2535	18.46	19.00	1.132	-	-	0.08	0.788	0.892
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 4	DSI 9	502000	2510	18.31	19.00	1.172	-	-	0.1	0.551	0.646
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 4	DSI 9	512000	2560	18.39	19.00	1.151	-	-	0.01	0.672	0.773
	FR1 n7	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 4	DSI 9	502000	2510	18.31	19.00	1.172	-	-	0.07	0.623	0.730
	FR1 n7	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 4	DSI 9	512000	2560	18.39	19.00	1.151	-	-	-0.01	0.756	0.870
	FR1 n7	20M	QPSK	100	0	DFT-15	Back	10mm	Ant 4	DSI 9	507000	2535	18.39	19.00	1.151	-	-	0.01	0.707	0.814
	FR1 n7	20M	QPSK	100	0	DFT-15	Top Side	10mm	Ant 4	DSI 9	507000	2535	18.39	19.00	1.151	-	-	0.08	0.779	0.896
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 2	DSI 9	518598	2592.99	21.10	22.00	1.230	-	-	-0.16	0.360	0.443
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 2	DSI 9	518598	2592.99	21.10	22.00	1.230	-	-	0.13	0.553	0.680
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 2	DSI 9	518598	2592.99	21.10	22.00	1.230	-	-	0.01	0.081	0.100
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 2	DSI 9	518598	2592.99	21.10	22.00	1.230	-	-	0.14	0.223	0.274
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 2	DSI 9	518598	2592.99	21.10	22.00	1.230	-	-	-0.03	0.391	0.481
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 2	DSI 9	518598	2592.99	20.99	22.00	1.262	-	-	0.12	0.407	0.514
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 2	DSI 9	518598	2592.99	20.99	22.00	1.262	-	-	-0.12	0.712	0.898
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 2	DSI 9	518598	2592.99	20.99	22.00	1.262	-	-	0.09	0.087	0.110
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 2	DSI 9	518598	2592.99	20.99	22.00	1.262	-	-	0.07	0.244	0.308
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 2	DSI 9	518598	2592.99	20.99	22.00	1.262	-	-	0.1	0.423	0.534
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 2	DSI 9	518598	2592.99	21.02	22.00	1.253	-	-	0.03	0.652	0.817
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI 9	518598	2592.99	18.20	19.50	1.349	-	-	0.08	0.302	0.407
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI 9	518598	2592.99	18.20	19.50	1.349	-	-	0.05	0.497	0.670
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 9	518598	2592.99	18.20	19.50	1.349	-	-	-0.11	0.685	0.924
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	DSI 9	518598	2592.99	18.20	19.50	1.349	-	-	0.01	0.104	0.140
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI 9	518598	2592.99	18.18	19.50	1.355	-	-	-0.06	0.321	0.435
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI 9	518598	2592.99	18.18	19.50	1.355	-	-	0.13	0.523	0.709
42	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI 9	518598	2592.99	18.18	19.50	1.355	-	-	-0.05	0.708	0.959
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	DSI 9	518598	2592.99	18.18	19.50	1.355	-	-	-0.12	0.116	0.157
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 3	DSI 9	518598	2592.99	18.15	19.50	1.365	-	-	0.13	0.485	0.662
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	518598	2592.99	18.15	19.50	1.365	-	-	-0.09	0.676	0.922
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	DSI 9	518598	2592.99	18.39	19.50	1.291	-	-	0.02	0.367	0.474
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 9	518598	2592.99	18.39	19.50	1.291	-	-	-0.12	0.711	0.918
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	DSI 9	518598	2592.99	18.39	19.50	1.291	-	-	0.1	0.251	0.324
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 9	518598	2592.99	18.39	19.50	1.291	-	-	0.16	0.722	0.932
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 9	518598	2592.99	18.30	19.50	1.318	-	-	0.06	0.338	0.446
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 9	518598	2592.99	18.30	19.50	1.318	-	-	0.08	0.681	0.898
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 9	518598	2592.99	18.30	19.50	1.318	-	-	-0.08	0.246	0.324
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 9	518598	2592.99	18.30	19.50	1.318	-	-	0.09	0.701	0.924
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 4	DSI 9	518598	2592.99	18.28	19.50	1.324	-	-	0	0.670	0.887
	FR1 n41	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	518598	2592.99	18.28	19.50	1.324	-	-	-0.06	0.691	0.915
3000MHz-4000MHz																				
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	10mm	Ant 3	DSI 9	55830	3609	19.80	20.00	1.047	62.9	1.006	-0.09	0.308	0.324
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 3	DSI 9	55830	3609	19.80	20.00	1.047	62.9	1.006	0.01	0.517	0.545
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	55830	3609	19.80	20.00	1.047	62.9	1.006	0.14	0.676	0.712
	LTE Band 48	20M	QPSK	1	0	DFT-30	Top Side	10mm	Ant 3	DSI 9	55830	3609	19.80	20.00	1.047	62.9	1.006	-0.15	0.222	0.234
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	55340	3560	19.48	20.00	1.127	62.9	1.006	0.07	0.759	0.861



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	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	56150	3641	19.73	20.00	1.064	62.9	1.006	-0.01	0.676	0.724
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	56640	3690	19.70	20.00	1.072	62.9	1.006	-0.11	0.511	0.551
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	10mm	Ant 3	DSI 9	55830	3609	19.77	20.00	1.054	62.9	1.006	0.08	0.317	0.336
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 3	DSI 9	55830	3609	19.77	20.00	1.054	62.9	1.006	0	0.533	0.565
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	55830	3609	19.77	20.00	1.054	62.9	1.006	0.02	0.697	0.739
	LTE Band 48	20M	QPSK	50	0	DFT-30	Top Side	10mm	Ant 3	DSI 9	55830	3609	19.77	20.00	1.054	62.9	1.006	-0.05	0.229	0.243
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	55340	3560	19.45	20.00	1.135	62.9	1.006	0	0.800	0.913
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	56150	3641	19.72	20.00	1.067	62.9	1.006	-0.03	0.697	0.748
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	56640	3690	19.64	20.00	1.086	62.9	1.006	0.07	0.527	0.576
	LTE Band 48	20M	QPSK	100	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	55830	3609	19.74	20.00	1.062	62.9	1.006	-0.09	0.667	0.712
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	10mm	Ant 4	DSI 9	55830	3609	22.20	22.50	1.072	62.9	1.006	0	0.302	0.326
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 4	DSI 9	55830	3609	22.20	22.50	1.072	62.9	1.006	-0.02	0.694	0.748
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	10mm	Ant 4	DSI 9	55830	3609	22.20	22.50	1.072	62.9	1.006	-0.01	0.211	0.227
	LTE Band 48	20M	QPSK	1	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	55830	3609	22.20	22.50	1.072	62.9	1.006	-0.06	0.641	0.691
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 4	DSI 9	55340	3560	22.08	22.50	1.102	62.9	1.006	0.16	0.746	0.827
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 4	DSI 9	56150	3641	22.10	22.50	1.096	62.9	1.006	-0.02	0.675	0.745
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 4	DSI 9	56640	3690	22.12	22.50	1.091	62.9	1.006	0.12	0.669	0.735
	LTE Band 48	20M	QPSK	1	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	55340	3560	22.08	22.50	1.102	62.9	1.006	0.15	0.680	0.754
	LTE Band 48	20M	QPSK	1	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	56150	3641	22.10	22.50	1.096	62.9	1.006	-0.12	0.616	0.679
	LTE Band 48	20M	QPSK	1	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	56640	3690	22.12	22.50	1.091	62.9	1.006	-0.01	0.610	0.670
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	10mm	Ant 4	DSI 9	55830	3609	22.18	22.50	1.076	62.9	1.006	-0.11	0.293	0.317
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 4	DSI 9	55830	3609	22.18	22.50	1.076	62.9	1.006	0.16	0.668	0.723
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	10mm	Ant 4	DSI 9	55830	3609	22.18	22.50	1.076	62.9	1.006	0.04	0.206	0.223
	LTE Band 48	20M	QPSK	50	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	55830	3609	22.18	22.50	1.076	62.9	1.006	-0.01	0.612	0.663
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 4	DSI 9	55340	3560	22.05	22.50	1.109	62.9	1.006	-0.15	0.724	0.808
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 4	DSI 9	56150	3641	22.08	22.50	1.102	62.9	1.006	0.02	0.655	0.726
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 4	DSI 9	56640	3690	22.04	22.50	1.112	62.9	1.006	-0.07	0.641	0.717
	LTE Band 48	20M	QPSK	50	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	55340	3560	22.05	22.50	1.109	62.9	1.006	-0.09	0.658	0.734
	LTE Band 48	20M	QPSK	50	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	56150	3641	22.08	22.50	1.102	62.9	1.006	-0.05	0.606	0.672
	LTE Band 48	20M	QPSK	50	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	56640	3690	22.04	22.50	1.112	62.9	1.006	-0.13	0.589	0.659
	LTE Band 48	20M	QPSK	100	0	DFT-30	Back	10mm	Ant 4	DSI 9	55830	3609	22.15	22.50	1.084	62.9	1.006	0.06	0.642	0.700
	LTE Band 48	20M	QPSK	100	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	55830	3609	22.15	22.50	1.084	62.9	1.006	0.16	0.606	0.661
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	10mm	Ant 5	DSI 9	55830	3609	22.82	23.50	1.169	62.9	1.006	0.12	0.255	0.300
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 5	DSI 9	55830	3609	22.82	23.50	1.169	62.9	1.006	-0.04	0.572	0.673
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Side	10mm	Ant 5	DSI 9	55830	3609	22.82	23.50	1.169	62.9	1.006	0.09	0.234	0.275
	LTE Band 48	20M	QPSK	1	0	DFT-30	Top Side	10mm	Ant 5	DSI 9	55830	3609	22.82	23.50	1.169	62.9	1.006	-0.14	0.402	0.473
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 5	DSI 9	55340	3560	22.65	23.50	1.216	62.9	1.006	0.1	0.530	0.648
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 5	DSI 9	56150	3641	22.67	23.50	1.211	62.9	1.006	-0.16	0.383	0.466
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 5	DSI 9	56640	3690	22.62	23.50	1.225	62.9	1.006	0.13	0.359	0.442
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	10mm	Ant 5	DSI 9	55830	3609	22.01	22.50	1.119	62.9	1.006	0.16	0.246	0.277
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 5	DSI 9	55830	3609	22.01	22.50	1.119	62.9	1.006	-0.07	0.563	0.634
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Side	10mm	Ant 5	DSI 9	55830	3609	22.01	22.50	1.119	62.9	1.006	0.05	0.230	0.259
	LTE Band 48	20M	QPSK	50	0	DFT-30	Top Side	10mm	Ant 5	DSI 9	55830	3609	22.01	22.50	1.119	62.9	1.006	-0.08	0.367	0.413
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 5	DSI 9	55340	3560	21.79	22.50	1.178	62.9	1.006	-0.04	0.446	0.528
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 5	DSI 9	56150	3641	21.83	22.50	1.167	62.9	1.006	0.11	0.381	0.447
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 5	DSI 9	56640	3690	21.80	22.50	1.175	62.9	1.006	-0.02	0.326	0.385
	LTE Band 48	20M	QPSK	100	0	DFT-30	Back	10mm	Ant 5	DSI 9	55830	3609	21.82	22.50	1.169	62.9	1.006	-0.07	0.326	0.384
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	10mm	Ant 6	DSI 9	55830	3609	21.98	22.50	1.127	62.9	1.006	-0.02	0.378	0.429
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 6	DSI 9	55830	3609	21.98	22.50	1.127	62.9	1.006	0.12	0.576	0.653
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	55830	3609	21.98	22.50	1.127	62.9	1.006	-0.08	0.807	0.915
	LTE Band 48	20M	QPSK	1	0	DFT-30	Top Side	10mm	Ant 6	DSI 9	55830	3609	21.98	22.50	1.127	62.9	1.006	0.1	0.145	0.164
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 6	DSI 9	55340	3560	21.68	22.50	1.208	62.9	1.006	-0.15	0.482	0.586
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 6	DSI 9	56150	3641	21.90	22.50	1.148	62.9	1.006	0.11	0.584	0.675
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	10mm	Ant 6	DSI 9	56640	3690	21.91	22.50	1.146	62.9	1.006	0.09	0.561	0.646
	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	55340	3560	21.68	22.50	1.208	62.9	1.006	0.12	0.681	0.827
43	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	56150	3641	21.90	22.50	1.148	62.9	1.006	0.05	0.825	0.953



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	LTE Band 48	20M	QPSK	1	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	56640	3690	21.91	22.50	1.146	62.9	1.006	0.16	0.793	0.914
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	10mm	Ant 6	DSI 9	55830	3609	21.11	21.50	1.094	62.9	1.006	0.07	0.367	0.404
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 6	DSI 9	55830	3609	21.11	21.50	1.094	62.9	1.006	-0.01	0.559	0.615
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	55830	3609	21.11	21.50	1.094	62.9	1.006	0.12	0.783	0.862
	LTE Band 48	20M	QPSK	50	0	DFT-30	Top Side	10mm	Ant 6	DSI 9	55830	3609	21.11	21.50	1.094	62.9	1.006	-0.07	0.141	0.155
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 6	DSI 9	55340	3560	20.88	21.50	1.153	62.9	1.006	-0.11	0.468	0.543
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 6	DSI 9	56150	3641	21.04	21.50	1.112	62.9	1.006	0.14	0.567	0.634
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	10mm	Ant 6	DSI 9	56640	3690	21.05	21.50	1.109	62.9	1.006	-0.05	0.544	0.607
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	55340	3560	20.88	21.50	1.153	62.9	1.006	0.06	0.661	0.767
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	56150	3641	21.04	21.50	1.112	62.9	1.006	0.02	0.801	0.896
	LTE Band 48	20M	QPSK	50	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	56640	3690	21.05	21.50	1.109	62.9	1.006	-0.06	0.770	0.859
	LTE Band 48	20M	QPSK	100	0	DFT-30	Back	10mm	Ant 6	DSI 9	55830	3609	21.07	21.50	1.104	62.9	1.006	0.11	0.534	0.593
	LTE Band 48	20M	QPSK	100	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	55830	3609	21.07	21.50	1.104	62.9	1.006	0.07	0.769	0.854
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI 9	641666	3624.99	17.75	18.50	1.189	-	-	-0.14	0.259	0.308
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI 9	641666	3624.99	17.75	18.50	1.189	-	-	0.01	0.463	0.550
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 9	641666	3624.99	17.75	18.50	1.189	-	-	-0.08	0.584	0.694
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	DSI 9	641666	3624.99	17.75	18.50	1.189	-	-	0.03	0.158	0.188
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 9	638000	3570	17.71	18.50	1.199	-	-	-0.09	0.670	0.804
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 9	645332	3679.98	17.68	18.50	1.208	-	-	0.11	0.466	0.563
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 3	DSI 9	641666	3624.99	17.70	18.50	1.202	-	-	-0.07	0.275	0.331
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 3	DSI 9	641666	3624.99	17.70	18.50	1.202	-	-	-0.14	0.471	0.566
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 3	DSI 9	641666	3624.99	17.70	18.50	1.202	-	-	0.15	0.606	0.729
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 3	DSI 9	641666	3624.99	17.70	18.50	1.202	-	-	0.14	0.164	0.197
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 3	DSI 9	638000	3570	17.69	18.50	1.205	-	-	0.15	0.682	0.822
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 3	DSI 9	645332	3679.98	17.66	18.50	1.213	-	-	0.14	0.489	0.593
	FR1 n48	40M	QPSK	100	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	641666	3624.99	17.67	18.50	1.211	-	-	0	0.566	0.685
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	DSI 9	641666	3624.99	20.19	21.00	1.205	-	-	0.08	0.355	0.428
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 9	641666	3624.99	20.19	21.00	1.205	-	-	-0.05	0.737	0.888
	FR1 n48	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	DSI 9	641666	3624.99	20.19	21.00	1.205	-	-	0.13	0.346	0.417
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 9	641666	3624.99	20.19	21.00	1.205	-	-	-0.05	0.667	0.804
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 9	638000	3570	20.12	21.00	1.225	-	-	0.09	0.759	0.929
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 9	645332	3679.98	20.15	21.00	1.216	-	-	-0.14	0.702	0.854
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 9	638000	3570	20.12	21.00	1.225	-	-	-0.05	0.646	0.791
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 9	645332	3679.98	20.15	21.00	1.216	-	-	-0.13	0.597	0.726
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 4	DSI 9	641666	3624.99	20.16	21.00	1.213	-	-	0.1	0.346	0.420
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 4	DSI 9	641666	3624.99	20.16	21.00	1.213	-	-	-0.06	0.722	0.876
	FR1 n48	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 4	DSI 9	641666	3624.99	20.16	21.00	1.213	-	-	0.08	0.336	0.408
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 4	DSI 9	641666	3624.99	20.16	21.00	1.213	-	-	-0.09	0.641	0.778
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 4	DSI 9	638000	3570	20.11	21.00	1.227	-	-	0.1	0.741	0.910
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 4	DSI 9	645332	3679.98	20.10	21.00	1.230	-	-	-0.05	0.685	0.843
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 4	DSI 9	638000	3570	20.11	21.00	1.227	-	-	-0.09	0.630	0.773
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 4	DSI 9	645332	3679.98	20.10	21.00	1.230	-	-	-0.01	0.581	0.715
	FR1 n48	40M	QPSK	100	0	DFT-30	Back	10mm	Ant 4	DSI 9	641666	3624.99	20.13	21.00	1.222	-	-	0.12	0.709	0.866
	FR1 n48	40M	QPSK	100	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	641666	3624.99	20.13	21.00	1.222	-	-	0.11	0.637	0.778
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI 9	641666	3624.99	21.62	22.50	1.225	-	-	0.07	0.415	0.508
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 9	641666	3624.99	21.62	22.50	1.225	-	-	-0.05	0.717	0.878
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI 9	641666	3624.99	21.62	22.50	1.225	-	-	-0.09	0.402	0.492
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI 9	641666	3624.99	21.62	22.50	1.225	-	-	0.03	0.652	0.798
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 9	638000	3570	21.56	22.50	1.242	-	-	-0.09	0.727	0.903
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 9	645332	3679.98	21.53	22.50	1.250	-	-	0.04	0.653	0.816
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI 9	638000	3570	21.56	22.50	1.242	-	-	0.11	0.633	0.786
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI 9	645332	3679.98	21.53	22.50	1.250	-	-	0.09	0.569	0.711
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 5	DSI 9	641666	3624.99	21.28	22.50	1.324	-	-	0.12	0.341	0.452
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 5	DSI 9	641666	3624.99	21.28	22.50	1.324	-	-	-0.16	0.668	0.885
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 5	DSI 9	641666	3624.99	21.28	22.50	1.324	-	-	-0.03	0.330	0.437
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 5	DSI 9	641666	3624.99	21.28	22.50	1.324	-	-	0.14	0.594	0.787



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	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 5	DSI 9	638000	3570	21.25	22.50	1.334	-	-	-0.15	0.673	0.897
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 5	DSI 9	645332	3679.98	21.17	22.50	1.358	-	-	-0.12	0.616	0.837
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 5	DSI 9	638000	3570	21.25	22.50	1.334	-	-	0	0.609	0.812
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 5	DSI 9	645332	3679.98	21.17	22.50	1.358	-	-	-0.04	0.557	0.757
	FR1 n48	40M	QPSK	100	0	DFT-30	Back	10mm	Ant 5	DSI 9	641666	3624.99	21.00	22.50	1.413	-	-	-0.16	0.642	0.907
	FR1 n48	40M	QPSK	100	0	DFT-30	Top Side	10mm	Ant 5	DSI 9	641666	3624.99	21.00	22.50	1.413	-	-	0.07	0.579	0.818
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI 9	641666	3624.99	18.42	19.50	1.282	-	-	-0.1	0.342	0.439
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9	641666	3624.99	18.42	19.50	1.282	-	-	-0.09	0.536	0.687
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 6	DSI 9	641666	3624.99	18.42	19.50	1.282	-	-	-0.05	0.716	0.918
	FR1 n48	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI 9	641666	3624.99	18.42	19.50	1.282	-	-	0.16	0.155	0.199
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9	638000	3570	18.33	19.50	1.309	-	-	0.09	0.497	0.651
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9	645332	3679.98	18.35	19.50	1.303	-	-	0.1	0.573	0.747
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 6	DSI 9	638000	3570	18.33	19.50	1.309	-	-	-0.06	0.655	0.858
44	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 6	DSI 9	645332	3679.98	18.35	19.50	1.303	-	-	-0.16	0.755	0.984
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 6	DSI 9	641666	3624.99	18.38	19.50	1.294	-	-	-0.14	0.332	0.430
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 6	DSI 9	641666	3624.99	18.38	19.50	1.294	-	-	0	0.520	0.673
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 6	DSI 9	641666	3624.99	18.38	19.50	1.294	-	-	-0.15	0.695	0.899
	FR1 n48	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 6	DSI 9	641666	3624.99	18.38	19.50	1.294	-	-	-0.06	0.150	0.194
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 6	DSI 9	638000	3570	18.29	19.50	1.321	-	-	-0.11	0.482	0.637
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 6	DSI 9	645332	3679.98	18.33	19.50	1.309	-	-	-0.03	0.556	0.728
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 6	DSI 9	638000	3570	18.29	19.50	1.321	-	-	0.12	0.636	0.840
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 6	DSI 9	645332	3679.98	18.33	19.50	1.309	-	-	0.03	0.733	0.960
	FR1 n48	40M	QPSK	100	0	DFT-30	Back	10mm	Ant 6	DSI 9	641666	3624.99	18.35	19.50	1.303	-	-	0.15	0.509	0.663
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	641666	3624.99	18.35	19.50	1.303	-	-	-0.14	0.676	0.881
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI 9	641666	3624.99	18.58	19.50	1.236	-	-	-0.01	0.227	0.281
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI 9	641666	3624.99	18.58	19.50	1.236	-	-	-0.11	0.395	0.488
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 9	641666	3624.99	18.58	19.50	1.236	-	-	0.03	0.581	0.718
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	DSI 9	641666	3624.99	18.58	19.50	1.236	-	-	0.12	0.132	0.163
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI 9	641666	3624.99	18.54	19.50	1.247	-	-	0.03	0.237	0.296
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI 9	641666	3624.99	18.54	19.50	1.247	-	-	-0.07	0.413	0.515
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI 9	641666	3624.99	18.54	19.50	1.247	-	-	-0.03	0.602	0.751
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	DSI 9	641666	3624.99	18.54	19.50	1.247	-	-	-0.13	0.138	0.172
	FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 3	DSI 9	641666	3624.99	18.53	19.50	1.250	-	-	0.07	0.576	0.720
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI 9	633332	3499.98	18.50	19.50	1.259	-	-	-0.08	0.276	0.347
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI 9	633332	3499.98	18.50	19.50	1.259	-	-	-0.05	0.471	0.593
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 9	633332	3499.98	18.50	19.50	1.259	-	-	0.05	0.751	0.945
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	DSI 9	633332	3499.98	18.50	19.50	1.259	-	-	0.01	0.168	0.211
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI 9	633332	3499.98	18.48	19.50	1.265	-	-	0.12	0.293	0.371
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI 9	633332	3499.98	18.48	19.50	1.265	-	-	-0.06	0.493	0.624
45	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI 9	633332	3499.98	18.48	19.50	1.265	-	-	-0.05	0.765	0.968
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	DSI 9	633332	3499.98	18.48	19.50	1.265	-	-	0.06	0.172	0.218
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	633332	3499.98	18.42	19.50	1.282	-	-	0.02	0.752	0.964
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 3	DSI 9	656000	3840	18.43	19.50	1.279	-	-	0.1	0.239	0.306
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 3	DSI 9	656000	3840	18.43	19.50	1.279	-	-	-0.07	0.440	0.563
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 3	DSI 9	656000	3840	18.43	19.50	1.279	-	-	-0.04	0.725	0.928
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 3	DSI 9	656000	3840	18.43	19.50	1.279	-	-	-0.03	0.207	0.265
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 3	DSI 9	656000	3840	18.39	19.50	1.291	-	-	0.01	0.225	0.291
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 3	DSI 9	656000	3840	18.39	19.50	1.291	-	-	-0.12	0.414	0.535
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 3	DSI 9	656000	3840	18.39	19.50	1.291	-	-	0.05	0.682	0.881
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 3	DSI 9	656000	3840	18.39	19.50	1.291	-	-	-0.04	0.194	0.250
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 3	DSI 9	656000	3840	18.33	19.50	1.309	-	-	0.12	0.412	0.539
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 3	DSI 9	656000	3840	18.33	19.50	1.309	-	-	-0.12	0.678	0.888
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	DSI 9	641666	3624.99	20.45	21.00	1.135	-	-	-0.14	0.295	0.335
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 9	641666	3624.99	20.45	21.00	1.135	-	-	-0.01	0.661	0.750
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	DSI 9	641666	3624.99	20.45	21.00	1.135	-	-	0	0.226	0.257
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 9	641666	3624.99	20.45	21.00	1.135	-	-	-0.12	0.577	0.655



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	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 9	641666	3624.99	20.41	21.00	1.146	-	-	-0.04	0.268	0.307
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 9	641666	3624.99	20.41	21.00	1.146	-	-	0.06	0.637	0.730
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 9	641666	3624.99	20.41	21.00	1.146	-	-	0.11	0.218	0.250
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 9	641666	3624.99	20.41	21.00	1.146	-	-	-0.16	0.520	0.596
	FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 4	DSI 9	641666	3624.99	20.35	21.00	1.161	-	-	-0.08	0.626	0.727
	FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	641666	3624.99	20.35	21.00	1.161	-	-	0.02	0.531	0.617
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	DSI 9	633332	3499.98	20.35	21.00	1.161	-	-	0.14	0.265	0.308
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 9	633332	3499.98	20.35	21.00	1.161	-	-	-0.1	0.703	0.816
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	DSI 9	633332	3499.98	20.35	21.00	1.161	-	-	0.1	0.200	0.232
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 9	633332	3499.98	20.35	21.00	1.161	-	-	0.07	0.585	0.679
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 9	633332	3499.98	20.32	21.00	1.169	-	-	-0.09	0.271	0.317
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 9	633332	3499.98	20.32	21.00	1.169	-	-	-0.04	0.726	0.849
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 9	633332	3499.98	20.32	21.00	1.169	-	-	0.08	0.204	0.239
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 9	633332	3499.98	20.32	21.00	1.169	-	-	0.15	0.607	0.710
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 4	DSI 9	633332	3499.98	20.25	21.00	1.189	-	-	0.08	0.692	0.822
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 4	DSI 9	656000	3840	20.30	21.00	1.175	-	-	-0.14	0.303	0.356
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 4	DSI 9	656000	3840	20.30	21.00	1.175	-	-	0.03	0.669	0.786
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 4	DSI 9	656000	3840	20.30	21.00	1.175	-	-	0.07	0.221	0.260
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 4	DSI 9	656000	3840	20.30	21.00	1.175	-	-	-0.1	0.606	0.712
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 4	DSI 9	656000	3840	20.26	21.00	1.186	-	-	-0.05	0.319	0.378
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 4	DSI 9	656000	3840	20.26	21.00	1.186	-	-	-0.01	0.686	0.813
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 4	DSI 9	656000	3840	20.26	21.00	1.186	-	-	-0.03	0.238	0.282
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 4	DSI 9	656000	3840	20.26	21.00	1.186	-	-	0.07	0.618	0.733
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 4	DSI 9	656000	3840	20.24	21.00	1.191	-	-	0.13	0.652	0.777
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 4	DSI 9	656000	3840	20.24	21.00	1.191	-	-	0.13	0.589	0.702
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI 9	641666	3624.99	21.49	22.00	1.125	-	-	0.11	0.375	0.422
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 9	641666	3624.99	21.49	22.00	1.125	-	-	-0.13	0.648	0.729
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI 9	641666	3624.99	21.49	22.00	1.125	-	-	0.07	0.297	0.334
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI 9	641666	3624.99	21.49	22.00	1.125	-	-	-0.12	0.579	0.651
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 9	641666	3624.99	21.46	22.00	1.132	-	-	-0.16	0.367	0.416
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 9	641666	3624.99	21.46	22.00	1.132	-	-	0.14	0.628	0.711
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 9	641666	3624.99	21.46	22.00	1.132	-	-	0.08	0.270	0.306
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 9	641666	3624.99	21.46	22.00	1.132	-	-	-0.08	0.558	0.632
	FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 5	DSI 9	641666	3624.99	21.44	22.00	1.138	-	-	-0.1	0.612	0.696
	FR1 n77 Part96	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 5	DSI 9	641666	3624.99	21.44	22.00	1.138	-	-	0.1	0.551	0.627
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI 9	633332	3499.98	21.42	22.00	1.143	-	-	-0.07	0.454	0.519
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 9	633332	3499.98	21.42	22.00	1.143	-	-	0.11	0.808	0.923
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI 9	633332	3499.98	21.42	22.00	1.143	-	-	0.13	0.317	0.362
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI 9	633332	3499.98	21.42	22.00	1.143	-	-	0.14	0.728	0.832
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 9	633332	3499.98	21.38	22.00	1.153	-	-	0.03	0.437	0.504
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 9	633332	3499.98	21.38	22.00	1.153	-	-	-0.06	0.768	0.886
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 9	633332	3499.98	21.38	22.00	1.153	-	-	-0.05	0.279	0.322
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 9	633332	3499.98	21.38	22.00	1.153	-	-	0.06	0.693	0.799
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 5	DSI 9	633332	3499.98	21.33	22.00	1.167	-	-	0.08	0.759	0.886
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 5	DSI 9	633332	3499.98	21.33	22.00	1.167	-	-	-0.06	0.701	0.818
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI 9	656000	3840	21.48	22.00	1.127	-	-	-0.03	0.281	0.317
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 9	656000	3840	21.48	22.00	1.127	-	-	0.11	0.586	0.661
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI 9	656000	3840	21.48	22.00	1.127	-	-	-0.01	0.213	0.240
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 5	DSI 9	656000	3840	21.48	22.00	1.127	-	-	-0.12	0.501	0.565
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 9	656000	3840	21.47	22.00	1.130	-	-	-0.16	0.267	0.302
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 9	656000	3840	21.47	22.00	1.130	-	-	0.14	0.566	0.639
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 9	656000	3840	21.47	22.00	1.130	-	-	0.07	0.209	0.236
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 5	DSI 9	656000	3840	21.47	22.00	1.130	-	-	0	0.489	0.552
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 5	DSI 9	656000	3840	21.41	22.00	1.146	-	-	0.14	0.542	0.621
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 5	DSI 9	656000	3840	21.41	22.00	1.146	-	-	0.11	0.481	0.551
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI 9	641666	3624.99	17.82	18.50	1.169	-	-	-0.01	0.359	0.420



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FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9	641666	3624.99	17.82	18.50	1.169	-	-	0.16	0.642	0.751
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 6	DSI 9	641666	3624.99	17.82	18.50	1.169	-	-	-0.15	0.792	0.926
FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI 9	641666	3624.99	17.82	18.50	1.169	-	-	0.05	0.152	0.178
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 9	641666	3624.99	17.77	18.50	1.183	-	-	-0.08	0.348	0.412
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 9	641666	3624.99	17.77	18.50	1.183	-	-	0.13	0.626	0.741
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 9	641666	3624.99	17.77	18.50	1.183	-	-	0.15	0.781	0.924
FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 9	641666	3624.99	17.77	18.50	1.183	-	-	0.13	0.142	0.168
FR1 n77 Part96	100M	QPSK	270	270	DFT-30	Back	10mm	Ant 6	DSI 9	641666	3624.99	17.73	18.50	1.194	-	-	-0.04	0.606	0.724
FR1 n77 Part96	100M	QPSK	270	270	DFT-30	Right Side	10mm	Ant 6	DSI 9	641666	3624.99	17.73	18.50	1.194	-	-	-0.16	0.775	0.925
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI 9	633332	3499.98	17.76	18.50	1.186	-	-	0.07	0.291	0.345
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9	633332	3499.98	17.76	18.50	1.186	-	-	-0.07	0.488	0.579
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 6	DSI 9	633332	3499.98	17.76	18.50	1.186	-	-	-0.08	0.623	0.739
FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI 9	633332	3499.98	17.76	18.50	1.186	-	-	-0.01	0.105	0.125
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 9	633332	3499.98	17.75	18.50	1.189	-	-	-0.01	0.288	0.342
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 9	633332	3499.98	17.75	18.50	1.189	-	-	0.1	0.461	0.548
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 9	633332	3499.98	17.75	18.50	1.189	-	-	-0.05	0.609	0.724
FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 9	633332	3499.98	17.75	18.50	1.189	-	-	-0.07	0.103	0.122
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI 9	656000	3840	17.80	18.50	1.175	-	-	-0.12	0.372	0.437
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9	656000	3840	17.80	18.50	1.175	-	-	0.1	0.610	0.717
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 6	DSI 9	656000	3840	17.80	18.50	1.175	-	-	-0.03	0.808	0.949
FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI 9	656000	3840	17.80	18.50	1.175	-	-	0.1	0.180	0.211
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 9	656000	3840	17.76	18.50	1.186	-	-	0.15	0.357	0.423
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 9	656000	3840	17.76	18.50	1.186	-	-	0.13	0.581	0.689
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 6	DSI 9	656000	3840	17.76	18.50	1.186	-	-	0.13	0.773	0.917
FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 9	656000	3840	17.76	18.50	1.186	-	-	0.16	0.166	0.197
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Front	10mm	Ant 6	DSI 9	656000	3840	17.75	18.50	1.189	-	-	-0.01	0.348	0.414
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 6	DSI 9	656000	3840	17.75	18.50	1.189	-	-	0.15	0.579	0.688
FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 6	DSI 9	656000	3840	17.75	18.50	1.189	-	-	-0.14	0.768	0.913



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN2.4GHz&BT																
46	Bluetooth	DH5 1Mbps	Front	10mm	Ant 6	Power level 1	39	2441	17.80	18.00	1.047	76.53	1.307	0.03	0.223	0.305
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 6	Power level 1	39	2441	17.80	18.00	1.047	76.53	1.307	0.12	0.339	0.464
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 6	Power level 1	39	2441	17.80	18.00	1.047	76.53	1.307	-0.16	0.489	0.669
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 6	Power level 1	39	2441	17.80	18.00	1.047	76.53	1.307	0.03	0.017	0.023
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 6	Power level 2	39	2441	16.30	17.00	1.175	76.53	1.307	0.09	0.172	0.264
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 6	Power level 2	39	2441	16.30	17.00	1.175	76.53	1.307	-0.05	0.243	0.373
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 6	Power level 2	39	2441	16.30	17.00	1.175	76.53	1.307	0.02	0.369	0.567
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 6	Power level 2	39	2441	16.30	17.00	1.175	76.53	1.307	0.06	0.014	0.021
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 6	Power level 3	39	2441	13.80	14.00	1.047	76.53	1.307	0.03	0.104	0.142
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 6	Power level 3	39	2441	13.80	14.00	1.047	76.53	1.307	-0.07	0.161	0.220
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 6	Power level 3	39	2441	13.80	14.00	1.047	76.53	1.307	0.06	0.225	0.308
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 6	Power level 3	39	2441	13.80	14.00	1.047	76.53	1.307	-0.02	0.009	0.012
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 7	Power level 1/2	39	2441	17.10	18.00	1.230	76.53	1.307	0.01	0.152	0.244
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 7	Power level 1/2	39	2441	17.10	18.00	1.230	76.53	1.307	0.05	0.201	0.323
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 7	Power level 1/2	39	2441	17.10	18.00	1.230	76.53	1.307	-0.09	0.018	0.029
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power level 1/2	39	2441	17.10	18.00	1.230	76.53	1.307	-0.11	0.085	0.137
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 7	Power level 1/2	39	2441	17.10	18.00	1.230	76.53	1.307	0.15	0.196	0.315
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 7	Power level 3	39	2441	15.60	16.50	1.230	76.53	1.307	-0.01	0.125	0.201
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 7	Power level 3	39	2441	15.60	16.50	1.230	76.53	1.307	0.09	0.162	0.260
	Bluetooth	DH5 1Mbps	Left Side	10mm	Ant 7	Power level 3	39	2441	15.60	16.50	1.230	76.53	1.307	-0.02	0.016	0.026
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power level 3	39	2441	15.60	16.50	1.230	76.53	1.307	0.05	0.069	0.111
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 7	Power level 3	39	2441	15.60	16.50	1.230	76.53	1.307	0.09	0.157	0.252
47	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 6+7	Power level 1	1	2412	19.91	21.00	1.285	98.53	1.015	-0.08	0.332	0.433
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 6+7	Power level 1	1	2412	19.91	21.00	1.285	98.53	1.015	-0.15	0.539	0.703
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 6+7	Power level 1	1	2412	19.91	21.00	1.285	98.53	1.015	0.06	0.056	0.073
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6+7	Power level 1	1	2412	19.91	21.00	1.285	98.53	1.015	0.1	0.752	0.981
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 6+7	Power level 1	1	2412	19.91	21.00	1.285	98.53	1.015	0.03	0.323	0.421
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6+7	Power level 1	6	2437	19.81	21.00	1.315	98.53	1.015	0.05	0.893	1.192
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6+7	Power level 1	11	2462	19.81	21.00	1.315	98.53	1.015	-0.15	0.872	1.164
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 6+7	Power level 2	1	2412	17.42	18.50	1.282	98.53	1.015	-0.02	0.201	0.262
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 6+7	Power level 2	1	2412	17.42	18.50	1.282	98.53	1.015	-0.15	0.312	0.406
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 6+7	Power level 2	1	2412	17.42	18.50	1.282	98.53	1.015	0.09	0.033	0.043
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6+7	Power level 2	1	2412	17.42	18.50	1.282	98.53	1.015	0.01	0.435	0.566
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 6+7	Power level 2	1	2412	17.42	18.50	1.282	98.53	1.015	0.15	0.196	0.255
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 6+7	Power level 3	1	2412	14.35	15.50	1.303	98.53	1.015	-0.14	0.109	0.144
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 6+7	Power level 3	1	2412	14.35	15.50	1.303	98.53	1.015	0.06	0.162	0.214
	WLAN2.4GHz	802.11b 1Mbps	Left Side	10mm	Ant 6+7	Power level 3	1	2412	14.35	15.50	1.303	98.53	1.015	0.13	0.018	0.024
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 6+7	Power level 3	1	2412	14.35	15.50	1.303	98.53	1.015	-0.08	0.223	0.295
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 6+7	Power level 3	1	2412	14.35	15.50	1.303	98.53	1.015	0.13	0.101	0.134
WLAN5GHz																
48	WLAN5.2GHz	802.11n-HT40 MCS0	Front	10mm	Ant 5+6	Power level 1	46	5230	19.54	20.50	1.246	99.63	1.004	0.06	0.315	0.394
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 5+6	Power level 1	46	5230	19.54	20.50	1.246	99.63	1.004	-0.03	0.699	0.874
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 5+6	Power level 1	46	5230	19.54	20.50	1.246	99.63	1.004	0.08	0.659	0.824
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	10mm	Ant 5+6	Power level 1	46	5230	19.54	20.50	1.246	99.63	1.004	-0.09	0.572	0.716
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	10mm	Ant 5+6	Power level 1	38	5190	18.55	20.00	1.395	99.63	1.004	-0.14	0.526	0.737
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	10mm	Ant 5+6	Power level 1	38	5190	18.55	20.00	1.395	99.63	1.004	-0.04	0.507	0.710
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 5+6	Power level 2	42	5210	17.70	19.00	1.349	99.63	1.004	0.07	0.190	0.257
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 5+6	Power level 2	42	5210	17.70	19.00	1.349	99.63	1.004	0.04	0.429	0.581
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 5+6	Power level 2	42	5210	17.70	19.00	1.349	99.63	1.004	0.07	0.403	0.546
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 5+6	Power level 2	42	5210	17.70	19.00	1.349	99.63	1.004	-0.03	0.354	0.479
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 5+6	Power level 3	42	5210	14.70	16.00	1.349	99.63	1.004	0.13	0.102	0.138



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	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 5+6	Power level 3	42	5210	14.70	16.00	1.349	99.63	1.004	0.08	0.223	0.302
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 5+6	Power level 3	42	5210	14.70	16.00	1.349	99.63	1.004	0.06	0.204	0.276
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 5+6	Power level 3	42	5210	14.70	16.00	1.349	99.63	1.004	0.04	0.179	0.242
	WLAN5.8GHz	802.11a 6Mbps	Front	10mm	Ant 5+6	Power level 1	149	5745	19.44	20.50	1.276	99.06	1.009	-0.06	0.354	0.456
49	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 5+6	Power level 1	149	5745	19.44	20.50	1.276	99.06	1.009	0.1	0.748	0.963
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 5+6	Power level 1	149	5745	19.44	20.50	1.276	99.06	1.009	-0.08	0.737	0.949
	WLAN5.8GHz	802.11a 6Mbps	Top Side	10mm	Ant 5+6	Power level 1	149	5745	19.44	20.50	1.276	99.06	1.009	-0.16	0.583	0.751
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 5+6	Power level 1	157	5785	18.94	20.00	1.276	99.06	1.009	0	0.689	0.887
	WLAN5.8GHz	802.11a 6Mbps	Back	10mm	Ant 5+6	Power level 1	165	5825	18.95	20.00	1.274	99.06	1.009	0.12	0.633	0.813
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 5+6	Power level 1	157	5785	18.94	20.00	1.276	99.06	1.009	0.04	0.645	0.831
	WLAN5.8GHz	802.11a 6Mbps	Right Side	10mm	Ant 5+6	Power level 1	165	5825	18.95	20.00	1.274	99.06	1.009	0.04	0.596	0.766
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 5+6	Power level 2	155	5775	16.20	18.00	1.514	99.63	1.004	-0.01	0.207	0.315
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 5+6	Power level 2	155	5775	16.20	18.00	1.514	99.63	1.004	-0.09	0.401	0.609
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 5+6	Power level 2	155	5775	16.20	18.00	1.514	99.63	1.004	0.04	0.376	0.571
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 5+6	Power level 2	155	5775	16.20	18.00	1.514	99.63	1.004	-0.03	0.308	0.468
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 5+6	Power level 3	155	5775	13.35	15.00	1.462	99.63	1.004	0.12	0.098	0.144
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 5+6	Power level 3	155	5775	13.35	15.00	1.462	99.63	1.004	0.01	0.211	0.310
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 5+6	Power level 3	155	5775	13.35	15.00	1.462	99.63	1.004	0.06	0.192	0.282
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 5+6	Power level 3	155	5775	13.35	15.00	1.462	99.63	1.004	-0.11	0.163	0.239



15.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 7	23095	707.5	24.17	25.00	1.211	-	-	-0.15	0.158	0.191
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 7	23095	707.5	24.17	25.00	1.211	-	-	0.11	0.185	0.224
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	DSI 7	23095	707.5	23.15	24.00	1.216	-	-	-0.15	0.142	0.173
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	DSI 7	23095	707.5	23.15	24.00	1.216	-	-	0.15	0.175	0.213
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 7	23095	707.5	24.15	25.00	1.216	-	-	0.12	0.331	0.403
50	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 7	23095	707.5	24.15	25.00	1.216	-	-	0.16	0.450	0.547
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	DSI 7	23095	707.5	23.12	24.00	1.225	-	-	-0.01	0.312	0.382
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	DSI 7	23095	707.5	23.12	24.00	1.225	-	-	-0.11	0.420	0.514
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 7	141500	707.5	23.55	25.00	1.396	-	-	0.12	0.209	0.292
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 7	141500	707.5	23.55	25.00	1.396	-	-	-0.08	0.223	0.311
	FR1 n12	15M	QPSK	18	10	DFT-15	Front	15mm	Ant 0	DSI 7	141500	707.5	23.51	24.00	1.119	-	-	-0.05	0.197	0.221
	FR1 n12	15M	QPSK	18	10	DFT-15	Back	15mm	Ant 0	DSI 7	141500	707.5	23.51	24.00	1.119	-	-	0.12	0.219	0.245
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	DSI 7	141500	707.5	23.48	25.00	1.419	-	-	-0.14	0.410	0.582
51	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	DSI 7	141500	707.5	23.48	25.00	1.419	-	-	0	0.573	0.813
	FR1 n12	15M	QPSK	18	10	DFT-15	Front	15mm	Ant 1	DSI 7	141500	707.5	23.44	24.00	1.138	-	-	-0.14	0.409	0.465
	FR1 n12	15M	QPSK	18	10	DFT-15	Back	15mm	Ant 1	DSI 7	141500	707.5	23.44	24.00	1.138	-	-	0.09	0.566	0.644
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 0	DSI 7	251	848.8	25.87	27.50	1.455	-	-	-0.16	0.126	0.183
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 0	DSI 7	251	848.8	25.87	27.50	1.455	-	-	0.03	0.174	0.253
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 1	DSI 7	251	848.8	25.80	27.50	1.479	-	-	0	0.283	0.419
52	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 1	DSI 7	251	848.8	25.80	27.50	1.479	-	-	-0.07	0.387	0.572
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 7	4182	836.4	24.05	25.00	1.245	-	-	-0.05	0.202	0.251
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 7	4182	836.4	24.05	25.00	1.245	-	-	-0.08	0.272	0.339
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	DSI 7	4182	836.4	24.11	25.00	1.227	-	-	-0.01	0.361	0.443
53	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	DSI 7	4182	836.4	24.11	25.00	1.227	-	-	-0.09	0.505	0.620
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	DSI 7	26865	831.5	24.21	25.00	1.199	-	-	0.05	0.167	0.200
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	DSI 7	26865	831.5	24.21	25.00	1.199	-	-	0.04	0.224	0.269
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	DSI 7	26865	831.5	23.12	24.00	1.225	-	-	-0.09	0.157	0.192
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	DSI 7	26865	831.5	23.12	24.00	1.225	-	-	-0.05	0.205	0.251
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	DSI 7	26865	831.5	24.17	25.00	1.211	-	-	-0.14	0.241	0.292
54	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	DSI 7	26865	831.5	24.17	25.00	1.211	-	-	-0.02	0.326	0.395
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	DSI 7	26865	831.5	23.15	24.00	1.216	-	-	0.15	0.231	0.281
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	DSI 7	26865	831.5	23.15	24.00	1.216	-	-	0.16	0.292	0.355
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 7	167300	836.5	23.63	25.00	1.371	-	-	0.14	0.193	0.265
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 7	167300	836.5	23.63	25.00	1.371	-	-	0.12	0.256	0.351
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	DSI 7	167300	836.5	23.62	25.00	1.374	-	-	0.03	0.181	0.249
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	DSI 7	167300	836.5	23.62	25.00	1.374	-	-	-0.09	0.245	0.337
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	DSI 7	167300	836.5	23.74	25.00	1.337	-	-	-0.14	0.289	0.386
55	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	DSI 7	167300	836.5	23.74	25.00	1.337	-	-	-0.02	0.421	0.563
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	DSI 7	167300	836.5	23.71	25.00	1.346	-	-	0.06	0.271	0.365
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	DSI 7	167300	836.5	23.71	25.00	1.346	-	-	-0.07	0.393	0.529
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 7	1413	1732.6	22.84	23.50	1.164	-	-	-0.07	0.603	0.702
56	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 7	1413	1732.6	22.84	23.50	1.164	-	-	-0.07	0.852	0.992
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 7	1312	1712.4	22.82	23.50	1.169	-	-	0.12	0.724	0.847
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 7	1513	1752.6	22.77	23.50	1.183	-	-	0.15	0.834	0.987
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	DSI 7	1413	1732.6	22.18	23.00	1.208	-	-	0.09	0.242	0.292
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	DSI 7	1413	1732.6	22.18	23.00	1.208	-	-	-0.14	0.426	0.515
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI 7	1413	1732.6	21.69	22.50	1.205	-	-	-0.15	0.280	0.337
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI 7	1413	1732.6	21.69	22.50	1.205	-	-	-0.14	0.432	0.521



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	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 7	132322	1745	23.00	24.00	1.259	-	-	-0.07	0.428	0.539
57	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 7	132322	1745	23.00	24.00	1.259	-	-	-0.02	0.591	0.744
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 7	132322	1745	22.37	23.50	1.297	-	-	0.15	0.397	0.515
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 7	132322	1745	22.37	23.50	1.297	-	-	-0.15	0.541	0.702
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 7	132322	1745	22.00	23.00	1.259	-	-	-0.09	0.205	0.258
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 7	132322	1745	22.00	23.00	1.259	-	-	-0.1	0.355	0.447
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 7	132322	1745	21.95	23.00	1.274	-	-	-0.12	0.218	0.278
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 7	132322	1745	21.95	23.00	1.274	-	-	-0.1	0.369	0.470
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 7	132322	1745	22.10	23.00	1.230	-	-	-0.02	0.253	0.311
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 7	132322	1745	22.10	23.00	1.230	-	-	0.13	0.391	0.481
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 7	132322	1745	22.08	23.00	1.236	-	-	-0.15	0.269	0.332
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 7	132322	1745	22.08	23.00	1.236	-	-	-0.04	0.411	0.508
	FR1 n66	30M	QPSK	1	1	DFT-15	Front	15mm	Ant 2	DSI 7	349000	1745	22.61	23.50	1.227	-	-	-0.11	0.444	0.545
58	FR1 n66	30M	QPSK	1	1	DFT-15	Back	15mm	Ant 2	DSI 7	349000	1745	22.61	23.50	1.227	-	-	-0.15	0.562	0.690
	FR1 n66	30M	QPSK	36	21	DFT-15	Front	15mm	Ant 2	DSI 7	349000	1745	22.58	23.50	1.236	-	-	0.07	0.436	0.539
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	15mm	Ant 2	DSI 7	349000	1745	22.58	23.50	1.236	-	-	-0.16	0.545	0.674
	FR1 n66	30M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	DSI 7	349000	1745	22.66	23.50	1.213	-	-	-0.02	0.228	0.277
	FR1 n66	30M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	DSI 7	349000	1745	22.66	23.50	1.213	-	-	-0.11	0.342	0.415
	FR1 n66	30M	QPSK	36	21	DFT-15	Front	15mm	Ant 3	DSI 7	349000	1745	22.61	23.50	1.227	-	-	0.05	0.255	0.313
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	15mm	Ant 3	DSI 7	349000	1745	22.61	23.50	1.227	-	-	-0.03	0.351	0.431
	FR1 n66	30M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	DSI 7	349000	1745	22.62	23.50	1.225	-	-	0.01	0.250	0.306
	FR1 n66	30M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	DSI 7	349000	1745	22.62	23.50	1.225	-	-	-0.08	0.401	0.491
	FR1 n66	30M	QPSK	36	21	DFT-15	Front	15mm	Ant 4	DSI 7	349000	1745	22.54	23.50	1.247	-	-	-0.08	0.242	0.302
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	15mm	Ant 4	DSI 7	349000	1745	22.54	23.50	1.247	-	-	0.15	0.388	0.484
1900MHz																				
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 2	DSI 7	810	1909.8	23.32	24.50	1.312	-	-	-0.13	0.156	0.205
59	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 2	DSI 7	810	1909.8	23.32	24.50	1.312	-	-	0.03	0.213	0.279
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 3	DSI 7	810	1909.8	23.35	24.50	1.303	-	-	0.08	0.126	0.164
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 3	DSI 7	810	1909.8	23.35	24.50	1.303	-	-	-0.01	0.153	0.199
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Front	15mm	Ant 4	DSI 7	810	1909.8	23.12	24.50	1.374	-	-	0.12	0.123	0.169
	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Back	15mm	Ant 4	DSI 7	810	1909.8	23.12	24.50	1.374	-	-	0.15	0.190	0.261
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 2	DSI 7	9400	1880	21.88	22.50	1.153	-	-	0.13	0.287	0.331
60	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 2	DSI 7	9400	1880	21.88	22.50	1.153	-	-	0.06	0.390	0.450
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 3	DSI 7	9400	1880	22.09	23.00	1.233	-	-	0.13	0.161	0.199
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 3	DSI 7	9400	1880	22.09	23.00	1.233	-	-	-0.12	0.270	0.333
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 4	DSI 7	9400	1880	21.43	22.50	1.279	-	-	0.04	0.222	0.284
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 4	DSI 7	9400	1880	21.43	22.50	1.279	-	-	-0.05	0.308	0.394
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 7	18900	1880	22.10	23.00	1.230	-	-	-0.14	0.278	0.342
61	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 7	18900	1880	22.10	23.00	1.230	-	-	-0.05	0.411	0.506
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 7	18900	1880	22.06	23.00	1.242	-	-	-0.11	0.272	0.338
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 7	18900	1880	22.06	23.00	1.242	-	-	-0.04	0.394	0.489
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 7	18900	1880	22.40	23.50	1.288	-	-	0.05	0.149	0.192
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 7	18900	1880	22.40	23.50	1.288	-	-	-0.07	0.230	0.296
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 7	18900	1880	22.37	23.50	1.297	-	-	-0.06	0.128	0.166
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 7	18900	1880	22.37	23.50	1.297	-	-	-0.16	0.205	0.266
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 7	18900	1880	21.77	23.00	1.327	-	-	0.12	0.184	0.244
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 7	18900	1880	21.77	23.00	1.327	-	-	-0.16	0.291	0.386
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 7	18900	1880	21.70	23.00	1.349	-	-	-0.03	0.182	0.246
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 7	18900	1880	21.70	23.00	1.349	-	-	-0.01	0.285	0.384
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 2	DSI 7	376000	1880	20.96	22.00	1.271	-	-	-0.09	0.202	0.257
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 2	DSI 7	376000	1880	20.96	22.00	1.271	-	-	-0.08	0.301	0.382
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 2	DSI 7	376000	1880	20.95	22.00	1.274	-	-	0.09	0.208	0.265
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 2	DSI 7	376000	1880	20.95	22.00	1.274	-	-	0.09	0.304	0.387
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	DSI 7	376000	1880	22.50	23.50	1.259	-	-	-0.11	0.127	0.160
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	DSI 7	376000	1880	22.50	23.50	1.259	-	-	-0.07	0.194	0.244
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 3	DSI 7	376000	1880	22.44	23.50	1.276	-	-	0.13	0.149	0.190



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	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 3	DSI 7	376000	1880	22.44	23.50	1.276	-	-	0.04	0.218	0.278
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	DSI 7	376000	1880	21.68	23.00	1.355	-	-	-0.05	0.283	0.384
62	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	DSI 7	376000	1880	21.68	23.00	1.355	-	-	-0.13	0.396	0.537
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 4	DSI 7	376000	1880	21.64	23.00	1.368	-	-	0.04	0.266	0.364
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 4	DSI 7	376000	1880	21.64	23.00	1.368	-	-	0.14	0.370	0.506
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 7	21100	2535	22.30	23.00	1.175	-	-	0.16	0.187	0.220
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 7	21100	2535	22.30	23.00	1.175	-	-	0.11	0.359	0.422
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 7	21100	2535	22.29	23.00	1.178	-	-	0.16	0.191	0.225
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 7	21100	2535	22.29	23.00	1.178	-	-	-0.1	0.371	0.437
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 7	21100	2535	20.78	21.50	1.180	-	-	0.15	0.168	0.198
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 7	21100	2535	20.78	21.50	1.180	-	-	-0.04	0.280	0.330
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 7	21100	2535	20.75	21.50	1.189	-	-	-0.02	0.174	0.207
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 7	21100	2535	20.75	21.50	1.189	-	-	0.01	0.306	0.364
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 7	21100	2535	19.70	20.00	1.072	-	-	-0.07	0.188	0.201
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 7	21100	2535	19.70	20.00	1.072	-	-	0.16	0.401	0.430
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 7	21100	2535	19.65	20.00	1.084	-	-	-0.16	0.197	0.214
63	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 7	21100	2535	19.65	20.00	1.084	-	-	0.16	0.423	0.459
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 2	DSI 7	39750	2506	23.80	24.50	1.175	62.9	1.006	0.12	0.168	0.199
64	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 7	39750	2506	23.80	24.50	1.175	62.9	1.006	0	0.360	0.426
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 2	DSI 7	39750+39948	2506+2525.8	23.45	24.50	1.274	62.9	1.006	0.06	0.316	0.405
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 2	DSI 7	39750	2506	22.92	23.50	1.143	62.9	1.006	0.11	0.147	0.169
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 2	DSI 7	39750	2506	22.92	23.50	1.143	62.9	1.006	0.07	0.325	0.374
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 3	DSI 7	39750	2506	24.13	24.50	1.089	62.9	1.006	0.07	0.214	0.234
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 7	39750	2506	24.13	24.50	1.089	62.9	1.006	0.08	0.358	0.392
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 3	DSI 7	39750+39948	2506+2525.8	23.71	24.50	1.199	62.9	1.006	0.02	0.300	0.362
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 3	DSI 7	39750	2506	23.12	23.50	1.091	62.9	1.006	0.09	0.207	0.227
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 3	DSI 7	39750	2506	23.12	23.50	1.091	62.9	1.006	0.04	0.328	0.360
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 4	DSI 7	39750	2506	22.80	23.00	1.047	62.9	1.006	0.15	0.168	0.177
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 7	39750	2506	22.80	23.00	1.047	62.9	1.006	-0.14	0.352	0.371
	LTE Band 41C	20M	QPSK	1	0	-	Back	15mm	Ant 4	DSI 7	39750+39948	2506+2525.8	22.62	23.00	1.091	62.9	1.006	0.08	0.328	0.360
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 4	DSI 7	39750	2506	22.77	23.00	1.054	62.9	1.006	0.13	0.167	0.177
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 4	DSI 7	39750	2506	22.77	23.00	1.054	62.9	1.006	-0.16	0.331	0.351
	FR1 n7	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 2	DSI 7	507000	2535	21.84	22.50	1.164	-	-	0.1	0.183	0.213
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 2	DSI 7	507000	2535	21.84	22.50	1.164	-	-	-0.09	0.325	0.378
	FR1 n7	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 2	DSI 7	507000	2535	21.80	22.50	1.175	-	-	0.05	0.189	0.222
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 2	DSI 7	507000	2535	21.80	22.50	1.175	-	-	-0.14	0.334	0.392
	FR1 n7	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 3	DSI 7	507000	2535	21.58	22.00	1.102	-	-	0.16	0.325	0.358
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 3	DSI 7	507000	2535	21.58	22.00	1.102	-	-	0.1	0.530	0.584
	FR1 n7	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 3	DSI 7	507000	2535	21.56	22.00	1.107	-	-	0.06	0.346	0.383
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 3	DSI 7	507000	2535	21.56	22.00	1.107	-	-	0.09	0.547	0.605
	FR1 n7	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 4	DSI 7	507000	2535	20.98	21.50	1.127	-	-	-0.12	0.286	0.322
65	FR1 n7	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 4	DSI 7	507000	2535	20.98	21.50	1.127	-	-	-0.06	0.551	0.621
	FR1 n7	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 4	DSI 7	507000	2535	20.93	21.50	1.140	-	-	-0.09	0.277	0.316
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 4	DSI 7	507000	2535	20.93	21.50	1.140	-	-	-0.13	0.529	0.603
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 2	DSI 7	518598	2592.99	21.10	22.00	1.230	-	-	-0.06	0.135	0.166
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 2	DSI 7	518598	2592.99	21.10	22.00	1.230	-	-	-0.1	0.245	0.301
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 2	DSI 7	518598	2592.99	20.99	22.00	1.262	-	-	0.01	0.147	0.185
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 2	DSI 7	518598	2592.99	20.99	22.00	1.262	-	-	-0.16	0.262	0.331
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	DSI 7	518598	2592.99	21.19	22.50	1.352	-	-	0.11	0.276	0.373
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	DSI 7	518598	2592.99	21.19	22.50	1.352	-	-	-0.09	0.473	0.640
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	DSI 7	518598	2592.99	21.15	22.50	1.365	-	-	-0.06	0.313	0.427
66	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	DSI 7	518598	2592.99	21.15	22.50	1.365	-	-	-0.05	0.521	0.711
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	DSI 7	518598	2592.99	20.43	21.50	1.279	-	-	-0.12	0.234	0.299
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	DSI 7	518598	2592.99	20.43	21.50	1.279	-	-	-0.13	0.444	0.568



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	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 4	DSI 7	518598	2592.99	20.40	21.50	1.288	-	-	-0.1	0.216	0.278
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 4	DSI 7	518598	2592.99	20.40	21.50	1.288	-	-	0.03	0.423	0.545
3000MHz-4000MHz																				
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	15mm	Ant 3	DSI 7	55830	3609	21.33	21.50	1.040	62.9	1.006	0.13	0.210	0.220
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	15mm	Ant 3	DSI 7	55830	3609	21.33	21.50	1.040	62.9	1.006	-0.07	0.324	0.339
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	15mm	Ant 3	DSI 7	55830	3609	21.32	21.50	1.042	62.9	1.006	0.01	0.214	0.224
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	15mm	Ant 3	DSI 7	55830	3609	21.32	21.50	1.042	62.9	1.006	0.15	0.335	0.351
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	15mm	Ant 4	DSI 7	55830	3609	22.20	22.50	1.072	62.9	1.006	-0.01	0.145	0.156
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	15mm	Ant 4	DSI 7	55830	3609	22.20	22.50	1.072	62.9	1.006	-0.16	0.163	0.176
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	15mm	Ant 4	DSI 7	55830	3609	22.18	22.50	1.076	62.9	1.006	-0.06	0.150	0.162
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	15mm	Ant 4	DSI 7	55830	3609	22.18	22.50	1.076	62.9	1.006	0.11	0.165	0.179
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	15mm	Ant 5	DSI 7	55830	3609	22.82	23.50	1.169	62.9	1.006	-0.03	0.057	0.067
	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	15mm	Ant 5	DSI 7	55830	3609	22.82	23.50	1.169	62.9	1.006	0.08	0.113	0.133
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	15mm	Ant 5	DSI 7	55830	3609	22.01	22.50	1.119	62.9	1.006	0.05	0.073	0.082
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	15mm	Ant 5	DSI 7	55830	3609	22.01	22.50	1.119	62.9	1.006	0.15	0.129	0.145
	LTE Band 48	20M	QPSK	1	0	DFT-30	Front	15mm	Ant 6	DSI 7	55830	3609	21.98	22.50	1.127	62.9	1.006	-0.16	0.202	0.229
67	LTE Band 48	20M	QPSK	1	0	DFT-30	Back	15mm	Ant 6	DSI 7	55830	3609	21.98	22.50	1.127	62.9	1.006	0	0.426	0.483
	LTE Band 48	20M	QPSK	50	0	DFT-30	Front	15mm	Ant 6	DSI 7	55830	3609	21.11	21.50	1.094	62.9	1.006	0.11	0.194	0.214
	LTE Band 48	20M	QPSK	50	0	DFT-30	Back	15mm	Ant 6	DSI 7	55830	3609	21.11	21.50	1.094	62.9	1.006	0.13	0.401	0.441
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	DSI 7	641666	3624.99	18.30	19.00	1.175	-	-	-0.13	0.152	0.179
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	DSI 7	641666	3624.99	18.30	19.00	1.175	-	-	-0.03	0.306	0.360
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 3	DSI 7	641666	3624.99	18.24	19.00	1.191	-	-	0.12	0.134	0.160
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 3	DSI 7	641666	3624.99	18.24	19.00	1.191	-	-	0.11	0.296	0.353
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	DSI 7	641666	3624.99	19.69	20.50	1.205	-	-	-0.02	0.133	0.160
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	DSI 7	641666	3624.99	19.69	20.50	1.205	-	-	0.1	0.317	0.382
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 4	DSI 7	641666	3624.99	19.67	20.50	1.211	-	-	0.06	0.128	0.155
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 4	DSI 7	641666	3624.99	19.67	20.50	1.211	-	-	0.04	0.302	0.366
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	DSI 7	641666	3624.99	21.62	22.50	1.225	-	-	0.14	0.157	0.192
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	DSI 7	641666	3624.99	21.62	22.50	1.225	-	-	-0.1	0.358	0.438
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 5	DSI 7	641666	3624.99	21.28	22.50	1.324	-	-	0.16	0.164	0.217
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 5	DSI 7	641666	3624.99	21.28	22.50	1.324	-	-	-0.01	0.369	0.489
	FR1 n48	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	DSI 7	641666	3624.99	21.38	22.50	1.294	-	-	-0.11	0.400	0.518
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 7	641666	3624.99	21.38	22.50	1.294	-	-	0.14	0.678	0.877
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 7	638000	3570	21.35	22.50	1.303	-	-	0.01	0.661	0.861
68	FR1 n48	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 7	645332	3679.98	21.32	22.50	1.312	-	-	-0.1	0.687	0.901
	FR1 n48	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 6	DSI 7	641666	3624.99	20.68	22.50	1.521	-	-	-0.02	0.336	0.511
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 6	DSI 7	641666	3624.99	20.68	22.50	1.521	-	-	-0.12	0.569	0.865
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 6	DSI 7	638000	3570	20.55	22.50	1.567	-	-	0.12	0.546	0.855
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 6	DSI 7	645332	3679.98	20.57	22.50	1.560	-	-	-0.01	0.572	0.892
	FR1 n48	40M	QPSK	100	0	DFT-30	Back	15mm	Ant 6	DSI 7	641666	3624.99	20.20	21.50	1.349	-	-	-0.13	0.548	0.739
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	DSI 7	641666	3624.99	18.58	19.50	1.236	-	-	-0.04	0.125	0.154
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	DSI 7	641666	3624.99	18.58	19.50	1.236	-	-	-0.1	0.234	0.289
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	DSI 7	641666	3624.99	18.54	19.50	1.247	-	-	0.13	0.120	0.150
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	DSI 7	641666	3624.99	18.54	19.50	1.247	-	-	-0.15	0.228	0.284
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	DSI 7	633332	3499.98	18.50	19.50	1.259	-	-	0.05	0.161	0.203
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	DSI 7	633332	3499.98	18.50	19.50	1.259	-	-	0.01	0.287	0.361
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	DSI 7	633332	3499.98	18.48	19.50	1.265	-	-	-0.05	0.158	0.200
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	DSI 7	633332	3499.98	18.48	19.50	1.265	-	-	0.12	0.272	0.344
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 3	DSI 7	656000	3840	18.43	19.50	1.279	-	-	-0.12	0.143	0.183
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 3	DSI 7	656000	3840	18.43	19.50	1.279	-	-	0.13	0.261	0.334
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 3	DSI 7	656000	3840	18.39	19.50	1.291	-	-	0.06	0.138	0.178
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 3	DSI 7	656000	3840	18.39	19.50	1.291	-	-	0.05	0.255	0.329
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	DSI 7	641666	3624.99	20.45	21.00	1.135	-	-	-0.15	0.167	0.190
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	DSI 7	641666	3624.99	20.45	21.00	1.135	-	-	-0.05	0.352	0.400
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 4	DSI 7	641666	3624.99	20.41	21.00	1.146	-	-	0.11	0.161	0.184
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 4	DSI 7	641666	3624.99	20.41	21.00	1.146	-	-	-0.03	0.324	0.371



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	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	DSI 7	633332	3499.98	20.35	21.00	1.161	-	-	0	0.161	0.187
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	DSI 7	633332	3499.98	20.35	21.00	1.161	-	-	-0.03	0.382	0.444
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 4	DSI 7	633332	3499.98	20.32	21.00	1.169	-	-	0.09	0.152	0.178
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 4	DSI 7	633332	3499.98	20.32	21.00	1.169	-	-	0	0.375	0.439
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 4	DSI 7	656000	3840	20.30	21.00	1.175	-	-	0.08	0.195	0.229
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 4	DSI 7	656000	3840	20.30	21.00	1.175	-	-	-0.09	0.348	0.409
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 4	DSI 7	656000	3840	20.26	21.00	1.186	-	-	0.04	0.209	0.248
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 4	DSI 7	656000	3840	20.26	21.00	1.186	-	-	0.1	0.358	0.425
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 4	DSI 7	656000	3840	20.24	21.00	1.191	-	-	0.06	0.341	0.406
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	DSI 7	641666	3624.99	20.52	21.00	1.117	-	-	-0.15	0.168	0.188
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	DSI 7	641666	3624.99	20.52	21.00	1.117	-	-	0.16	0.328	0.366
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	DSI 7	641666	3624.99	20.49	21.00	1.125	-	-	0.08	0.157	0.177
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	DSI 7	641666	3624.99	20.49	21.00	1.125	-	-	-0.06	0.311	0.350
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	DSI 7	633332	3499.98	20.40	21.00	1.148	-	-	0.07	0.229	0.263
69	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	DSI 7	633332	3499.98	20.40	21.00	1.148	-	-	0.04	0.393	0.451
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	DSI 7	633332	3499.98	20.38	21.00	1.153	-	-	0.02	0.215	0.248
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	DSI 7	633332	3499.98	20.38	21.00	1.153	-	-	0.08	0.373	0.430
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	DSI 7	656000	3840	20.47	21.00	1.130	-	-	-0.12	0.166	0.188
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	DSI 7	656000	3840	20.47	21.00	1.130	-	-	0.11	0.250	0.282
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	DSI 7	656000	3840	20.44	21.00	1.138	-	-	-0.04	0.142	0.162
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	DSI 7	656000	3840	20.44	21.00	1.138	-	-	-0.09	0.200	0.228
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	DSI 7	641666	3624.99	18.31	19.00	1.172	-	-	-0.08	0.177	0.207
	FR1 n77 Part96	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 7	641666	3624.99	18.31	19.00	1.172	-	-	0.02	0.313	0.367
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	DSI 7	641666	3624.99	18.28	19.00	1.180	-	-	0.09	0.195	0.230
	FR1 n77 Part96	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	DSI 7	641666	3624.99	18.28	19.00	1.180	-	-	-0.06	0.324	0.382
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	DSI 7	633332	3499.98	18.25	19.00	1.189	-	-	0.06	0.124	0.147
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 7	633332	3499.98	18.25	19.00	1.189	-	-	0.09	0.210	0.250
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	DSI 7	633332	3499.98	18.18	19.00	1.208	-	-	0.1	0.153	0.185
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	DSI 7	633332	3499.98	18.18	19.00	1.208	-	-	0.06	0.239	0.289
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	DSI 7	656000	3840	18.32	19.00	1.169	-	-	-0.16	0.199	0.233
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 7	656000	3840	18.32	19.00	1.169	-	-	-0.14	0.315	0.368
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	DSI 7	656000	3840	18.22	19.00	1.197	-	-	-0.16	0.178	0.213
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	DSI 7	656000	3840	18.22	19.00	1.197	-	-	-0.1	0.273	0.327



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN2.4GHz																
70	Bluetooth	DH5 1Mbps	Front	15mm	Ant 6	Power level 1/2/3	39	2441	17.80	18.00	1.047	76.53	1.307	0.06	0.105	0.144
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 6	Power level 1/2/3	39	2441	17.80	18.00	1.047	76.53	1.307	-0.06	0.180	0.246
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 7	Power level 1/2/3	39	2441	17.10	18.00	1.230	76.53	1.307	-0.09	0.080	0.129
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power level 1/2/3	39	2441	17.10	18.00	1.230	76.53	1.307	-0.07	0.110	0.177
71	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 6+7	Power level 1/2	1	2412	19.91	21.00	1.285	98.53	1.015	-0.11	0.202	0.264
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 6+7	Power level 1/2	1	2412	19.91	21.00	1.285	98.53	1.015	-0.04	0.390	0.509
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 6+7	Power level 3	1	2412	16.86	18.00	1.300	98.53	1.015	-0.11	0.109	0.144
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 6+7	Power level 3	1	2412	16.86	18.00	1.300	98.53	1.015	0.09	0.187	0.247
WLAN5GHz																
72	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	0.09	0.218	0.305
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	-0.02	0.490	0.686
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 5+6	Power level 2	50	5250	16.59	18.00	1.384	99.54	1.005	0.06	0.112	0.156
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 5+6	Power level 2	50	5250	16.59	18.00	1.384	99.54	1.005	0.09	0.243	0.338
73	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 5+6	Power level 3	50	5250	15.60	17.00	1.380	99.54	1.005	0.05	0.092	0.128
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 5+6	Power level 3	50	5250	15.60	17.00	1.380	99.54	1.005	-0.04	0.202	0.280
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	0.04	0.269	0.377
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	-0.06	0.490	0.687
74	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 5+6	Power level 2/3	114	5570	15.22	17.00	1.507	99.54	1.005	0.07	0.121	0.183
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 5+6	Power level 2/3	114	5570	15.22	17.00	1.507	99.54	1.005	0.03	0.191	0.289
	WLAN5.8GHz	802.11a 6Mbps	Front	15mm	Ant 5+6	Power level 1	149	5745	19.44	20.50	1.276	99.06	1.009	-0.15	0.251	0.323
	WLAN5.8GHz	802.11a 6Mbps	Back	15mm	Ant 5+6	Power level 1	149	5745	19.44	20.50	1.276	99.06	1.009	-0.01	0.515	0.663
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 5+6	Power level 2	155	5775	17.85	19.50	1.462	99.63	1.004	0.02	0.211	0.310
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 5+6	Power level 2	155	5775	17.85	19.50	1.462	99.63	1.004	0.06	0.406	0.596
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 5+6	Power level 3	155	5775	14.79	16.50	1.483	99.63	1.004	0.01	0.101	0.150
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 5+6	Power level 3	155	5775	14.79	16.50	1.483	99.63	1.004	0.05	0.196	0.292



15.4 Product specific 10g SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
750MHz																				
75	LTE Band 12	10M	QPSK	1	0	-	Left Side	0mm	Ant 1	DSI 7	23095	707.5	24.15	25.00	1.216	-	-	-0.03	0.964	1.172
	LTE Band 12	10M	QPSK	25	0	-	Left Side	0mm	Ant 1	DSI 7	23095	707.5	23.12	24.00	1.225	-	-	-0.07	0.954	1.168
76	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 1	DSI 7	141500	707.5	23.48	25.00	1.419	-	-	0.12	1.000	1.419
	FR1 n12	15M	QPSK	18	10	DFT-15	Left Side	0mm	Ant 1	DSI 7	141500	707.5	23.44	25.00	1.432	-	-	-0.14	0.966	1.383
835MHz																				
77	GSM850	-	-	-	-	GPRS(4 Tx slots)	Left Side	0mm	Ant 1	DSI 7	251	848.8	25.80	27.50	1.479	-	-	-0.11	0.693	1.025
78	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 1	DSI 7	4182	836.4	24.11	25.00	1.227	-	-	0.09	1.380	1.694
79	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 1	DSI 7	167300	836.5	23.74	25.00	1.337	-	-	-0.03	1.160	1.550
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 1	DSI 7	167300	836.5	23.71	25.00	1.346	-	-	0.02	1.110	1.494
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 2	DSI 7	1413	1732.6	22.84	23.50	1.164	-	-	-0.15	2.280	2.654
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 7	1413	1732.6	22.84	23.50	1.164	-	-	-0.03	2.420	2.817
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 7	1413	1732.6	22.84	23.50	1.164	-	-	-0.15	1.080	1.257
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 2	DSI 7	1312	1712.4	22.82	23.50	1.169	-	-	0.1	2.150	2.514
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 2	DSI 7	1513	1752.6	22.77	23.50	1.183	-	-	0.02	2.090	2.473
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 7	1312	1712.4	22.82	23.50	1.169	-	-	-0.05	2.300	2.690
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 7	1513	1752.6	22.77	23.50	1.183	-	-	-0.15	2.310	2.733
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 2	DSI 8	1413	1732.6	21.85	22.50	1.161	-	-	0.09	1.930	2.242
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 3	DSI 7	1413	1732.6	22.18	23.00	1.208	-	-	-0.1	2.500	3.020
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 3	DSI 7	1413	1732.6	22.18	23.00	1.208	-	-	-0.07	2.010	2.428
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 3	DSI 7	1312	1712.4	22.15	23.00	1.216	-	-	-0.01	2.480	3.016
80	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 3	DSI 7	1513	1752.6	22.12	23.00	1.225	-	-	-0.05	2.510	3.074
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 3	DSI 7	1312	1712.4	22.15	23.00	1.216	-	-	-0.13	1.860	2.262
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 3	DSI 7	1513	1752.6	22.12	23.00	1.225	-	-	0.01	1.970	2.412
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 3	DSI 8	1513	1752.6	20.62	21.50	1.225	-	-	-0.11	1.820	2.229
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 7	1413	1732.6	21.69	22.50	1.205	-	-	-0.03	2.210	2.663
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 7	1312	1712.4	21.62	22.50	1.225	-	-	0.11	2.030	2.486
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 7	1513	1752.6	21.66	22.50	1.213	-	-	-0.14	2.270	2.754
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 8	1513	1752.6	20.65	21.50	1.216	-	-	0.01	1.820	2.213
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 7	132322	1745	23.00	24.00	1.259	-	-	-0.04	2.210	2.782
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 2	DSI 7	132322	1745	23.00	24.00	1.259	-	-	0.01	0.897	1.129
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 7	132072	1720	22.87	24.00	1.297	-	-	-0.05	2.120	2.750
81	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 7	132572	1770	22.85	24.00	1.303	-	-	0.09	2.340	3.049
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 2	DSI 8	132572	1770	21.88	23.00	1.294	-	-	0.12	1.790	2.317
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 7	132322	1745	22.37	23.50	1.297	-	-	-0.11	2.150	2.789
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 2	DSI 7	132322	1745	22.37	23.50	1.297	-	-	-0.14	0.876	1.136
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 7	132072	1720	22.22	23.50	1.343	-	-	-0.08	2.060	2.766
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 2	DSI 7	132572	1770	22.29	23.50	1.321	-	-	-0.07	2.210	2.920
	LTE Band 66	20M	QPSK	100	0	-	Back	0mm	Ant 2	DSI 7	132322	1745	22.36	23.50	1.300	-	-	0.16	2.100	2.730
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	132322	1745	22.00	23.00	1.259	-	-	-0.02	2.090	2.631
	LTE Band 66	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	132322	1745	22.00	23.00	1.259	-	-	0.03	1.910	2.405
	LTE Band 66	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	132072	1720	21.80	23.00	1.318	-	-	0.15	1.790	2.360
	LTE Band 66	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	132572	1770	21.90	23.00	1.288	-	-	-0.15	2.020	2.602
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	132072	1720	21.80	23.00	1.318	-	-	0.12	1.980	2.610
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	132572	1770	21.90	23.00	1.288	-	-	0.05	2.290	2.950
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 8	132572	1770	20.94	22.00	1.276	-	-	-0.05	1.750	2.234
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	132322	1745	21.95	23.00	1.274	-	-	0.13	2.010	2.560
	LTE Band 66	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	132322	1745	21.95	23.00	1.274	-	-	-0.15	1.860	2.369
	LTE Band 66	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	132072	1720	21.78	23.00	1.324	-	-	-0.13	1.750	2.318
	LTE Band 66	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	132572	1770	21.85	23.00	1.303	-	-	-0.08	1.940	2.528



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	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	132072	1720	21.78	23.00	1.324	-	-	0.16	1.900	2.516
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	132572	1770	21.85	23.00	1.303	-	-	0.05	2.190	2.854
	LTE Band 66	20M	QPSK	100	0	-	Back	0mm	Ant 3	DSI 7	132322	1745	21.87	23.00	1.297	-	-	0.07	1.970	2.555
	LTE Band 66	20M	QPSK	100	0	-	Left Side	0mm	Ant 3	DSI 7	132322	1745	21.87	23.00	1.297	-	-	-0.15	1.880	2.439
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	132322	1745	22.10	23.00	1.230	-	-	0.04	2.170	2.670
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	132072	1720	21.88	23.00	1.294	-	-	0.06	2.090	2.705
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	132572	1770	22.05	23.00	1.245	-	-	0.08	2.360	2.937
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 8	132572	1770	21.09	22.00	1.233	-	-	-0.05	1.820	2.244
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	132322	1745	22.08	23.00	1.236	-	-	0.02	2.100	2.595
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	132072	1720	21.85	23.00	1.303	-	-	-0.13	2.010	2.619
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	132572	1770	22.02	23.00	1.253	-	-	-0.12	2.250	2.820
	LTE Band 66	20M	QPSK	100	0	-	Top Side	0mm	Ant 4	DSI 7	132322	1745	22.02	23.00	1.253	-	-	0.14	2.030	2.544
	FR1 n66	30M	QPSK	1	1	DFT-15	Back	0mm	Ant 2	DSI 7	349000	1745	22.61	23.50	1.227	-	-	-0.02	2.020	2.479
	FR1 n66	30M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	349000	1745	22.61	23.50	1.227	-	-	-0.13	0.842	1.034
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	0mm	Ant 2	DSI 7	349000	1745	22.58	23.50	1.236	-	-	0.12	2.160	2.670
	FR1 n66	30M	QPSK	36	21	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	349000	1745	22.58	23.50	1.236	-	-	-0.1	0.837	1.034
	FR1 n66	30M	QPSK	36	21	DFT-15	Back	0mm	Ant 2	DSI 8	349000	1745	21.54	22.50	1.247	-	-	0.14	1.960	2.445
	FR1 n66	30M	QPSK	75	0	DFT-15	Back	0mm	Ant 2	DSI 7	349000	1745	22.54	23.50	1.247	-	-	-0.09	2.050	2.557
	FR1 n66	30M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 7	349000	1745	22.62	23.50	1.225	-	-	-0.02	2.310	2.829
82	FR1 n66	30M	QPSK	36	21	DFT-15	Top Side	0mm	Ant 4	DSI 7	349000	1745	22.54	23.50	1.247	-	-	0.11	2.420	3.019
	FR1 n66	30M	QPSK	36	21	DFT-15	Top Side	0mm	Ant 4	DSI 8	349000	1745	21.58	22.50	1.236	-	-	-0.08	1.900	2.348
	FR1 n66	30M	QPSK	75	0	DFT-15	Top Side	0mm	Ant 4	DSI 7	349000	1745	22.49	23.50	1.262	-	-	0.15	2.280	2.877
1900MHz																				
83	GSM1900	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	0mm	Ant 2	DSI 7	810	1909.8	23.32	24.50	1.312	-	-	0	1.150	1.509
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 7	9400	1880	21.88	22.50	1.153	-	-	-0.16	1.830	2.111
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 7	9262	1852.4	21.83	22.50	1.167	-	-	0.06	1.940	2.264
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 2	DSI 7	9538	1907.6	21.80	22.50	1.175	-	-	0.12	2.090	2.456
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 3	DSI 7	9400	1880	22.09	23.00	1.233	-	-	-0.13	1.890	2.331
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 3	DSI 7	9262	1852.4	22.00	23.00	1.259	-	-	-0.1	2.280	2.870
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 3	DSI 7	9538	1907.6	22.02	23.00	1.253	-	-	-0.15	1.970	2.469
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	0mm	Ant 3	DSI 8	9262	1852.4	21.06	22.00	1.242	-	-	0.04	1.790	2.223
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 7	9400	1880	21.43	22.50	1.279	-	-	-0.1	2.050	2.623
84	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 7	9262	1852.4	21.39	22.50	1.291	-	-	0.01	2.320	2.996
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 7	9538	1907.6	21.35	22.50	1.303	-	-	-0.1	2.110	2.750
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	0mm	Ant 4	DSI 8	9262	1852.4	20.35	21.50	1.303	-	-	0.03	1.730	2.254
	LTE Band 2	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	DSI 7	18900	1880	22.10	23.00	1.230	-	-	0.04	1.780	2.190
	LTE Band 2	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	DSI 7	18700	1860	22.01	23.00	1.256	-	-	-0.08	1.750	2.198
	LTE Band 2	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	DSI 7	19100	1900	22.04	23.00	1.247	-	-	-0.04	1.820	2.270
	LTE Band 2	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	DSI 7	18900	1880	22.06	23.00	1.242	-	-	0.01	1.710	2.123
	LTE Band 2	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	DSI 7	18700	1860	21.99	23.00	1.262	-	-	-0.16	1.680	2.120
	LTE Band 2	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	DSI 7	19100	1900	22.00	23.00	1.259	-	-	0.05	1.740	2.191
	LTE Band 2	20M	QPSK	100	0		Bottom Side	0mm	Ant 2	DSI 7	18900	1880	22.02	23.00	1.253	-	-	-0.16	1.670	2.093
	LTE Band 2	20M	QPSK	1	0		Left Side	0mm	Ant 3	DSI 7	18900	1880	22.40	23.50	1.288	-	-	-0.08	1.890	2.435
85	LTE Band 2	20M	QPSK	1	0		Left Side	0mm	Ant 3	DSI 7	18700	1860	22.30	23.50	1.318	-	-	-0.1	2.360	3.111
	LTE Band 2	20M	QPSK	1	0		Left Side	0mm	Ant 3	DSI 7	19100	1900	22.20	23.50	1.349	-	-	0.12	2.060	2.779
	LTE Band 2	20M	QPSK	1	0		Left Side	0mm	Ant 3	DSI 8	18700	1860	20.76	22.00	1.330	-	-	0.02	1.610	2.142
	LTE Band 2	20M	QPSK	50	0		Left Side	0mm	Ant 3	DSI 7	18900	1880	22.37	23.50	1.297	-	-	0	1.830	2.374
	LTE Band 2	20M	QPSK	50	0		Left Side	0mm	Ant 3	DSI 7	18700	1860	22.26	23.50	1.330	-	-	-0.08	2.270	3.020
	LTE Band 2	20M	QPSK	50	0		Left Side	0mm	Ant 3	DSI 7	19100	1900	22.18	23.50	1.355	-	-	0.11	1.890	2.561
	LTE Band 2	20M	QPSK	100	0		Left Side	0mm	Ant 3	DSI 7	18900	1880	22.30	23.50	1.318	-	-	0.14	1.760	2.320
	LTE Band 2	20M	QPSK	1	0		Top Side	0mm	Ant 4	DSI 7	18900	1880	21.77	23.00	1.327	-	-	-0.07	2.090	2.774
	LTE Band 2	20M	QPSK	1	0		Top Side	0mm	Ant 4	DSI 7	18700	1860	21.69	23.00	1.352	-	-	0.16	2.250	3.042
	LTE Band 2	20M	QPSK	1	0		Top Side	0mm	Ant 4	DSI 7	19100	1900	21.65	23.00	1.365	-	-	0.12	1.980	2.702
	LTE Band 2	20M	QPSK	1	0		Top Side	0mm	Ant 4	DSI 8	18700	1860	20.71	22.00	1.346	-	-	0.06	1.770	2.382
	LTE Band 2	20M	QPSK	50	0		Top Side	0mm	Ant 4	DSI 7	18900	1880	21.70	23.00	1.349	-	-	-0.01	2.040	2.752
	LTE Band 2	20M	QPSK	50	0		Top Side	0mm	Ant 4	DSI 7	18700	1860	21.68	23.00	1.355	-	-	0.01	2.200	2.981



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	LTE Band 2	20M	QPSK	50	0		Top Side	0mm	Ant 4	DSI 7	19100	1900	21.63	23.00	1.371	-	-	-0.15	1.900	2.605
	LTE Band 2	20M	QPSK	100	0		Top Side	0mm	Ant 4	DSI 7	18900	1880	21.64	23.00	1.368	-	-	0.15	1.940	2.653
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	376000	1880	20.96	22.00	1.271	-	-	-0.11	1.610	2.046
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	372000	1860	20.83	22.00	1.309	-	-	-0.01	1.580	2.069
	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	380000	1900	20.84	22.00	1.306	-	-	0.12	1.630	2.129
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	376000	1880	20.95	22.00	1.274	-	-	0.16	1.670	2.127
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	372000	1860	20.80	22.00	1.318	-	-	0.09	1.610	2.122
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	380000	1900	20.83	22.00	1.309	-	-	0.11	1.690	2.213
	FR1 n2	20M	QPSK	100	0	DFT-15	Bottom Side	0mm	Ant 2	DSI 7	376000	1880	20.84	22.00	1.306	-	-	0.1	1.570	2.051
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 3	DSI 7	376000	1880	22.50	23.50	1.259	-	-	-0.01	2.100	2.644
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 3	DSI 7	372000	1860	22.40	23.50	1.288	-	-	0.07	2.200	2.834
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 3	DSI 7	380000	1900	22.43	23.50	1.279	-	-	0.1	1.840	2.354
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 3	DSI 7	376000	1880	22.44	23.50	1.276	-	-	-0.11	2.190	2.795
86	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 3	DSI 7	372000	1860	22.39	23.50	1.291	-	-	0.03	2.340	3.021
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 3	DSI 7	380000	1900	22.35	23.50	1.303	-	-	-0.1	1.880	2.450
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 3	DSI 8	372000	1860	21.34	22.50	1.306	-	-	0.09	1.850	2.416
	FR1 n2	20M	QPSK	100	0	DFT-15	Left Side	0mm	Ant 3	DSI 7	376000	1880	22.20	23.50	1.349	-	-	-0.09	1.980	2.671
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	0mm	Ant 4	DSI 7	376000	1880	21.68	23.00	1.355	-	-	0.11	1.410	1.911
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 7	376000	1880	21.68	23.00	1.355	-	-	0.03	1.870	2.534
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	0mm	Ant 4	DSI 7	372000	1860	21.57	23.00	1.390	-	-	-0.08	1.520	2.113
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	0mm	Ant 4	DSI 7	380000	1900	21.61	23.00	1.377	-	-	0.09	1.440	1.983
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 7	372000	1860	21.57	23.00	1.390	-	-	0.14	2.000	2.780
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 7	380000	1900	21.61	23.00	1.377	-	-	0.01	1.880	2.589
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	0mm	Ant 4	DSI 7	376000	1880	21.64	23.00	1.368	-	-	-0.16	1.490	2.038
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 4	DSI 7	376000	1880	21.64	23.00	1.368	-	-	0.03	1.980	2.708
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	0mm	Ant 4	DSI 7	372000	1860	21.49	23.00	1.416	-	-	0	1.550	2.194
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	0mm	Ant 4	DSI 7	376000	1880	21.57	23.00	1.390	-	-	0.15	1.490	2.071
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 4	DSI 7	372000	1860	21.49	23.00	1.416	-	-	0.11	2.070	2.931
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 4	DSI 7	380000	1900	21.57	23.00	1.390	-	-	0.16	1.910	2.655
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 4	DSI 8	372000	1860	20.56	22.00	1.393	-	-	0.04	1.660	2.313
	FR1 n2	20M	QPSK	100	0	DFT-15	Back	0mm	Ant 4	DSI 7	376000	1880	21.58	23.00	1.387	-	-	0.12	1.330	1.844
	FR1 n2	20M	QPSK	100	0	DFT-15	Top Side	0mm	Ant 4	DSI 7	376000	1880	21.58	23.00	1.387	-	-	-0.14	1.870	2.593
2600MHz																				
87	LTE Band 7	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	21100	2535	20.78	21.50	1.180	-	-	0.15	2.380	2.809
	LTE Band 7	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	20850	2510	20.70	21.50	1.202	-	-	-0.11	2.220	2.669
	LTE Band 7	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	21350	2560	20.72	21.50	1.197	-	-	0.11	2.160	2.585
	LTE Band 7	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 8	21100	2535	19.79	20.50	1.178	-	-	0.15	1.890	2.226
	LTE Band 7	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	21100	2535	20.75	21.50	1.189	-	-	-0.01	2.350	2.793
	LTE Band 7	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	20850	2510	20.69	21.50	1.205	-	-	-0.16	2.130	2.567
	LTE Band 7	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	21350	2560	20.70	21.50	1.202	-	-	0.02	2.050	2.465
	LTE Band 7	20M	QPSK	100	0	-	Left Side	0mm	Ant 3	DSI 7	21100	2535	20.71	21.50	1.199	-	-	0.07	2.170	2.603
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	39750	2506	24.13	24.50	1.089	62.9	1.006	0.11	2.180	2.388
	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	39750	2506	24.13	24.50	1.089	62.9	1.006	0.03	2.330	2.552
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	40185	2549.5	23.86	24.50	1.159	62.9	1.006	-0.16	2.320	2.704
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	40620	2593	23.90	24.50	1.148	62.9	1.006	0.07	2.080	2.402
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	41055	2636.5	24.10	24.50	1.096	62.9	1.006	-0.02	1.940	2.140
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 3	DSI 7	41490	2680	23.76	24.50	1.186	62.9	1.006	-0.07	1.790	2.135
88	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	40185	2549.5	23.86	24.50	1.159	62.9	1.006	0.14	2.670	3.112
	LTE Band 41C	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	40185+39987	2549.5+2529.7	23.52	24.50	1.253	62.9	1.006	0.05	2.320	2.925
	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	40620	2593	23.90	24.50	1.148	62.9	1.006	0.15	2.310	2.668
	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	41055	2636.5	24.10	24.50	1.096	62.9	1.006	-0.11	2.150	2.372
	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	41490	2680	23.76	24.50	1.186	62.9	1.006	0.16	1.910	2.278
	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 8	40185	2549.5	23.14	23.50	1.086	62.9	1.006	0.08	2.210	2.415
	LTE Band 41C	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 8	40185+39987	2549.5+2529.7	23.10	23.50	1.096	62.9	1.006	-0.03	2.080	2.294
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	39750	2506	23.12	23.50	1.091	62.9	1.006	0.1	2.100	2.306



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	LTE Band 41	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	39750	2506	23.12	23.50	1.091	62.9	1.006	-0.16	2.210	2.427
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	40185	2549.5	23.07	23.50	1.104	62.9	1.006	0.16	2.230	2.477
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	40620	2593	23.08	23.50	1.102	62.9	1.006	-0.1	1.980	2.194
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	41055	2636.5	23.10	23.50	1.096	62.9	1.006	0.1	1.830	2.019
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 3	DSI 7	41490	2680	23.10	23.50	1.096	62.9	1.006	0.1	1.720	1.897
	LTE Band 41	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	40185	2549.5	23.07	23.50	1.104	62.9	1.006	0.08	2.530	2.810
	LTE Band 41	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	40620	2593	23.08	23.50	1.102	62.9	1.006	0.01	2.210	2.449
	LTE Band 41	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	41055	2636.5	23.10	23.50	1.096	62.9	1.006	-0.16	2.020	2.228
	LTE Band 41	20M	QPSK	50	0	-	Left Side	0mm	Ant 3	DSI 7	41490	2680	23.10	23.50	1.096	62.9	1.006	-0.12	1.810	1.997
	LTE Band 41	20M	QPSK	100	0	-	Back	0mm	Ant 3	DSI 7	39750	2506	22.98	23.50	1.127	62.9	1.006	-0.01	2.010	2.279
	LTE Band 41	20M	QPSK	100	0	-	Left Side	0mm	Ant 3	DSI 7	39750	2506	22.98	23.50	1.127	62.9	1.006	-0.09	2.150	2.438
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	39750	2506	22.80	23.00	1.047	62.9	1.006	0.06	2.380	2.507
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	40185	2549.5	22.77	23.00	1.054	62.9	1.006	-0.02	2.630	2.790
	LTE Band 41C	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	40185+39987	2549.5+2529.7	22.70	23.00	1.072	62.9	1.006	0.09	2.460	2.652
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	40620	2593	22.60	23.00	1.096	62.9	1.006	0.03	2.410	2.658
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	41055	2636.5	22.65	23.00	1.084	62.9	1.006	-0.04	2.360	2.573
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 7	41490	2680	22.58	23.00	1.102	62.9	1.006	0.1	2.200	2.438
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 8	40185	2549.5	21.72	22.00	1.067	62.9	1.006	-0.13	2.100	2.253
	LTE Band 41C	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 8	40185+39987	2549.5+2529.7	21.65	22.00	1.084	62.9	1.006	0.08	1.940	2.115
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	39750	2506	22.77	23.00	1.054	62.9	1.006	0.03	2.310	2.450
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	40185	2549.5	22.72	23.00	1.067	62.9	1.006	0.08	2.530	2.715
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	40620	2593	22.59	23.00	1.099	62.9	1.006	-0.04	2.380	2.631
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	41055	2636.5	22.61	23.00	1.094	62.9	1.006	0.03	2.290	2.520
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 7	41490	2680	22.57	23.00	1.104	62.9	1.006	-0.03	2.130	2.366
	LTE Band 41	20M	QPSK	100	0	-	Top Side	0mm	Ant 4	DSI 7	39750	2506	22.75	23.00	1.059	62.9	1.006	-0.15	2.290	2.440
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 3	DSI 7	507000	2535	21.58	22.00	1.102	-	-	-0.06	2.520	2.776
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 3	DSI 7	502000	2510	21.53	22.00	1.114	-	-	0.16	2.380	2.652
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 3	DSI 7	512000	2560	21.51	22.00	1.119	-	-	0.09	2.230	2.496
	FR1 n7	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 3	DSI 8	507000	2535	20.54	21.00	1.112	-	-	0.07	2.000	2.223
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 3	DSI 7	507000	2535	21.56	22.00	1.107	-	-	0.09	2.470	2.733
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 3	DSI 7	502000	2510	21.50	22.00	1.122	-	-	0.07	2.260	2.536
	FR1 n7	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 3	DSI 7	512000	2560	21.46	22.00	1.132	-	-	-0.08	2.170	2.457
	FR1 n7	20M	QPSK	100	0	DFT-15	Left Side	0mm	Ant 3	DSI 7	507000	2535	21.51	22.00	1.119	-	-	0.16	2.330	2.608
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	0mm	Ant 4	DSI 7	507000	2535	20.98	21.50	1.127	-	-	0.15	1.840	2.074
	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 7	507000	2535	20.98	21.50	1.127	-	-	-0.05	2.320	2.615
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	0mm	Ant 4	DSI 7	502000	2510	20.91	21.50	1.146	-	-	-0.02	1.940	2.222
	FR1 n7	20M	QPSK	1	1	DFT-15	Back	0mm	Ant 4	DSI 7	512000	2560	20.88	21.50	1.153	-	-	-0.08	1.830	2.111
89	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 7	502000	2510	20.91	21.50	1.146	-	-	-0.05	2.580	2.955
	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 7	512000	2560	20.88	21.50	1.153	-	-	-0.09	2.300	2.653
	FR1 n7	20M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 4	DSI 8	502000	2510	19.88	20.50	1.153	-	-	-0.13	2.060	2.376
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	0mm	Ant 4	DSI 7	507000	2535	20.93	21.50	1.140	-	-	0.11	1.780	2.030
	FR1 n7	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 4	DSI 7	507000	2535	20.93	21.50	1.140	-	-	0.1	2.240	2.554
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	0mm	Ant 4	DSI 7	502000	2510	20.86	21.50	1.159	-	-	0.03	1.850	2.144
	FR1 n7	20M	QPSK	50	28	DFT-15	Back	0mm	Ant 4	DSI 7	512000	2560	20.85	21.50	1.161	-	-	0.02	1.790	2.079
	FR1 n7	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 4	DSI 7	502000	2510	20.86	21.50	1.159	-	-	-0.01	2.370	2.746
	FR1 n7	20M	QPSK	50	28	DFT-15	Top Side	0mm	Ant 4	DSI 7	512000	2560	20.85	21.50	1.161	-	-	-0.12	2.240	2.602
	FR1 n7	20M	QPSK	100	0	DFT-15	Back	0mm	Ant 4	DSI 7	507000	2535	20.85	21.50	1.161	-	-	0.13	1.760	2.044
	FR1 n7	20M	QPSK	100	0	DFT-15	Top Side	0mm	Ant 4	DSI 7	507000	2535	20.85	21.50	1.161	-	-	-0.14	2.190	2.544
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 3	DSI 7	518598	2592.99	21.19	22.50	1.352	-	-	-0.01	1.890	2.555
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 3	DSI 7	518598	2592.99	21.19	22.50	1.352	-	-	0.07	2.070	2.799
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 3	DSI 8	518598	2592.99	20.15	21.50	1.365	-	-	-0.08	1.600	2.183
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 3	DSI 7	518598	2592.99	21.15	22.50	1.365	-	-	0.07	1.940	2.647
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 3	DSI 7	518598	2592.99	21.15	22.50	1.365	-	-	-0.02	1.990	2.716
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 3	DSI 7	518598	2592.99	21.12	22.50	1.374	-	-	-0.04	1.810	2.487
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	518598	2592.99	21.12	22.50	1.374	-	-	-0.1	1.980	2.721



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	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 4	DSI 7	518598	2592.99	20.43	21.50	1.279	-	-	0.09	1.630	2.085
90	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 4	DSI 7	518598	2592.99	20.43	21.50	1.279	-	-	-0.16	2.220	2.840
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 4	DSI 8	518598	2592.99	19.40	20.50	1.288	-	-	-0.04	1.810	2.332
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 4	DSI 7	518598	2592.99	20.40	21.50	1.288	-	-	0.02	1.540	1.984
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 4	DSI 7	518598	2592.99	20.40	21.50	1.288	-	-	-0.11	2.070	2.667
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 4	DSI 7	518598	2592.99	20.39	21.50	1.291	-	-	0.09	1.500	1.937
	FR1 n41	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 4	DSI 7	518598	2592.99	20.39	21.50	1.291	-	-	0.06	2.000	2.582
3000MHz-4000MHz																				
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	55830	3609	21.33	21.50	1.040	62.9	1.006	0.14	2.220	2.322
91	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	55340	3560	21.27	21.50	1.054	62.9	1.006	-0.11	2.550	2.705
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	56150	3641	21.22	21.50	1.067	62.9	1.006	0.04	2.160	2.318
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	56640	3690	21.25	21.50	1.059	62.9	1.006	-0.03	2.380	2.536
	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 8	55340	3560	20.20	20.50	1.072	62.9	1.006	0.16	1.970	2.124
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	55830	3609	21.32	21.50	1.042	62.9	1.006	0.1	2.120	2.223
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	55340	3560	21.26	21.50	1.057	62.9	1.006	-0.07	2.380	2.530
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	56150	3641	21.19	21.50	1.074	62.9	1.006	-0.05	2.090	2.258
	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	56640	3690	21.21	21.50	1.069	62.9	1.006	-0.03	2.240	2.409
	LTE Band 48	20M	QPSK	100	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	55830	3609	21.27	21.50	1.054	62.9	1.006	0.08	2.090	2.217
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	0mm	Ant 6	DSI 7	641666	3624.99	21.38	22.50	1.294	-	-	0.01	1.610	2.084
92	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 6	DSI 7	641666	3624.99	21.38	22.50	1.294	-	-	0.08	2.320	3.003
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	0mm	Ant 6	DSI 7	638000	3570	21.38	22.50	1.294	-	-	-0.09	1.630	2.110
	FR1 n48	40M	QPSK	1	1	DFT-30	Back	0mm	Ant 6	DSI 7	645332	3679.98	21.38	22.50	1.294	-	-	0.06	1.550	2.006
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 6	DSI 7	638000	3570	21.38	22.50	1.294	-	-	0.1	2.210	2.860
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 6	DSI 7	645332	3679.98	21.38	22.50	1.294	-	-	-0.1	2.180	2.821
	FR1 n48	40M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 6	DSI 8	641666	3624.99	20.35	21.50	1.303	-	-	0.02	1.860	2.424
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	0mm	Ant 6	DSI 7	641666	3624.99	20.68	22.50	1.521	-	-	0.06	1.320	2.007
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Side	0mm	Ant 6	DSI 7	641666	3624.99	20.68	22.50	1.521	-	-	-0.08	1.870	2.843
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	0mm	Ant 6	DSI 7	638000	3570	20.68	22.50	1.521	-	-	-0.08	1.380	2.098
	FR1 n48	40M	QPSK	50	28	DFT-30	Back	0mm	Ant 6	DSI 7	645332	3679.98	20.68	22.50	1.521	-	-	-0.13	1.310	1.992
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Side	0mm	Ant 6	DSI 7	638000	3570	20.68	22.50	1.521	-	-	0.08	1.890	2.874
	FR1 n48	40M	QPSK	50	28	DFT-30	Right Side	0mm	Ant 6	DSI 7	645332	3679.98	20.68	22.50	1.521	-	-	-0.12	1.820	2.767
	FR1 n48	40M	QPSK	100	0	DFT-30	Back	0mm	Ant 6	DSI 7	641666	3624.99	20.20	21.50	1.349	-	-	-0.01	1.290	1.740
	FR1 n48	40M	QPSK	100	0	DFT-30	Right Side	0mm	Ant 6	DSI 7	641666	3624.99	20.20	21.50	1.349	-	-	-0.06	1.840	2.482



Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power Reduction	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WLAN5GHz																
93	WLAN5.3GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	0.09	1.140	1.596
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	0.12	1.520	2.128
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	0.01	1.680	2.352
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	0.02	2.270	3.179
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	54	5270	19.26	20.50	1.332	99.63	1.004	0.07	2.110	2.821
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 5+6	Power level 2/3	50	5250	16.59	18.00	1.384	99.54	1.005	0.09	0.526	0.731
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 5+6	Power level 2/3	50	5250	16.59	18.00	1.384	99.54	1.005	0.14	0.693	0.964
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 5+6	Power level 2/3	50	5250	16.59	18.00	1.384	99.54	1.005	-0.04	0.782	1.087
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 5+6	Power level 2/3	50	5250	16.59	18.00	1.384	99.54	1.005	0.16	1.050	1.460
94	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	0.03	1.270	1.781
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	-0.08	1.600	2.244
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	-0.09	1.790	2.511
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	0.16	2.250	3.156
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+6	Power level 1	102	5510	18.77	20.30	1.424	99.63	1.004	0	1.680	2.401
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+6	Power level 1	110	5550	18.82	20.30	1.405	99.63	1.004	0.07	1.460	2.060
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+6	Power level 1	126	5630	18.73	20.30	1.434	99.63	1.004	-0.05	1.490	2.145
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+6	Power level 1	134	5670	18.61	20.30	1.475	99.63	1.004	-0.11	1.420	2.103
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+6	Power level 1	102	5510	18.77	20.30	1.424	99.63	1.004	-0.14	1.760	2.516
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+6	Power level 1	110	5550	18.82	20.30	1.405	99.63	1.004	0.09	1.730	2.441
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+6	Power level 1	126	5630	18.73	20.30	1.434	99.63	1.004	-0.03	1.790	2.577
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+6	Power level 1	134	5670	18.61	20.30	1.475	99.63	1.004	0.06	1.710	2.532
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	102	5510	18.77	20.30	1.424	99.63	1.004	0.09	2.170	3.102
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	110	5550	18.82	20.30	1.405	99.63	1.004	0.11	1.910	2.695
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	126	5630	18.73	20.30	1.434	99.63	1.004	-0.01	1.840	2.649
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	134	5670	18.61	20.30	1.475	99.63	1.004	-0.11	1.960	2.902
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 5+6	Power level 2/3	114	5570	15.22	17.00	1.507	99.54	1.005	0.11	0.563	0.852
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 5+6	Power level 2/3	114	5570	15.22	17.00	1.507	99.54	1.005	-0.06	0.731	1.107
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 5+6	Power level 2/3	114	5570	15.22	17.00	1.507	99.54	1.005	-0.01	0.762	1.154
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 5+6	Power level 2/3	114	5570	15.22	17.00	1.507	99.54	1.005	0.09	0.942	1.426



15.5 Repeated SAR Measurement

<1g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.58	23.50	1.236	-	-	0.14	0.946	1	1.169
2nd	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.58	23.50	1.236	-	-	0.04	0.933	1.014	1.153
1st	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 5	26865	831.5	21.58	22.50	1.236	-	-	0.04	0.947	1	1.170
2nd	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	DSI 5	26865	831.5	21.58	22.50	1.236	-	-	-0.08	0.929	1.019	1.148
1st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	1413	1732.6	17.20	18.00	1.202	-	-	0.04	0.922	1	1.108
2nd	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 3	DSI 5	1413	1732.6	17.20	18.00	1.202	-	-	0.09	0.915	1.008	1.100
1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	9262	1852.4	16.40	17.50	1.288	-	-	0.08	0.909	1	1.171
2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 4	DSI 5	9262	1852.4	16.40	17.50	1.288	-	-	0.02	0.893	1.018	1.150
1st	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	21100	2535	17.25	17.50	1.059	-	-	-0.02	1.040	1	1.102
2nd	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 5	21100	2535	17.25	17.50	1.059	-	-	0.07	0.988	1.053	1.047
1st	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	56640	3690	19.93	21.00	1.279	62.9	1.006	-0.07	0.908	1	1.169
2nd	LTE Band 48	20M	QPSK	50	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	56640	3690	19.93	21.00	1.279	62.9	1.006	0.05	0.884	1.027	1.138
1st	FR1 n77 Part270	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	656000	3840	16.90	17.50	1.148	-	-	-0.04	0.903	1	1.037
2nd	FR1 n77 Part270	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	DSI 5	656000	3840	16.90	17.50	1.148	-	-	0.05	0.886	1.019	1.017
1st	FR1 n77 Part270	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	633332	3499.98	15.40	16.00	1.148	-	-	0.04	0.983	1	1.129
2nd	FR1 n77 Part270	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	633332	3499.98	15.40	16.00	1.148	-	-	0.12	0.956	1.028	1.098
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Right Side	10mm	Ant 6+7	Power level 1	6	2437	19.81	21.00	1.315	98.53	1.015	0.05	0.893	1	1.192
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Right Side	10mm	Ant 6+7	Power level 1	6	2437	19.81	21.00	1.315	98.53	1.015	0.01	0.871	1.025	1.163

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 3	DSI 7	1513	1752.6	22.12	23.00	1.225	-	-	-0.05	2.510	1	3.074
2nd	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 3	DSI 7	1513	1752.6	22.12	23.00	1.225	-	-	0.07	2.460	1.020	3.013
1st	LTE Band 2	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	18700	1860	22.30	23.50	1.318	-	-	-0.1	2.360	1	3.111
2nd	LTE Band 2	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	18700	1860	22.30	23.50	1.318	-	-	0.06	2.290	1.031	3.019
1st	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	40185	2549.5	23.86	24.50	1.159	-	-	0.14	2.670	1	3.112
2nd	LTE Band 41	20M	QPSK	1	0	-	Left Side	0mm	Ant 3	DSI 7	40185	2549.5	23.86	24.50	1.159	-	-	0.03	2.580	1.035	3.008
1st	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	55340	3560	21.27	21.50	1.054	62.9	1.006	-0.11	2.550	1	2.705
2nd	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	55340	3560	21.27	21.50	1.054	62.9	1.006	0.08	2.490	1.024	2.641
1st	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	56640	3690	21.25	21.50	1.059	62.9	1.006	-0.03	2.380	1	2.536
2nd	LTE Band 48	20M	QPSK	1	0	DFT-30	Left Side	0mm	Ant 3	DSI 7	56640	3690	21.25	21.50	1.059	62.9	1.006	0.06	2.330	1.021	2.483
1st	WLAN5.3GHz	-	-	-	-	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	0.02	2.270	1	3.179
2nd	WLAN5.3GHz	-	-	-	-	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+6	Power level 1	58	5290	19.06	20.50	1.395	99.63	1.004	-0.08	2.210	1.027	3.095
1st	WLAN5.5GHz	-	-	-	-	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	0.16	2.250	1	3.156
2nd	WLAN5.5GHz	-	-	-	-	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	142	5710	18.85	20.30	1.397	99.63	1.004	0.05	2.210	1.018	3.100
1st	WLAN5.5GHz	-	-	-	-	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	102	5510	18.77	20.30	1.424	99.63	1.004	0.09	2.170	1	3.102
2nd	WLAN5.5GHz	-	-	-	-	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+6	Power level 1	102	5510	18.77	20.30	1.424	99.63	1.004	0.06	2.120	1.024	3.030

General Note:

- Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required only when the measured SAR is $\geq 0.8\text{W/kg}$.
- Per KDB 865664 D01v01r04, if the ratio among the repeated measurement is ≤ 1.2 and the measured SAR $< 1.45\text{W/kg}$, only one repeated measurement is required.
- Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
- The ratio is the difference in percentage between original and repeated *measured SAR*.
- All measurement SAR result is scaled-up to account for tune-up tolerance and is compliant.

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
2.	WWAN + 5GHz WLAN	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
5.	WWAN + 5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
6.	WWAN + 2.4GHz WLAN + NFC				Yes
7.	WWAN + 5GHz WLAN + NFC				Yes
8.	WWAN + Bluetooth + NFC				Yes
9.	5GHz WLAN + Bluetooth+ NFC				Yes
10.	WWAN +5GHz WLAN + Bluetooth + NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5G NR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- EUT will choose each GSM, WCDMA, LTE and 5G NR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- WWAN above includes 5G NR bands and EN-DC combination.
- For EN-DC mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. Smart Transmit algorithm controls the total RF exposure from both 4G and 5G NR to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only).
- WLAN2.4GHz/WLAN5GHz MIMO SAR can represent SISO SAR to do co-located SAR analysis.
- According to the EUT characteristic, WLAN 5GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz and WLAN 2.4GHz can't transmit simultaneously.
- According to the EUT characteristic, WLAN 2.4GHz and Bluetooth can't transmit simultaneously.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- The maximum SAR summation is calculated based on the same configuration and test position.
- All licensed modes share the same antenna part and cannot transmit simultaneously.
- For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each bands.
- Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.

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

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

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

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

$$x\% * A + (100-x)\% * B \leq 1.0,$$

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

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

$$x\% * A + (100-x)\% * B + C \leq 1.0 \quad (1)$$

$$x\% * A + (100-x)\% * B \leq x\% * \max(A, B) + (100-x)\% * \max(A, B) \leq \max(A, B)$$

$$x\% * A + (100-x)\% * B + C \leq \max(A, B) + C \leq 1.0 \quad (2)$$

If $A + C \leq 1.0$ and $B + C \leq 1.0$ can be proven, then " $x\% * A + (100-x)\% * B + C \leq 1.0$ ". Therefore simultaneous transmission analysis for 5G NR + LTE + WLAN + BT can be performed in two steps

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

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

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

i. A and C are decoupled based on the SPLSR criteria, and

ii. $(100-x)\% * B + C \leq 1.0$, and

iii. $x\% * A + (100-x)\% * B \leq 1.0$

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

16.2 Head Exposure Conditions

WWAN Band	Exposure Position	1	3	4	5	6	1+3	1+4	1+5	1+6	4+5	4+6
		WWAN	WLAN2.4GHz Ant 6+7	WLAN5GHz Ant 5+6	Bluetooth Ant 6	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Right Cheek	0.243	0.316	0.342	0.127	0.431	0.56	0.59	0.37	0.67	0.47	0.77
	Right Tilted	0.155	0.337	0.402	0.088	0.420	0.49	0.56	0.24	0.58	0.49	0.82
	Left Cheek	0.376	0.532	0.580	0.524	0.513	0.91	0.96	0.90	0.89	1.10	1.09
	Left Tilted	0.226	0.354	0.520	0.176	0.446	0.58	0.75	0.40	0.67	0.70	0.97
All Bands Ant 1	Right Cheek	0.701	0.316	0.342	0.127	0.431	1.02	1.04	0.83	1.13	0.47	0.77
	Right Tilted	0.147	0.337	0.402	0.088	0.420	0.48	0.55	0.24	0.57	0.49	0.82
	Left Cheek	0.967	0.532	0.580	0.524	0.513	1.50	1.55	1.49	1.48	1.10	1.09
	Left Tilted	0.180	0.354	0.520	0.176	0.446	0.53	0.70	0.36	0.63	0.70	0.97
All Bands Ant 2	Right Cheek	0.604	0.316	0.342	0.127	0.431	0.92	0.95	0.73	1.04	0.47	0.77
	Right Tilted	0.206	0.337	0.402	0.088	0.420	0.54	0.61	0.29	0.63	0.49	0.82
	Left Cheek	0.403	0.532	0.580	0.524	0.513	0.94	0.98	0.93	0.92	1.10	1.09
	Left Tilted	0.153	0.354	0.520	0.176	0.446	0.51	0.67	0.33	0.60	0.70	0.97
All Bands Ant 3	Right Cheek	0.950	0.316	0.342	0.127	0.431	1.27	1.29	1.08	1.38	0.47	0.77
	Right Tilted	0.554	0.337	0.402	0.088	0.420	0.89	0.96	0.64	0.97	0.49	0.82
	Left Cheek	0.371	0.532	0.580	0.524	0.513	0.90	0.95	0.90	0.88	1.10	1.09
	Left Tilted	0.228	0.354	0.520	0.176	0.446	0.58	0.75	0.40	0.67	0.70	0.97
All Bands Ant 4	Right Cheek	1.039	0.316	0.342	0.127	0.431	1.36	1.38	1.17	1.47	0.47	0.77
	Right Tilted	1.118	0.337	0.402	0.088	0.420	1.46	1.52	1.21	1.54	0.49	0.82
	Left Cheek	0.578	0.532	0.580	0.524	0.513	1.11	1.16	1.10	1.09	1.10	1.09
	Left Tilted	0.673	0.354	0.520	0.176	0.446	1.03	1.19	0.85	1.12	0.70	0.97
All Bands Ant 5	Right Cheek	0.517	0.316	0.342	0.127	0.431	0.83	0.86	0.64	0.95	0.47	0.77
	Right Tilted	0.540	0.337	0.402	0.088	0.420	0.88	0.94	0.63	0.96	0.49	0.82
	Left Cheek	0.916	0.532	0.580	0.524	0.513	1.45	1.50	1.44	1.43	1.10	1.09
	Left Tilted	1.015	0.354	0.520	0.176	0.446	1.37	1.54	1.19	1.46	0.70	0.97
All Bands Ant 6	Right Cheek	0.428	0.316	0.342	0.127	0.431	0.74	0.77	0.56	0.86	0.47	0.77
	Right Tilted	0.397	0.337	0.402	0.088	0.420	0.73	0.80	0.49	0.82	0.49	0.82
	Left Cheek	0.927	0.532	0.580	0.524	0.513	1.46	1.51	1.45	1.44	1.10	1.09
	Left Tilted	0.972	0.354	0.520	0.176	0.446	1.33	1.49	1.15	1.42	0.70	0.97

WWAN Band	Exposure Position	1	4	5	6	1+4+5	1+4+6
		WWAN	WLAN5GHz Ant 5+6	Bluetooth Ant 6	Bluetooth Ant 7	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Right Cheek	0.243	0.193	0.063	0.243	0.50	0.68
	Right Tilted	0.155	0.221	0.047	0.240	0.42	0.62
	Left Cheek	0.376	0.300	0.254	0.269	0.93	0.95
	Left Tilted	0.226	0.260	0.089	0.244	0.58	0.73
All Bands Ant 1	Right Cheek	0.701	0.193	0.063	0.243	0.96	1.14
	Right Tilted	0.147	0.221	0.047	0.240	0.42	0.61
	Left Cheek	0.967	0.300	0.254	0.269	1.52	1.54
	Left Tilted	0.180	0.260	0.089	0.244	0.53	0.68
All Bands Ant 2	Right Cheek	0.604	0.193	0.063	0.243	0.86	1.04
	Right Tilted	0.206	0.221	0.047	0.240	0.47	0.67
	Left Cheek	0.403	0.300	0.254	0.269	0.96	0.97
	Left Tilted	0.153	0.260	0.089	0.244	0.50	0.66
All Bands Ant 3	Right Cheek	0.950	0.193	0.063	0.243	1.21	1.39
	Right Tilted	0.554	0.221	0.047	0.240	0.82	1.02
	Left Cheek	0.371	0.300	0.254	0.269	0.93	0.94
	Left Tilted	0.228	0.260	0.089	0.244	0.58	0.73
All Bands Ant 4	Right Cheek	1.039	0.193	0.063	0.243	1.30	1.48
	Right Tilted	1.118	0.221	0.047	0.240	1.39	1.58
	Left Cheek	0.578	0.300	0.254	0.269	1.13	1.15
	Left Tilted	0.673	0.260	0.089	0.244	1.02	1.18
All Bands Ant 5	Right Cheek	0.517	0.193	0.063	0.243	0.77	0.95
	Right Tilted	0.540	0.221	0.047	0.240	0.81	1.00
	Left Cheek	0.916	0.300	0.254	0.269	1.47	1.49
	Left Tilted	1.015	0.260	0.089	0.244	1.36	1.52
All Bands Ant 6	Right Cheek	0.428	0.193	0.063	0.243	0.68	0.86
	Right Tilted	0.397	0.221	0.047	0.240	0.67	0.86
	Left Cheek	0.927	0.300	0.254	0.269	1.48	1.50
	Left Tilted	0.972	0.260	0.089	0.244	1.32	1.48

16.3 Hotspot Exposure Conditions

WWAN Band	Exposure Position	1	3	4	5	6	1+3	1+4	1+5	1+6	4+5	4+6
		WWAN	WLAN2.4GHz Ant 6+7	WLAN5GHz Ant 5+6	Bluetooth Ant 6	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Front	0.443	0.262	0.315	0.264	0.244	0.71	0.76	0.71	0.69	0.58	0.56
	Back	0.642	0.406	0.609	0.373	0.323	1.05	1.25	1.02	0.97	0.98	0.93
	Left side	0.551	0.043			0.029	0.59	0.55	0.55	0.58	0.00	0.03
	Right side		0.566	0.571	0.567	0.137	0.57	0.57	0.57	0.14	1.14	0.71
	Top side		0.255	0.479	0.021	0.315	0.26	0.48	0.02	0.32	0.50	0.79
	Bottom side	0.366					0.37	0.37	0.37	0.37	0.00	0.00
All Bands Ant 1	Front	0.700	0.262	0.315	0.264	0.244	0.96	1.02	0.96	0.94	0.58	0.56
	Back	0.838	0.406	0.609	0.373	0.323	1.24	1.45	1.21	1.16	0.98	0.93
	Left side	0.976	0.043			0.029	1.02	0.98	0.98	1.01	0.00	0.03
	Right side		0.566	0.571	0.567	0.137	0.57	0.57	0.57	0.14	1.14	0.71
	Top side		0.255	0.479	0.021	0.315	0.26	0.48	0.02	0.32	0.50	0.79
	Bottom side						0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 2	Front	0.514	0.262	0.315	0.264	0.244	0.78	0.83	0.78	0.76	0.58	0.56
	Back	0.903	0.406	0.609	0.373	0.323	1.31	1.51	1.28	1.23	0.98	0.93
	Left side	0.125	0.043			0.029	0.17	0.13	0.13	0.15	0.00	0.03
	Right side	0.315	0.566	0.571	0.567	0.137	0.88	0.89	0.88	0.45	1.14	0.71
	Top side		0.255	0.479	0.021	0.315	0.26	0.48	0.02	0.32	0.50	0.79
	Bottom side	0.985					0.99	0.99	0.99	0.99	0.00	0.00
All Bands Ant 3	Front	0.559	0.262	0.315	0.264	0.244	0.82	0.87	0.82	0.80	0.58	0.56
	Back	0.954	0.406	0.609	0.373	0.323	1.36	1.56	1.33	1.28	0.98	0.93
	Left side	0.985	0.043			0.029	1.03	0.99	0.99	1.01	0.00	0.03
	Right side		0.566	0.571	0.567	0.137	0.57	0.57	0.57	0.14	1.14	0.71
	Top side	0.720	0.255	0.479	0.021	0.315	0.98	1.20	0.74	1.04	0.50	0.79
	Bottom side						0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 4	Front	0.474	0.262	0.315	0.264	0.244	0.74	0.79	0.74	0.72	0.58	0.56
	Back	0.929	0.406	0.609	0.373	0.323	1.34	1.54	1.30	1.25	0.98	0.93
	Left side	0.417	0.043			0.029	0.46	0.42	0.42	0.45	0.00	0.03
	Right side		0.566	0.571	0.567	0.137	0.57	0.57	0.57	0.14	1.14	0.71
	Top side	0.940	0.255	0.479	0.021	0.315	1.20	1.42	0.96	1.26	0.50	0.79
	Bottom side						0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 5	Front	0.519	0.262	0.315	0.264	0.244	0.78	0.83	0.78	0.76	0.58	0.56
	Back	0.923	0.406	0.609	0.373	0.323	1.33	1.53	1.30	1.25	0.98	0.93
	Left side		0.043			0.029	0.04	0.00	0.00	0.03	0.00	0.03
	Right side	0.492	0.566	0.571	0.567	0.137	1.06	1.06	1.06	0.63	1.14	0.71
	Top side	0.832	0.255	0.479	0.021	0.315	1.09	1.31	0.85	1.15	0.50	0.79
	Bottom side						0.00	0.00	0.00	0.00	0.00	0.00
All Bands Ant 6	Front	0.439	0.262	0.315	0.264	0.244	0.70	0.75	0.70	0.68	0.58	0.56
	Back	0.751	0.406	0.609	0.373	0.323	1.16	1.36	1.12	1.07	0.98	0.93
	Left side		0.043			0.029	0.04	0.00	0.00	0.03	0.00	0.03
	Right side	0.984	0.566	0.571	0.567	0.137	1.55	1.56	1.55	1.12	1.14	0.71
	Top side	0.211	0.255	0.479	0.021	0.315	0.47	0.69	0.23	0.53	0.50	0.79
	Bottom side						0.00	0.00	0.00	0.00	0.00	0.00



WWAN Band	Exposure Position	1	4	5	6	1+4+5	1+4+6
		WWAN	WLAN5GHz Ant 5+6	Bluetooth Ant 6	Bluetooth Ant 7	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Front	0.443	0.144	0.142	0.201	0.73	0.79
	Back	0.642	0.310	0.220	0.260	1.17	1.21
	Left side	0.551			0.026	0.55	0.58
	Right side		0.282	0.308	0.111	0.59	0.39
	Top side		0.242	0.012	0.252	0.25	0.49
	Bottom side	0.366				0.37	0.37
All Bands Ant 1	Front	0.700	0.144	0.142	0.201	0.99	1.05
	Back	0.838	0.310	0.220	0.260	1.37	1.41
	Left side	0.976			0.026	0.98	1.00
	Right side		0.282	0.308	0.111	0.59	0.39
	Top side		0.242	0.012	0.252	0.25	0.49
	Bottom side					0.00	0.00
All Bands Ant 2	Front	0.514	0.144	0.142	0.201	0.80	0.86
	Back	0.903	0.310	0.220	0.260	1.43	1.47
	Left side	0.125			0.026	0.13	0.15
	Right side	0.315	0.282	0.308	0.111	0.91	0.71
	Top side		0.242	0.012	0.252	0.25	0.49
	Bottom side	0.985				0.99	0.99
All Bands Ant 3	Front	0.559	0.144	0.142	0.201	0.85	0.90
	Back	0.954	0.310	0.220	0.260	1.48	1.52
	Left side	0.985			0.026	0.99	1.01
	Right side		0.282	0.308	0.111	0.59	0.39
	Top side	0.720	0.242	0.012	0.252	0.97	1.21
	Bottom side					0.00	0.00
All Bands Ant 4	Front	0.474	0.144	0.142	0.201	0.76	0.82
	Back	0.929	0.310	0.220	0.260	1.46	1.50
	Left side	0.417			0.026	0.42	0.44
	Right side		0.282	0.308	0.111	0.59	0.39
	Top side	0.940	0.242	0.012	0.252	1.19	1.43
	Bottom side					0.00	0.00
All Bands Ant 5	Front	0.519	0.144	0.142	0.201	0.81	0.86
	Back	0.923	0.310	0.220	0.260	1.45	1.49
	Left side				0.026	0.00	0.03
	Right side	0.492	0.282	0.308	0.111	1.08	0.89
	Top side	0.832	0.242	0.012	0.252	1.09	1.33
	Bottom side					0.00	0.00
All Bands Ant 6	Front	0.439	0.144	0.142	0.201	0.73	0.78
	Back	0.751	0.310	0.220	0.260	1.28	1.32
	Left side				0.026	0.00	0.03
	Right side	0.984	0.282	0.308	0.111	1.57	1.38
	Top side	0.211	0.242	0.012	0.252	0.47	0.71
	Bottom side					0.00	0.00

**16.4 Body-Worn Accessory Exposure Conditions**

WWAN Band	Exposure Position	1	3	4	5	6	1+3	1+4	1+5	1+6	4+5	4+6
		WWAN	WLAN2.4GHz Ant 6+7	WLAN5GHz Ant 5+6	Bluetooth Ant 6	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Front	0.292	0.264	0.310	0.144	0.129	0.56	0.60	0.44	0.42	0.45	0.44
	Back	0.351	0.509	0.596	0.246	0.177	0.86	0.95	0.60	0.53	0.84	0.77
All Bands Ant 1	Front	0.582	0.264	0.310	0.144	0.129	0.85	0.89	0.73	0.71	0.45	0.44
	Back	0.813	0.509	0.596	0.246	0.177	1.32	1.41	1.06	0.99	0.84	0.77
All Bands Ant 2	Front	0.702	0.264	0.310	0.144	0.129	0.97	1.01	0.85	0.83	0.45	0.44
	Back	0.992	0.509	0.596	0.246	0.177	1.50	1.59	1.24	1.17	0.84	0.77
All Bands Ant 3	Front	0.427	0.264	0.310	0.144	0.129	0.69	0.74	0.57	0.56	0.45	0.44
	Back	0.711	0.509	0.596	0.246	0.177	1.22	1.31	0.96	0.89	0.84	0.77
All Bands Ant 4	Front	0.384	0.264	0.310	0.144	0.129	0.65	0.69	0.53	0.51	0.45	0.44
	Back	0.621	0.509	0.596	0.246	0.177	1.13	1.22	0.87	0.80	0.84	0.77
All Bands Ant 5	Front	0.263	0.264	0.310	0.144	0.129	0.53	0.57	0.41	0.39	0.45	0.44
	Back	0.489	0.509	0.596	0.246	0.177	1.00	1.09	0.74	0.67	0.84	0.77
All Bands Ant 6	Front	0.518	0.264	0.310	0.144	0.129	0.78	0.83	0.66	0.65	0.45	0.44
	Back	0.901	0.509	0.596	0.246	0.177	1.41	1.50	1.15	1.08	0.84	0.77

WWAN Band	Exposure Position	1	4	5	6	1+4+5	1+4+6
		WWAN	WLAN5GHz Ant 5+6	Bluetooth Ant 6	Bluetooth Ant 7	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands Ant 0	Front	0.292	0.183	0.144	0.129	0.62	0.60
	Back	0.351	0.292	0.246	0.177	0.89	0.82
All Bands Ant 1	Front	0.582	0.183	0.144	0.129	0.91	0.89
	Back	0.813	0.292	0.246	0.177	1.35	1.28
All Bands Ant 2	Front	0.702	0.183	0.144	0.129	1.03	1.01
	Back	0.992	0.292	0.246	0.177	1.53	1.46
All Bands Ant 3	Front	0.427	0.183	0.144	0.129	0.75	0.74
	Back	0.711	0.292	0.246	0.177	1.25	1.18
All Bands Ant 4	Front	0.384	0.183	0.144	0.129	0.71	0.70
	Back	0.621	0.292	0.246	0.177	1.16	1.09
All Bands Ant 5	Front	0.263	0.183	0.144	0.129	0.59	0.58
	Back	0.489	0.292	0.246	0.177	1.03	0.96
All Bands Ant 6	Front	0.518	0.183	0.144	0.129	0.85	0.83
	Back	0.901	0.292	0.246	0.177	1.44	1.37

16.5 Product specific 10g SAR Exposure Conditions

Remark:

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

WWAN Band	Exposure Position	1	4	7	1+4	1+7	4+7
		WWAN	WLAN5GHz Ant 5+6	NFC	Summed	Summed	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
All Bands Ant 0	Front		0.852		0.85	0.00	0.85
	Back		1.107	0.019	1.13	0.02	1.13
	Left side				0.00	0.00	0.00
	Right side		1.154		1.15	0.00	1.15
	Top side		1.460		1.46	0.00	1.46
	Bottom side				0.00	0.00	0.00
All Bands Ant 1	Front		0.852		0.85	0.00	0.85
	Back		1.107	0.019	1.13	0.02	1.13
	Left side	1.694			1.69	1.69	0.00
	Right side		1.154		1.15	0.00	1.15
	Top side		1.460		1.46	0.00	1.46
	Bottom side				0.00	0.00	0.00
All Bands Ant 2	Front	2.654	0.852		3.51	2.65	0.85
	Back	2.445	1.107	0.019	3.57	2.46	1.13
	Left side				0.00	0.00	0.00
	Right side		1.154		1.15	0.00	1.15
	Top side		1.460		1.46	0.00	1.46
	Bottom side	2.456			2.46	2.46	0.00
All Bands Ant 3	Front		0.852		0.85	0.00	0.85
	Back	2.704	1.107	0.019	3.83	2.72	1.13
	Left side	3.112			3.11	3.11	0.00
	Right side		1.154		1.15	0.00	1.15
	Top side		1.460		1.46	0.00	1.46
	Bottom side				0.00	0.00	0.00
All Bands Ant 4	Front		0.852		0.85	0.00	0.85
	Back	2.222	1.107	0.019	3.35	2.24	1.13
	Left side				0.00	0.00	0.00
	Right side		1.154		1.15	0.00	1.15
	Top side	2.382	1.460		3.84	2.38	1.46
	Bottom side				0.00	0.00	0.00
All Bands Ant 5	Front		0.852		0.85	0.00	0.85
	Back		1.107	0.019	1.13	0.02	1.13
	Left side				0.00	0.00	0.00
	Right side		1.154		1.15	0.00	1.15
	Top side		1.460		1.46	0.00	1.46
	Bottom side				0.00	0.00	0.00
All Bands Ant 6	Front		0.852		0.85	0.00	0.85
	Back	2.110	1.107	0.019	3.24	2.13	1.13
	Left side				0.00	0.00	0.00
	Right side	2.424	1.154		3.58	2.42	1.15
	Top side		1.460		1.46	0.00	1.46
	Bottom side				0.00	0.00	0.00

WWAN Band	Exposure Position	1	4	7	1+7	1+4+7
		WWAN	WLAN5GHz Ant 5+6	NFC	Summed	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
All Bands Ant 0	Front		0.852		0.00	0.85
	Back		1.107	0.019	0.02	1.13
	Left side				0.00	0.00
	Right side		1.154		0.00	1.15
	Top side		1.460		0.00	1.46
	Bottom side				0.00	0.00
All Bands Ant 1	Front		0.852		0.00	0.85
	Back		1.107	0.019	0.02	1.13
	Left side	1.694			1.69	1.69
	Right side		1.154		0.00	1.15
	Top side		1.460		0.00	1.46
	Bottom side				0.00	0.00
All Bands Ant 2	Front	2.654	0.852		2.65	3.51
	Back	2.445	1.107	0.019	2.46	3.57
	Left side				0.00	0.00
	Right side		1.154		0.00	1.15
	Top side		1.460		0.00	1.46
	Bottom side	2.456			2.46	2.46
All Bands Ant 3	Front		0.852		0.00	0.85
	Back	2.704	1.107	0.019	2.72	3.83
	Left side	3.112			3.11	3.11
	Right side		1.154		0.00	1.15
	Top side		1.460		0.00	1.46
	Bottom side				0.00	0.00
All Bands Ant 4	Front		0.852		0.00	0.85
	Back	2.222	1.107	0.019	2.24	3.35
	Left side				0.00	0.00
	Right side		1.154		0.00	1.15
	Top side	2.382	1.460		2.38	3.84
	Bottom side				0.00	0.00
All Bands Ant 5	Front		0.852		0.00	0.85
	Back		1.107	0.019	0.02	1.13
	Left side				0.00	0.00
	Right side		1.154		0.00	1.15
	Top side		1.460		0.00	1.46
	Bottom side				0.00	0.00
All Bands Ant 6	Front		0.852		0.00	0.85
	Back	2.110	1.107	0.019	2.13	3.24
	Left side				0.00	0.00
	Right side	2.424	1.154		2.42	3.58
	Top side		1.460		0.00	1.46
	Bottom side				0.00	0.00

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17. Uncertainty Assessment

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

18. References

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

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