FCC SAR Test Report

APPLICANT	: OnePlus Technology (Shenzhen) Co., Ltd.
EQUIPMENT	: Mobile Phone
BRAND NAME	: 1+,ONEPLUS
MODEL NAME	: CPH2583
FCC ID	: 2ABZ2-AA550
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.

Si Zhang

Approved by: Si Zhang

ACCREDITED Cert #5145.01

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

Table of Contents

Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA382311	Rev. 01	Initial issue of report.	Oct. 20, 2023

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **OnePlus Technology (Shenzhen) Co., Ltd., Mobile Phone, CPH2583,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.19	0.37	0.22	1.57
		GSM1900	0.08	0.62	0.22	
	WCDMA	WCDMA V	1.06	0.95	0.31	
		WCDMA IV	0.66	0.45	0.22	
		WCDMA II	0.50	0.54	0.19	
	LTE	LTE Band 71	0.92	0.64	0.19	
		LTE Band 12/17	0.53	0.57	0.20	
		LTE Band 13	0.86	0.61	0.22	
		LTE Band 26/5	0.91	0.82	0.33	
		LTE Band 66/4	1.04	0.58	0.24	
		LTE Band 25/2	0.99	0.87	0.31	
		LTE Band 30	0.91	0.69	0.34	
		LTE Band 7	1.12	0.90	0.29	
		LTE Band 41/38	1.09	0.90	0.26	
		LTE Band 48	0.86	0.35	0.49	
	5G NR	FR1 n71	0.79	0.95	0.31	
		FR1 n12	0.63	0.50	0.24	
		FR1 n5	0.61	0.65	0.29	
		FR1 n66	1.11	0.93	0.26	
		FR1 n25/n2	0.35	0.44	0.17	
		FR1 n30	0.55	0.28	0.06	
		FR1 n7	1.18	0.91	0.38	
		FR1 n41/n38	1.10	0.93	0.48	
		FR1 n77/n78	**1.19**	0.99	**0.93**	
DTS	WLAN	2.4GHz WLAN	0.80	1.02	0.36	1.56
NII		5GHz WLAN	**1.19**	**1.19**	0.86	1.57
DSS	Bluetooth	2.4GHz Bluetooth	1.02	0.87	0.17	1.56

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	LTE	LTE Band 25/2	1.64	2.76
		LTE Band 7	1.57	
	5G NR	FR1 n7	2.25	
		FR1 n38	**2.76**	
		FR1 n41	1.64	
		FR1 n77/n78	1.34	
NII	WLAN	5GHz WLAN	1.88	2.62
Date of Testing:			2023/9/7 ~ 2023/9/28	

Remark:
1. This device supports LTE B2 / B4 / B5 / B17/B38 and B25 / B66 / B26 / B12/B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 /B38falls completely within the supports frequency span for LTE B25 / B66 / B26 / B12/B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12/B41.
2. This device supports 5GNR n78/n2/n38 and n77/n25/n41. Since the supported frequency span for 5GNR n78 /n2/n38 falls completely within the supports frequency span for n77 /n25/n41, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n77 /n25/n41.

Declaration of Conformity:
The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.
Comments and Explanations:
The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

This device is in compliance with Specific Absorption Rate (SAR) for general population/uncontrolled exposure limits (1.6 W/kg for Partial-Body 1g SAR, 4.0 W/kg for Product Specific 10g SAR) specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	**Sporton Site No.**	**FCC Designation No.**	**FCC Test Firm Registration No.**
	SAR03-SZ SAR02-SZ SAR04-SZ	CN1256	421272

Applicant	
Company Name	OnePlus Technology (Shenzhen) Co., Ltd.
Address	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.

Manufacturer	
Company Name	OnePlus Technology (Shenzhen) Co., Ltd.
Address	18C02, 18C03, 18C04, and 18C05, Shum Yip Terra Building, Binhe Avenue North, Futian District, Shenzhen, Guangdong, P.R. China.

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	1+,ONEPLUS
Model Name	CPH2583
FCC ID	2ABZ2-AA550
IMEI Code	IMEI 1: 865154060025870 IMEI 2: 865154060025862
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1915 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 30: 2305 MHz ~ 2315 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 48: 3550 MHz ~ 3700 MHz LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n12: 699 MHz ~ 716 MHz 5G NR n25: 1850 MHz ~ 1915 MHz 5G NR n30: 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz WLAN 6GHz U-NII-5: 5925 MHz ~ 6425 MHz WLAN 6GHz U-NII-6: 6425 MHz ~ 6525 MHz WLAN 6GHz U-NII-7: 6525 MHz ~ 6875 MHz WLAN 6GHz U-NII-8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz WPT: 110.1 kHz ~ 148.5 kHz NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS/DTM RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+(16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR : CP-OFDM / DFT-s-OFDM, PI/2 BPSK, QPSK, 16QAM, 64QAM, 256QAM WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac VHT20/VHT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 2.4GHz 802.11be EHT20/EHT40 WLAN 5GHz 802.11a/n HT20/HT40

	WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 5GHz 802.11be EHT20/EHT40/EHT80/EHT160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11be EHT20/EHT40/EHT80/EHT160/EHT320 Bluetooth BR/EDR/LE WPT: ASK NFC: ASK
HW Version	11
SW Version	OxygenOS V14.0
GSM / (E)GPRS Dual Transfer mode	Class A – EUT can support Packet Switched and Circuit Switched Network simultaneously.
EUT Stage	Production Unit

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN6GHz has no hotspot function.
4. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO and MIMO antenna mode.
5. This device support DTM operation up to multi-slot class 11 and supports GPRS/EGPRS mode up to multi-slot class 33.
6. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
7. The device implements the power management and receiver detection 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. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi/BTantennas accordingly. Details about the power management decision is provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E and the detailed DSI descriptions of below table.

DSI	Trigger Conditions	Antenna No.	Exposure conditions	
DSI5	Receiver on	All Ant	Head Standalone	Head all Position
DSI10	Receiver on WWAN+ WLAN/BT Receiver on WWAN+WLAN 2.4G+BT Receiver on WWAN+WLAN 5G/6G+BT	All Ant	Head Simultaneous	Head all Position
DSI15	Receiver on WWAN + WLAN2.4G+WLAN 5GHz/6GHz Receiver on WWAN + WLAN2.4G+WLAN 5GHz/6GHz+BT	All Ant	Head Simultaneous	Head all Position
DSI4	Receiver off	All Ant	Body Worn/Extremity Standalone	Body Worn/Extremity all Position
DSI9	Receiver off WWAN+ WLAN/BT Receiver off WWAN+WLAN 2.4G+BT Receiver off WWAN+WLAN 5G/6G+BT	All Ant	Hotspot Body-worn / Extremity Simultaneous	Hotspot/ Body Worn/Extremity all Position
DSI14	Receiver off WWAN + WLAN2.4G+WLAN 5GHz/6GHz Receiver off WWAN + WLAN2.4G+WLAN 5GHz/6GHz+BT	All Ant	Hotspot Body-worn / Extremity Simultaneous	Hotspot /Body Worn/Extremity all Position

8. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneously together with WWAN, the device power will be reduced power at head, body-worn, hotspot and extremity conditions.

WLAN		
Head Power Level 1	Receive on	WLAN Only
Head Power Level 2		WLAN + Bluetooth
Head Power Level 3		WLAN 2.4G + WLAN 5G/ 6G
Head Power Level 4		WLAN 2.4G + WLAN 5G/ 6G + Bluetooth
Head Power Level 5		WLAN + WWAN
Head Power Level 6		WLAN + Bluetooth + WWAN
		WLAN 2.4G + WLAN 5G/ 6G + WWAN
Head Power Level 7		WLAN 2.4G + WLAN 5G/ 6G + Bluetooth + WWAN
Body Power Level 1	Receive off	WLAN Only
Body Power Level 2		WLAN + Bluetooth
Body Power Level 3		WLAN 2.4G + WLAN 5G/ 6G
Body Power Level 4		WLAN 2.4G + WLAN 5G/ 6G + Bluetooth
Body Power Level 5		WLAN + WWAN
Body Power Level 6		WLAN + Bluetooth + WWAN
		WLAN 2.4G + WLAN 5G/ 6G + WWAN
Body Power Level 7		WLAN 2.4G + WLAN 5G/ 6G + Bluetooth + WWAN

Bluetooth		
Power Level 11	Receive on Receive off	Bluetooth Only
Power Level 10		Bluetooth + WLAN
		Bluetooth + WWAN
		Bluetooth + WLAN 2.4G + WLAN 5G/ 6G
		Bluetooth + WLAN + WWAN
Power Level 9		Bluetooth + WLAN 2.4G + WLAN 5G + WWAN

9. This device supports HPUE for LTE Band 41 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
10. 5GNR n41/n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
11. 5GNR n41/n77/n78 HUPE with higher power, 5G NR n41/n77 HUPE SAR can represent power class 3 level SAR.
12. 5GNR n41/n77/n78 supports UL MIMO.
13. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
14. SAR and Power density test report for WLAN6GHz U-NII-5/6/7/8 will be separately submitted. About co-located SAR with WWAN/Bluetooth always chose higher SAR of WLAN5G U-NII-1/2A/2C/3 and WLAN6GHz U-NII-5/6/7/8.
15. RF exposure report for WPC (Wireless power charging) will be separately submitted.
16. This device has NFC function and the NFC SAR report will be separately submitted.
17. 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, 25, 30, 40
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
	n71	FDD	15	5, 10, 15, 20
	n41	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n12	FDD	15	5, 10, 15
	n25	FDD	15	5, 10, 15, 20, 25, 30, 40
	n30	FDD	15	5, 10
	n66	FDD	15	5, 10, 15, 20, 25, 30, 40
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 30, 40
	n41	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 20, 30, 40, 50, 60, 70, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

<table>
<tr><th colspan="2">Summarized necessary items addressed in KDB 941225 D05 v02r05</th></tr>
<tr><td>FCC ID</td><td>2ABZ2-AA550</td></tr>
<tr><td>Equipment Name</td><td>Mobile Phone</td></tr>
<tr><td>Operating Frequency Range of each LTE transmission band</td><td>LTE Band 2: 1850 MHz ~ 1910 MHz
LTE Band 4: 1710 MHz ~ 1755 MHz
LTE Band 5: 824 MHz ~ 849 MHz
LTE Band 7: 2500 MHz ~ 2570 MHz
LTE Band 12: 699 MHz ~ 716 MHz
LTE Band 13: 777 MHz ~ 787 MHz
LTE Band 17: 704 MHz ~ 716 MHz
LTE Band 25: 1850 MHz ~ 1915 MHz
LTE Band 26: 814 MHz ~ 849 MHz
LTE Band 30: 2305 MHz ~ 2315 MHz
LTE Band 38: 2570 MHz ~ 2620 MHz
LTE Band 41: 2496 MHz ~ 2690 MHz
LTE Band 48: 3550 MHz ~ 3700 MHz
LTE Band 66: 1710 MHz ~ 1780 MHz
LTE Band 71: 663 MHz ~ 698 MHz</td></tr>
<tr><td>Channel Bandwidth</td><td>LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz
LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz
LTE Band 13: 5MHz, 10MHz
LTE Band 17: 5MHz, 10MHz
LTE Band 25:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz
LTE Band 30: 5MHz, 10MHz
LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 48: 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz</td></tr>
<tr><td>uplink modulations used</td><td>QPSK / 16QAM / 64QAM / 256QAM</td></tr>
<tr><td>LTE Voice / Data requirements</td><td>Voice and Data</td></tr>
<tr><td>LTE Release Version</td><td>R15, Cat18</td></tr>
<tr><td>CA Support</td><td>Supported, Uplink and Downlink</td></tr>
<tr><td>LTE MPR permanently built-in by design</td><td>Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3
<table>
<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></td></tr>
<tr><td>LTE A-MPR</td><td>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)</td></tr>
<tr><td>Spectrum plots for RB configuration</td><td>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.</td></tr>
<tr><td>Power reduction applied to satisfy SAR compliance</td><td>Yes, when operating in receiver detect mechanism, head/ body-worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.</td></tr>
<tr><td>LTE Carrier Aggregation Combinations</td><td>Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.</td></tr>
<tr><td>LTE Carrier Aggregation Additional Information</td><td>1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance.
2. This device supports maximum of 6 carriers in the downlink and 2 carriers in the uplink.</td></tr>
</table>

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)
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
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)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510
M	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)
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
H	23173	715.3	23165	714.5	23155	713.5	23130	711

LTE Band 13

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	23205	779.5	23230	782
M	23230	782		
H	23255	784.5		

LTE Band 17

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq. (MHz)
L	23755	706.5	23780	709
M	23790	710	23790	710
H	23825	713.5	23800	711

LTE Band 25

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26683	1914.3	26675	1913.5	26665	1912.5	26640	1910	26615	1907.5	26590	1905

LTE Band 26

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	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 30

	Bandwidth 5 MHz		Bandwidth 10 MHz	
	Channel #	Freq.(MHz)	Channel #	Freq.(MHz)
L	27685	2307.5	27710	2310
M	27710	2310		
H	27735	2312.5		

LTE Band 38								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	37775	2572.5	37800	2575	37825	2577.5	37850	2580
M	38000	2595	38000	2595	38000	2595	38000	2595
H	38225	2617.5	38200	2615	38175	2612.5	38150	2610

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

LTE Band 66												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	131979	1710.7	131987	1711.5	131997	1712.5	132022	1715	132047	1717.5	132072	1720
M	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745	132322	1745
H	132665	1779.3	132657	1778.5	132647	1777.5	132622	1775	132597	1772.5	132572	1770

LTE Band 71								
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133147	665.5	133172	668	133197	670.5	133222	673
M	133247	675.5	133272	678	133297	680.5	133322	683
H	133447	695.5	133422	693	133397	690.5	133372	688

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)
L	55265	3552.5	55290	3555	55315	3557.5	55340	3560
LM	55810	3607	55815	3607.5	55820	3608	55830	3609
MH	56170	3643	56165	3642.5	56160	3642	56150	3641
H	56715	3697.5	56690	3695	56665	3692.5	56640	3690

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 2	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 25	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 17			Yes	Yes		
LTE Band 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	DSI 4	DSI 5	DSI 9/14	DSI 10/15	Default Tune-up Limit
LTE Band 2	0	21.9	20.4	20.4	20.4	24.4
LTE Band 25	0	21.9	20.4	20.4	20.4	24.4
LTE Band 4	0	19.9	19.9	18.9	18.9	24.4
LTE Band 66	0	19.9	19.9	18.9	18.9	24.4
LTE Band 5	0	24.0	22.0	23.0	21.5	24.0
LTE Band 26	0	24.0	22.5	23.5	21.5	24.0
LTE Band 12	0	23.0	21.5	22.5	21.0	24.0
LTE Band 17	0	23.0	21.5	22.5	21.0	24.0
LTE Band 38(PC3)	0	24.4	24.4	24.4	24.4	24.4
LTE Band 41(PC3)	0	23.8	23.8	23.8	23.3	23.8
LTE Band 5	1	24.8	24.8	23.8	23.8	24.8
LTE Band 26	1	24.8	24.8	23.8	23.8	24.8
LTE Band 12	1	24.3	24.3	22.8	22.8	24.8
LTE Band 17	1	24.3	24.3	22.8	22.8	24.8
LTE Band 2	5	19.3	19.3	18.3	18.3	24.8
LTE Band 25	5	19.3	19.3	18.3	18.3	24.8
LTE Band 4	5	20.3	20.3	18.8	18.8	24.8
LTE Band 66	5	20.3	20.3	18.8	18.8	24.8
LTE Band 38(PC3)	5	22.8	22.8	21.3	21.3	24.8
LTE Band 41(PC3)	5	21.8	21.8	20.3	20.3	24.3
LTE Band 4	6	19.3	18.8	18.3	18.3	24.3
LTE Band 66	6	19.3	18.8	18.3	18.3	24.3
LTE Band 4	7	21.6	20.6	20.1	19.6	24.1
LTE Band 66	7	21.6	20.6	20.1	19.6	24.1

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 n25: 1850 MHz ~ 1915 MHz 5G NR n30: 2305 MHz ~ 2315 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n77: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3980 MHz 5G NR n78: 3450 MHz ~ 3550 MHz, 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 4.1 5GNR FR1 bands table.
SCS	FDD: SCS15KHz, TDD: SCS30KHz
uplink modulations used	DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n2	LTE B5/7/12/13/66/71
LTE Anchor Bands for n5	LTE B2/7/30/48/66
LTE Anchor Bands for n7	LTE B2/5/66
LTE Anchor Bands for n25	LTE B12/26/66
LTE Anchor Bands for n30	LTE B5/12/66
LTE Anchor Bands for n41	LTE B2/4/12/25/26/66/71
LTE Anchor Bands for n66	LTE B2/5/7/12/13/30/48/71
LTE Anchor Bands for n71	LTE B2/7/66
LTE Anchor Bands for n77	LTE B2/5/7/12/13/25/30/66
LTE Anchor Bands for n78	LTE B2/5/7/12/25/38/41/66

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band

NR Band 2

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860
M	376000	1880	376000	1880	376000	1880	376000	1880
H	381500	1907.5	381000	1905	380500	1902.5	380000	1900

NR Band 5

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

NR Band 7

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

NR Band 12

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

NR Band 25

	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	374000	1870
M	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5	376500	1882.5
H	382500	1912.5	382000	1910	381500	1907.5	381000	1905	380500	1902.5	380000	1900	379000	1895

NR Band 30				
	Bandwidth 5MHz		Bandwidth 10MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	461500	2307.5	462000	2310
M	462000	2310		
H	462500	2312.5		

NR Band 66														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	346000	1730
M	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H	355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352000	1760

NR Band 71								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	133100	665.5	133600	668	134100	670.5	134600	673
M	136100	680.5	136100	680.5	136100	680.5	136100	680.5
H	139100	695.5	138600	693	138100	690.5	137600	688

NR Band 38										
	Bandwidth10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	515004	2575.02	515502	2577.51	516000	2580	517002	2585.01	518004	2590.02
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	522996	2614.98	522498	2612.49	522000	2610	520998	2604.99	519996	2599.98

NR Band 41																				
	Bandwidth 10MHz		Bandwidth 15MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500202	2501.01	500700	2503.5	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	500202	2501.01	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	518598	2592.99	518598	2592.99
H	537000	2685	536496	2682.48	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	537000	2685	529998	2649.99	528996	2644.98	528000	2640

NR Band 77 SCS30KHz																				
	Bandwidth 10MHz		Bandwidth 15MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664832	3972.48	664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78 SCS30KHz																				
	Bandwidth 10MHz		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)	Ch. #	Freq. (MHz)
L	647000	3705	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652666	3789.99	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98		

For <3450 MHz ~ 3550 MHz >

NR Band 77 SCS30KHz																				
	Bandwidth 10MHz		Bandwidth 15MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630334	3455.01	630550	3457.5	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636166	3542.49	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

NR Band 78 SCS30KHz																				
	Bandwidth 10MHz		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)	Ch. #	Freq. (MHz)
L	630334	3455.01	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636332	3544.98	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

<For NR Overlap Bands Description>

1) NR Bands BW

	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NR	n2	FDD	15	5 10 15 20
	n25	FDD	15	5 10 15 20 25 30 40
	n38	TDD	30	5 10 15 20 25 30 40
	n41	TDD	30	10 15 20 30 40 50 60 70 80 90 100
	n77	TDD	30	10 15 20 30 40 50 60 70 80 90 100
	n78	TDD	30	10 20 30 40 50 60 70 80 90 100

2) NR Bands Tune up:

Band	Antenna	DSI 4	DSI 5	DSI 9/14	DSI 10/15	Default Tune-up Limit
n2	0	20.8	19.8	19.3	19.3	24.8
n25	0	20.8	19.8	19.3	19.3	24.8
n38(PC3)	0	21.8	20.8	20.3	19.8	24.8
n41(PC3)	0	21.7	20.7	20.2	19.7	24.7
n41(PC2)	0	21.7	20.7	20.2	19.7	26.2
n2	5	19.7	19.7	18.2	18.2	25.2
n25	5	19.7	19.7	18.2	18.2	25.2
n38(PC3)	5	18.2	18.2	16.2	16.2	25.2
n41(PC3)	5	18.2	18.2	16.7	16.7	25.2
n41(PC2)	5	18.2	18.2	16.7	16.7	26.7
n77(PC3)	6	21.2	15.2	19.7	14.7	24.2
n77(PC2)	6	21.2	15.2	19.7	14.7	26.2
n78(PC3)	6	18.7	13.7	17.7	12.7	24.2
n78(PC2)	6	18.7	13.7	17.7	12.7	26.2
n77(PC3)	14	18.2	18.2	17.2	17.2	24.2
n77(PC2)	14	18.2	18.2	17.2	17.2	27.2
n78(PC3)	14	18.2	18.2	17.2	17.2	24.2
n78(PC2)	14	18.2	18.2	17.2	17.2	27.2
n77(PC3)	12	24.2	16.7	22.7	15.7	24.2
n77(PC2)	12	24.2	16.7	22.7	15.7	26.2
n78(PC3)	12	22.2	16.7	21.2	15.7	24.2
n78(PC2)	12	22.2	16.7	21.2	15.7	26.2
n77(PC3)	7	22.7	24.2	19.7	23.2	24.7
n77(PC2)	7	22.7	24.2	19.7	23.2	26.7
n78(PC3)	7	22.7	24.2	19.7	23.2	24.7
n78(PC2)	7	22.7	24.2	19.7	23.2	26.7

5. Smart Transmit feature for RF Exposure compliance

This Device is enabled with the Qualcomm® Smart Transmit Gen2 feature. The RF exposure limit is defined based on time-averaged RF exposure. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.

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

This report describes the procedures for the SAR char generation, and the parameters obtained from SAR characterization (referred to as SAR char, respectively) will be used as input for Smart Transmit. SAR char will be entered via the Embedded File System (EFS) to enable the Smart Transmit GEN2 Feature.

<Terminologies in this report>

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

<SAR Characterization>

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

<SAR design target and uncertainty>

Item	Uncertainty dB (k=2)
Total uncertainty	1.0

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 Plimit. Below table shows Plimit EFS settings and maximum tune up output power Pmax configured for this EUT for various transmit conditions (Device State Index DSI).

<P_{limit} for supported technologies and bands>

Band	Antenna	DSI 4	DSI 5	DSI 9/14	DSI 10/15	Pmax*
		Rec off Standalone	Rec on Standalone	Rec off Simultaneous	Rec on Simultaneous	
GSM850**	1	31.4	23.5	23.0	22.5	24.0
GSM1900**	5	28.3	32.7	20.0	20.0	21.0
WCDMA II	0	20.9	19.4	19.9	18.9	23.4
	5	18.8	18.8	17.3	17.3	23.8
WCDMA IV	0	19.9	19.9	18.4	18.4	23.4
	5	18.8	18.8	17.3	17.3	23.8
WCDMA V	1	29.8	30.8	27.6	30.0	23.8
	0	27.9	23.3	22.8	22.3	22.8
LTE B2	0	20.9	19.4	19.4	19.4	23.4
	5	18.3	18.3	17.3	17.3	23.8
LTE B4	0	18.9	18.9	17.9	17.9	23.4
	5	19.3	19.3	17.8	17.8	23.8
	6	18.3	17.8	17.3	17.3	23.3
	7	20.6	19.6	19.1	18.6	23.1
LTE B5	1	29.6	30.2	22.8	22.8	23.8
	0	27.7	21.0	22.0	20.5	23.0
LTE B7	0	21.9	21.9	20.9	20.9	23.4
	5	19.8	19.8	18.3	18.3	23.8
	6	20.8	17.3	17.8	16.3	22.8
	7	19.6	19.1	19.6	19.1	22.1
LTE B12	1	23.3	23.3	21.8	21.8	23.8
	0	22.0	20.5	21.5	20.0	23.0
LTE B13	1	30.3	32.7	22.6	22.6	23.6
	0	35.4	24.2	24.9	22.8	22.8
LTE B17	1	23.3	23.3	21.8	21.8	23.8
	0	22.0	20.5	21.5	20.0	23.0
LTE B25	0	20.9	19.4	19.4	19.4	23.4
	5	18.3	18.3	17.3	17.3	23.8
LTE B26	1	29.6	30.2	22.8	22.8	23.8
	0	27.7	21.5	22.5	20.5	23.0
LTE B30	0	20.9	20.9	19.9	19.9	23.4
	5	19.3	19.3	19.3	19.3	23.8
LTE B66	0	18.9	18.9	17.9	17.9	23.4
	5	19.3	19.3	17.8	17.8	23.8
	6	18.3	17.8	17.3	17.3	23.3
	7	20.6	19.6	19.1	18.6	23.1
LTE B71	1	31.3	33.7	23.1	23.1	23.6
	0	30.2	24.1	22.5	22.5	23.0
LTE B38	0	27.4	22.2	21.8	21.4	21.4
	5	19.8	19.8	18.3	18.3	21.8
LTE B41PC3)**	0	27.7	22.0	20.8	20.3	20.8
LTE B41 (PC2)**						21.2
LTE B41PC3)**	5	18.8	18.8	17.3	17.3	21.3
LTE B41 (PC2)**						21.7
LTE B41PC3)**	6	19.8	17.3	19.3	16.3	20.8
LTE B41 (PC2)**						21.2

LTE B41PC3)**	7	28.0	22.7	20.0	20.0	21.0
LTE B41 (PC2)**						20.0
LTE B48	6	16.3	11.3	15.3	10.3	21.8
	14	16.8	17.8	15.8	16.8	21.8
	12	18.8	13.8	17.8	13.3	20.8
	7	31.6	28.2	21.3	27.4	21.8
FR1 n2	0	19.8	18.8	18.3	18.3	23.8
	5	18.7	18.7	17.2	17.2	24.2
FR1 n5	1	23.7	23.7	22.7	22.7	24.2
	0	22.6	21.6	21.6	20.6	23.6
FR1 n7	0	21.3	21.3	20.3	20.3	23.8
	5	19.2	19.2	17.7	17.7	24.2
	6	22.2	18.2	17.2	17.7	23.2
	7	19.5	19.5	18.5	18.5	22.5
FR1 n12	1	23.2	23.2	22.2	22.2	24.2
	0	22.6	21.6	21.6	20.6	23.6
FR1 n25	0	19.8	18.8	18.3	18.3	23.8
	5	18.7	18.7	17.2	17.2	24.2
FR1 n30	0	18.8	18.8	17.3	17.3	23.8
	5	16.7	16.7	15.7	15.7	24.2
FR1 n66	0	19.3	19.3	17.8	17.8	23.8
	5	18.7	18.7	17.2	17.2	24.2
	6	18.7	18.2	17.7	17.2	23.7
	7	22.0	20.0	21.0	19.5	23.5
FR1 n71	1	31.2	33.9	23.0	23.0	24.0
	0	28.4	25.2	23.4	23.4	23.4
FR1 n38	0	20.8	19.8	19.3	18.8	23.8
	5	17.2	17.2	15.2	15.2	24.2
FR1 n41_PC3	0	20.7	19.7	19.2	18.7	23.7
FR1 n41_PC2						25.2
FR1 n41_PC3	5	17.2	17.2	15.7	15.7	24.2
FR1 n41_PC2						25.7
FR1 n41_PC3	6	21.2	17.2	19.2	16.7	23.7
FR1 n41_PC2						25.2
FR1 n41_PC3	7	20.6	20.6	19.6	19.6	23.3
FR1 n41_PC2						24.6
FR1 n77_PC3	6	20.2	14.2	18.7	13.7	23.2
FR1 n77_PC2						25.2
FR1 n77_PC3	14	17.2	17.2	16.2	16.2	23.2
FR1 n77_PC2						26.2
FR1 n77_PC3	12	23.2	15.7	21.7	14.7	23.2
FR1 n77_PC2						25.2
FR1 n77_PC3	7	21.7	23.2	18.7	22.2	23.7
FR1 n77_PC2						25.7
FR1 n78_PC3	6	17.7	12.7	16.7	11.7	23.2
FR1 n78_PC2						25.2
FR1 n78_PC3	14	17.2	17.2	16.2	16.2	23.2
FR1 n78_PC2						26.2
FR1 n78_PC3	12	21.2	15.7	20.2	14.7	23.2
FR1 n78_PC2						25.2
FR1 n78_PC3	7	21.7	23.2	18.7	22.2	23.7
FR1 n78_PC2						25.7

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1.0 dB device uncertainty.
2) **All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).

3) The max allowed output power is the Plimit + 1.0 dB device uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

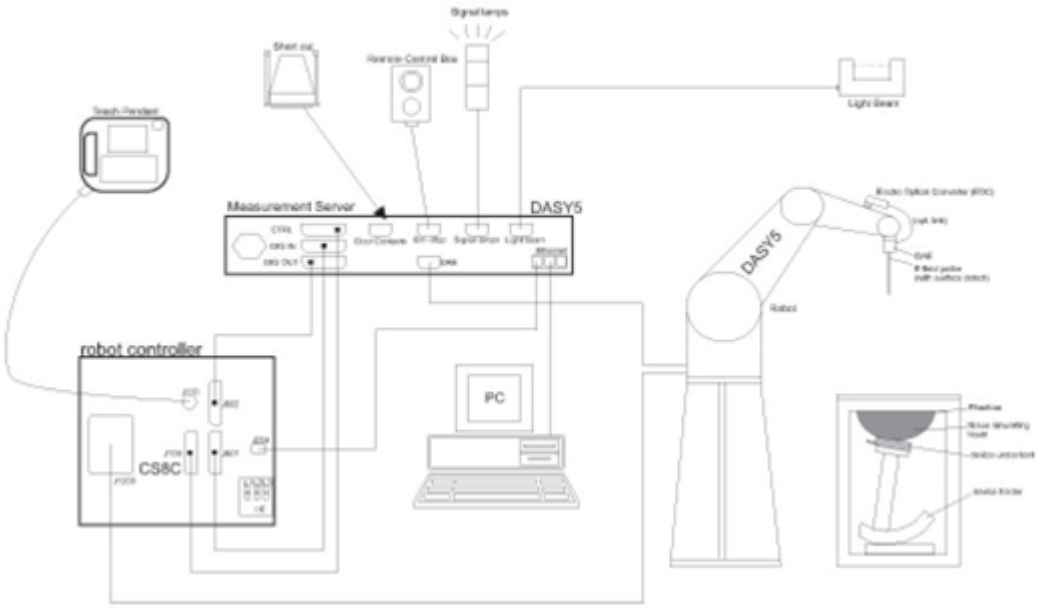
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

The DASY5 system used for performing compliance tests consists of the following items:



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

8.1 E-Field Probe

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

<EX3DV4 Probe>

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

8.2 Data Acquisition Electronics (DAE)

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

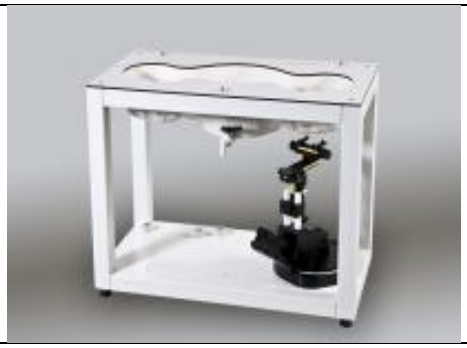
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

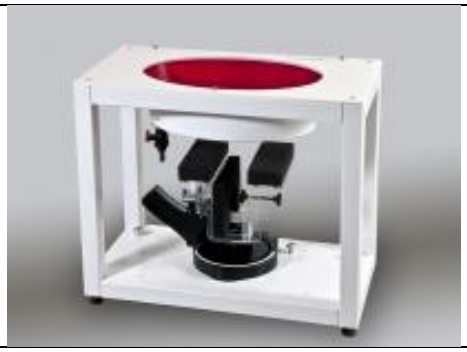
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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

<ELI Phantom>

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



The ELI phantom is intended for compliance testing of handheld and body-mounted wireless devices 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 form the measurement grid to the high-resolution grid
(e) Extrapolation of the entire 3-D field distribution to the phantom surface over the distance from sensor to surface
(f) Calculation of the averaged SAR within masses of 1g and 10g

9.2 Power Reference Measurement

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

9.3 Area Scan

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

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

	≤ 3 GHz	> 3 GHz
Maximum distance from closest measurement point (geometric center of probe sensors) to phantom surface	5 ± 1 mm	$\frac{1}{2}\cdot\delta\cdot\ln(2) \pm 0.5$ mm
Maximum probe angle from probe axis to phantom surface normal at the measurement location	30° ± 1°	20° ± 1°
Maximum area scan spatial resolution: Δx_{Area}, Δy_{Area}	≤ 2 GHz: ≤ 15 mm 2 – 3 GHz: ≤ 12 mm	3 – 4 GHz: ≤ 12 mm 4 – 6 GHz: ≤ 10 mm
	When the x or y dimension of the test device, in the measurement plane orientation, is smaller than the above, the measurement resolution must be ≤ 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 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 shoes base faces are centered on the maxima found in a preceding area scan job within the same procedure. When the measurement is done, the zoom scan evaluates the averaged SAR for 1 gram and 10 gram and displays these values next to the job's label.

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

			≤ 3 GHz	> 3 GHz
Maximum zoom scan spatial resolution: Δx_{Zoom}, Δy_{Zoom}			≤ 2 GHz: ≤ 8 mm 2 – 3 GHz: ≤ 5 mm*	3 – 4 GHz: ≤ 5 mm* 4 – 6 GHz: ≤ 4 mm*
Maximum zoom scan spatial resolution, normal to phantom surface	uniform grid: $\Delta z_{Zoom}(n)$		≤ 5 mm	3 – 4 GHz: ≤ 4 mm 4 – 5 GHz: ≤ 3 mm 5 – 6 GHz: ≤ 2 mm
	graded grid	$\Delta z_{Zoom}(1)$: between 1st two points closest to phantom surface	≤ 4 mm	3 – 4 GHz: ≤ 3 mm 4 – 5 GHz: ≤ 2.5 mm 5 – 6 GHz: ≤ 2 mm
		$\Delta z_{Zoom}(n>1)$: between subsequent points	≤ 1.5·$\Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

Note: δ is the penetration depth of a plane-wave at normal incidence to the tissue medium; see draft standard IEEE P1528-2011 for details.

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

9.6 Power Drift Monitoring

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

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 15, 2021	Dec. 14, 2024
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 16, 2024
SPEAG	1750MHz System Validation Kit	D1750V2	1137	Oct. 19, 2021	Oct. 18, 2024
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 19, 2024
SPEAG	2300MHz System Validation Kit	D2300V2	1056	Oct. 20, 2021	Oct. 19, 2024
SPEAG	2450MHz System Validation Kit	D2450V2	1040	Apr. 25, 2023	Apr. 24, 2024
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 19, 2024
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 25, 2020	Nov. 24, 2023
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 25, 2020	Nov. 24, 2023
SPEAG	3900MHz System Validation Kit	D3900V2	1048	Mar. 09, 2023	Mar. 08, 2024
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 12, 2024
SPEAG	Data Acquisition Electronics	DAE4	1437	Nov. 23, 2022	Nov. 22, 2023
SPEAG	Data Acquisition Electronics	DAE3	360	Dec. 28, 2022	Dec. 27, 2023
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	Jun. 06, 2023	Jun. 05, 2024
SPEAG	Dosimetric E-Field Probe	EX3DV4	7577	Nov. 23, 2022	Nov. 22, 2023
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1795	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P40 CB	TP-1500	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 27, 2022	Dec. 26, 2023
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 27, 2022	Dec. 26, 2023
Anritsu	Radio communication analyzer	MT8821C	6262314715	Jul. 05, 2023	Jul. 04, 2024
Anritsu	Radio communication analyzer	MT8821C	6272278319	Jul. 05, 2023	Jul. 04, 2024
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 05, 2023	Jul. 04, 2024
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 17, 2022	Oct. 16, 2023
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Feb. 20, 2023	Feb. 19, 2024
Agilent	Signal Generator	N5181A	MY50145381	Dec. 27, 2022	Dec. 26, 2023
Anritsu	Power Senor	MA2411B	1306099	Oct. 17, 2022	Oct. 16, 2023
Anritsu	Power Meter	ML2495A	1349001	Oct. 17, 2022	Oct. 16, 2023
Anritsu	Power Sensor	MA2411B	1542004	Dec. 27, 2022	Dec. 26, 2023
Anritsu	Power Meter	ML2495A	1339473	Dec. 27, 2022	Dec. 26, 2023
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 27, 2022	Dec. 26, 2023
R&S	Spectrum Analyzer	FSP7	100818	Jul. 05, 2023	Jul. 04, 2024
TES	Hygrometer	1310	200505600	Jul. 08, 2023	Jul. 07, 2024
Anymetre	Thermo-Hygrometer	JR593	2018100801	Apr. 08, 2023	Apr. 07, 2024
Anymetre	Thermo-Hygrometer	JR593	2018100802	Oct. 19, 2022	Oct. 18, 2023
Anymetre	Thermo-Hygrometer	JR593	2020062101	Jul. 08, 2023	Jul. 07, 2024
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
Mini-Circuits	Amplifier	ZVA-183W-S+	726202215	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Weinschel	Attenuator 1	3M-10	N/A	Note 1	
Weinschel	Attenuator 2	3M-20	N/A	Note 1	

Note:

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

11. System Verification

11.1 Tissue Simulating Liquids

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

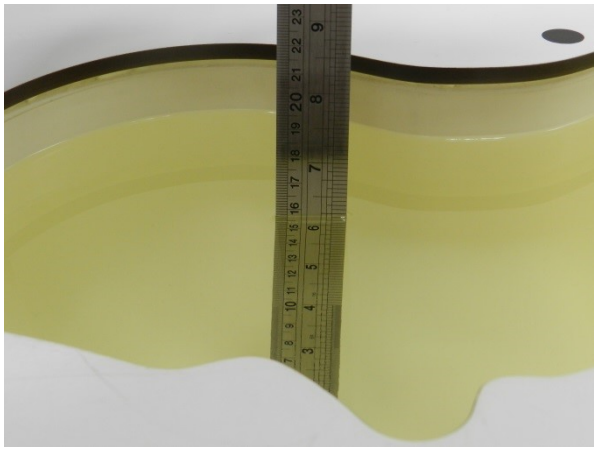


Fig 11.1 Photo of Liquid Height for Head SAR

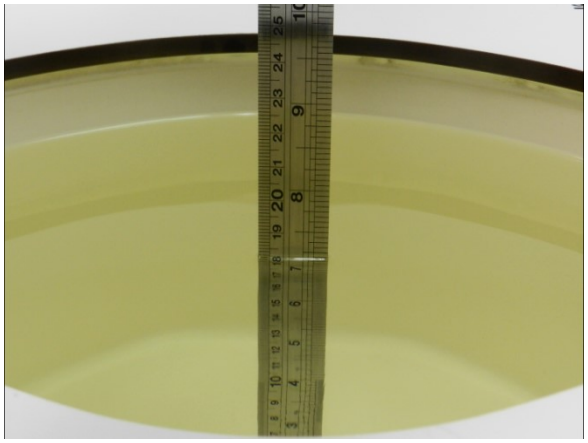


Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.4	0.920	43.600	0.89	41.90	3.37	4.06	±5	2023/9/7
750	Head	22.6	0.875	43.400	0.89	41.90	-1.69	3.58	±5	2023/9/13
835	Head	22.3	0.941	43.311	0.90	41.50	4.56	4.36	±5	2023/9/10
835	Head	22.3	0.936	42.656	0.90	41.50	4.00	2.79	±5	2023/9/14
1750	Head	22.4	1.350	39.254	1.37	40.10	-1.46	-2.11	±5	2023/9/12
1750	Head	22.5	1.354	40.980	1.37	40.10	-1.17	2.19	±5	2023/9/12
1750	Head	22.7	1.396	41.393	1.37	40.10	1.90	3.22	±5	2023/9/17
1900	Head	22.4	1.458	41.358	1.40	40.00	4.14	3.39	±5	2023/9/8
1900	Head	22.2	1.440	39.323	1.40	40.00	2.86	-1.69	±5	2023/9/14
1900	Head	22.5	1.451	40.249	1.40	40.00	3.64	0.62	±5	2023/9/22
2300	Head	22.6	1.734	40.606	1.67	39.50	3.83	2.80	±5	2023/9/9
2300	Head	22.4	1.680	39.209	1.67	39.50	0.60	-0.74	±5	2023/9/23
2450	Head	22.5	1.840	40.438	1.80	39.20	2.22	3.16	±5	2023/9/11
2450	Head	22.3	1.792	38.945	1.80	39.20	-0.44	-0.65	±5	2023/9/15
2450	Head	22.3	1.807	39.499	1.80	39.20	0.39	0.76	±5	2023/9/23
2600	Head	22.5	1.917	39.770	1.96	39.00	-2.19	1.97	±5	2023/9/15
2600	Head	22.2	1.905	38.643	1.96	39.00	-2.81	-0.92	±5	2023/9/17
2600	Head	22.4	1.908	38.327	1.96	39.00	-2.65	-1.73	±5	2023/9/24
3500	Head	22.6	2.849	38.344	2.91	37.90	-2.10	1.17	±5	2023/9/16
3500	Head	22.4	2.850	37.166	2.91	37.90	-2.06	-1.94	±5	2023/9/18
3500	Head	22.6	2.857	36.536	2.91	37.90	-1.82	-3.60	±5	2023/9/25
3700	Head	22.7	3.037	37.958	3.12	37.70	-2.66	0.68	±5	2023/9/17
3700	Head	22.5	3.005	36.916	3.12	37.70	-3.69	-2.08	±5	2023/9/20
3700	Head	22.5	3.010	36.238	3.12	37.70	-3.53	-3.88	±5	2023/9/25
3900	Head	22.5	3.236	37.604	3.33	37.51	-2.82	0.25	±5	2023/9/18
3900	Head	22.3	3.210	36.702	3.33	37.51	-3.60	-2.15	±5	2023/9/22
3900	Head	22.4	3.257	36.002	3.33	37.51	-2.19	-4.02	±5	2023/9/26
5250	Head	22.4	4.502	35.695	4.71	35.95	-4.42	-0.71	±5	2023/9/19
5250	Head	22.3	4.520	35.771	4.71	35.95	-4.03	-0.50	±5	2023/9/26
5600	Head	22.3	4.851	35.154	5.07	35.50	-4.32	-0.97	±5	2023/9/20
5600	Head	22.2	4.842	35.203	5.07	35.50	-4.50	-0.84	±5	2023/9/27
5750	Head	22.6	5.039	34.737	5.22	35.35	-3.47	-1.73	±5	2023/9/21
5750	Head	22.4	5.013	34.897	5.22	35.35	-3.97	-1.28	±5	2023/9/28

11.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2023/9/7	750	Head	250	1099	3819	1437	2.260	8.540	9.04	5.85
2023/9/13	750	Head	250	1099	3819	1437	2.300	8.540	9.2	7.73
2023/9/10	835	Head	250	4d162	3819	1437	2.500	9.640	10	3.73
2023/9/14	835	Head	250	4d162	3819	1437	2.570	9.640	10.28	6.64
2023/9/12	1750	Head	250	1137	7577	360	8.540	36.500	34.16	-6.41
2023/9/12	1750	Head	250	1137	3819	1437	8.880	36.500	35.52	-2.68
2023/9/17	1750	Head	250	1137	3819	1437	9.160	36.500	36.64	0.38
2023/9/8	1900	Head	250	5d182	3819	1437	10.100	39.600	40.4	2.02
2023/9/14	1900	Head	250	5d182	7577	360	10.200	39.600	40.8	3.03
2023/9/22	1900	Head	250	5d182	3819	1437	10.100	39.600	40.4	2.02
2023/9/9	2300	Head	250	1056	3819	1437	12.100	48.800	48.4	-0.82
2023/9/23	2300	Head	250	1056	3819	1437	12.500	48.800	50	2.46
2023/9/11	2450	Head	250	1040	3819	1437	12.600	52.700	50.4	-4.36
2023/9/15	2450	Head	250	1040	7577	360	12.300	52.700	49.2	-6.64
2023/9/23	2450	Head	250	1040	3819	1437	12.000	52.700	48	-8.92
2023/9/15	2600	Head	250	1070	3819	1437	13.400	56.200	53.6	-4.63
2023/9/17	2600	Head	250	1070	7577	360	13.000	56.200	52	-7.47
2023/9/24	2600	Head	250	1070	3819	1437	14.000	56.200	56	-0.36
2023/9/16	3500	Head	100	1037	3819	1437	6.410	68.000	64.1	-5.74
2023/9/18	3500	Head	100	1037	7577	360	6.830	68.000	68.3	0.44
2023/9/25	3500	Head	100	1037	3819	1437	6.420	68.000	64.2	-5.59
2023/9/17	3700	Head	100	1008	3819	1437	7.130	67.600	71.3	5.47
2023/9/20	3700	Head	100	1008	7577	360	6.950	67.600	69.5	2.81
2023/9/25	3700	Head	100	1008	3819	1437	6.990	67.600	69.9	3.40
2023/9/18	3900	Head	100	1048	3819	1437	6.980	69.100	69.8	1.01
2023/9/22	3900	Head	100	1048	7577	360	7.100	69.100	71	2.75
2023/9/26	3900	Head	100	1048	3819	1437	6.680	69.100	66.8	-3.33
2023/9/19	5250	Head	100	1341	3819	1437	7.520	80.700	75.2	-6.82
2023/9/26	5250	Head	100	1341	3819	1437	7.510	80.700	75.1	-6.94
2023/9/20	5600	Head	100	1341	3819	1437	8.090	84.500	80.9	-4.26
2023/9/27	5600	Head	100	1341	3819	1437	7.880	84.500	78.8	-6.75
2023/9/21	5750	Head	100	1341	3819	1437	8.090	80.600	80.9	0.37
2023/9/28	5750	Head	100	1341	3819	1437	7.560	80.600	75.6	-6.20

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2023/9/7	750	Head	250	1099	3819	1437	1.510	5.650	6.04	6.90
2023/9/13	750	Head	250	1099	3819	1437	1.500	5.650	6	6.19
2023/9/10	835	Head	250	4d162	3819	1437	1.680	6.260	6.72	7.35
2023/9/14	835	Head	250	4d162	3819	1437	1.650	6.260	6.6	5.43
2023/9/12	1750	Head	250	1137	7577	360	4.510	19.200	18.04	-6.04
2023/9/12	1750	Head	250	1137	3819	1437	4.740	19.200	18.96	-1.25
2023/9/17	1750	Head	250	1137	3819	1437	4.860	19.200	19.44	1.25
2023/9/8	1900	Head	250	5d182	3819	1437	5.200	20.200	20.8	2.97
2023/9/14	1900	Head	250	5d182	7577	360	5.320	20.200	21.28	5.35
2023/9/22	1900	Head	250	5d182	3819	1437	5.190	20.200	20.76	2.77
2023/9/9	2300	Head	250	1056	3819	1437	5.730	22.800	22.92	0.53
2023/9/23	2300	Head	250	1056	3819	1437	6.000	22.800	24	5.26
2023/9/11	2450	Head	250	1040	3819	1437	5.680	24.600	22.72	-7.64
2023/9/15	2450	Head	250	1040	7577	360	5.720	24.600	22.88	-6.99
2023/9/23	2450	Head	250	1040	3819	1437	5.690	24.600	22.76	-7.48
2023/9/15	2600	Head	250	1070	3819	1437	5.810	24.600	23.24	-5.53
2023/9/17	2600	Head	250	1070	7577	360	5.880	24.600	23.52	-4.39
2023/9/24	2600	Head	250	1070	3819	1437	6.120	24.600	24.48	-0.49
2023/9/16	3500	Head	100	1037	3819	1437	2.390	25.400	23.9	-5.91
2023/9/18	3500	Head	100	1037	7577	360	2.630	25.400	26.3	3.54
2023/9/25	3500	Head	100	1037	3819	1437	2.420	25.400	24.2	-4.72
2023/9/17	3700	Head	100	1008	3819	1437	2.590	24.400	25.9	6.15
2023/9/20	3700	Head	100	1008	7577	360	2.520	24.400	25.2	3.28
2023/9/25	3700	Head	100	1008	3819	1437	2.540	24.400	25.4	4.10
2023/9/18	3900	Head	100	1048	3819	1437	2.410	24.100	24.1	0.00
2023/9/22	3900	Head	100	1048	7577	360	2.500	24.100	25	3.73
2023/9/26	3900	Head	100	1048	3819	1437	2.300	24.100	23	-4.56
2023/9/19	5250	Head	100	1341	3819	1437	2.270	23.100	22.7	-1.73
2023/9/26	5250	Head	100	1341	3819	1437	2.240	23.100	22.4	-3.03
2023/9/20	5600	Head	100	1341	3819	1437	2.240	24.000	22.4	-6.67
2023/9/27	5600	Head	100	1341	3819	1437	2.270	24.000	22.7	-5.42
2023/9/21	5750	Head	100	1341	3819	1437	2.270	22.700	22.7	0.00
2023/9/28	5750	Head	100	1341	3819	1437	2.100	22.700	21	-7.49

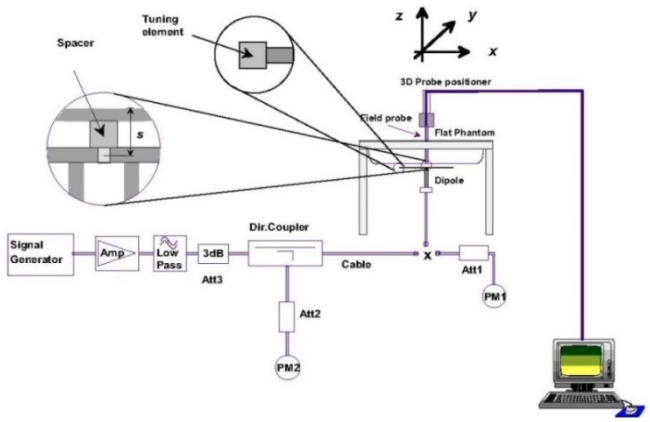


Fig 11.3.1 System Performance Check Setup

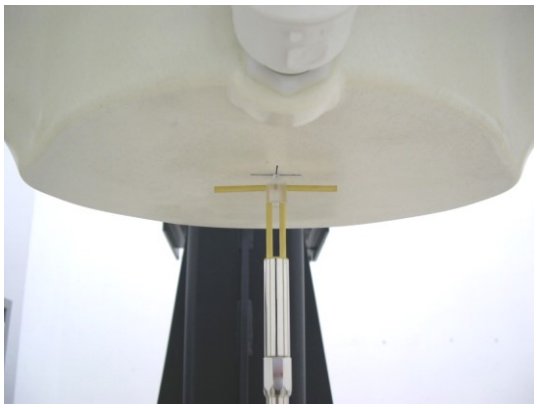


Fig 11.3.2 Setup Photo

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.

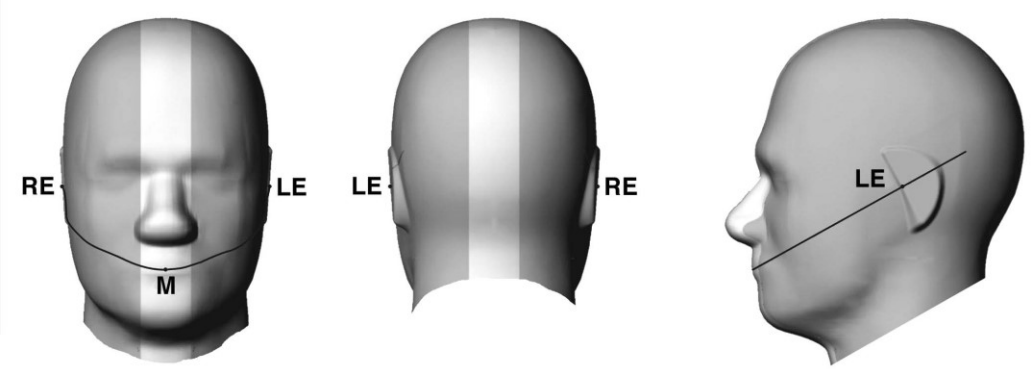


Fig 12.1.1 Front, back, and side views of SAM twin phantom

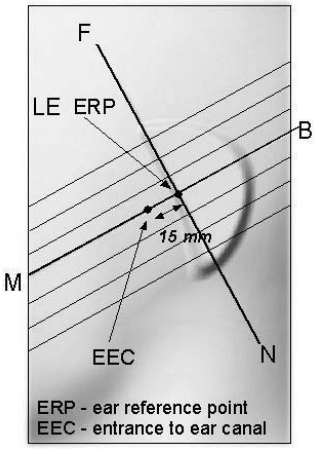


Fig 12.1.2 Close-up side view of phantom showing the ear region.

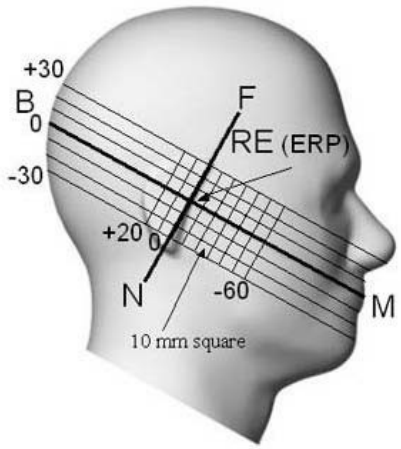


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

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 wt 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 wb of the bottom of the handset (point B). The horizontal line is perpendicular to the vertical centerline and passes through the center of the acoustic output (see Figure 12.2.1). The two lines intersect at point A. Note that for many handsets, point A coincides with the center of the acoustic output; however, the acoustic output may be located elsewhere on the horizontal line. Also note that the vertical centerline is not necessarily parallel to the front face of the handset (see Figure 12.2.2), especially for clamshell handsets, handsets with flip covers, and other irregularly-shaped handsets.
3. Position the handset close to the surface of the phantom such that point A is on the (virtual) extension of the line passing through points RE and LE on the phantom (see Figure 12.2.3), such that the plane defined by the vertical centerline and the horizontal line of the handset is approximately parallel to the sagittal plane of the phantom.
4. Translate the handset towards the phantom along the line passing through RE and LE until handset point A touches the pinna at the ERP.
5. While maintaining the handset in this plane, rotate it around the LE-RE line until the vertical centerline is in the plane normal to the plane containing B-M and N-F lines, i.e., the Reference Plane.
6. Rotate the handset around the vertical centerline until the handset (horizontal line) is parallel to the N-F line.
7. While maintaining the vertical centerline in the Reference Plane, keeping point A on the line passing through RE and LE, and maintaining the handset contact with the pinna, rotate the handset about the N-F line until any point on the handset is in contact with a phantom point below the pinna on the cheek. See Figure 12.2.3. The actual rotation angles should be documented in the test report.

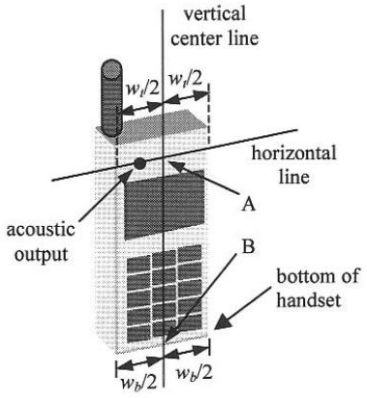


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

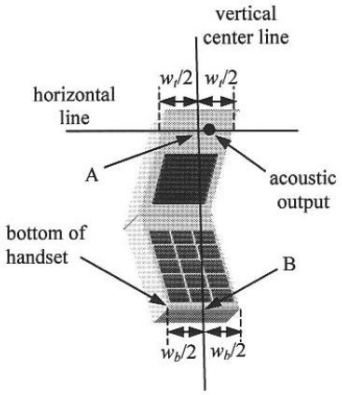


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

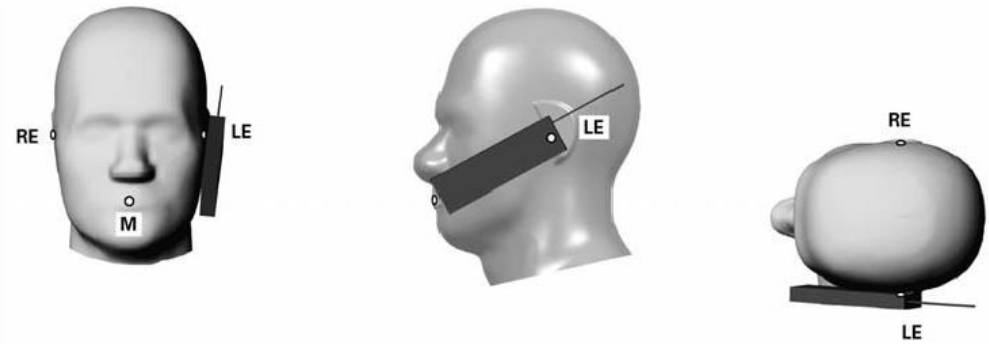


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

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

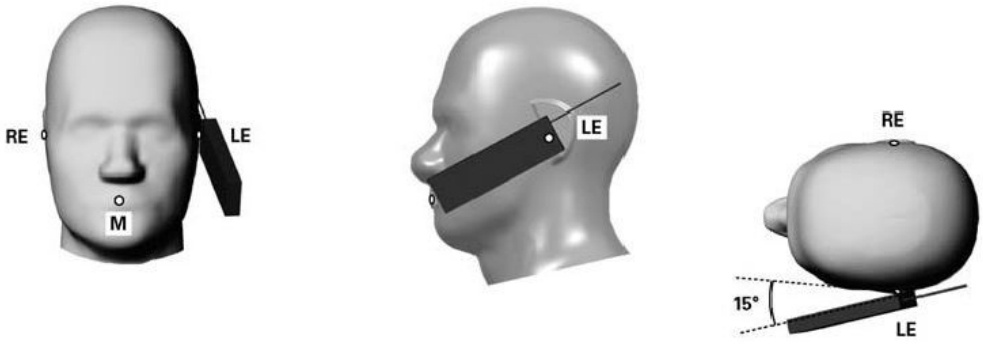


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

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

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

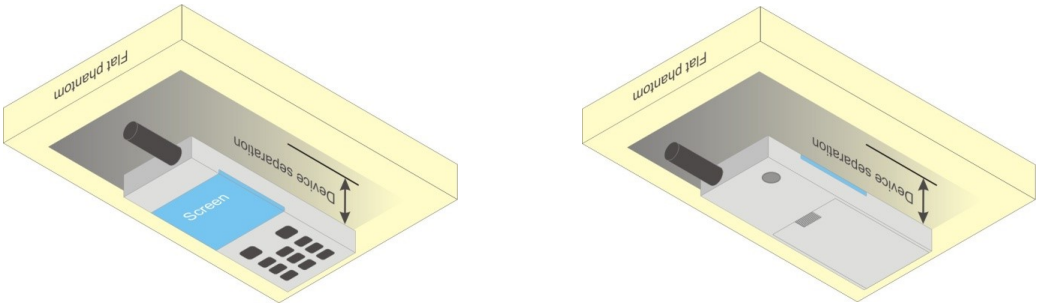


Fig 12.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

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

1. The normally required head and body-worn accessory SAR test procedures for handsets, including hotspot mode, must be applied.

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

12.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets (L x W ≥ 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 form 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. For DTM multi-slot class mode, the device was linked with base station simulator (Agilent E5515C) and transmit maximum power on maximum number of TX slots, i.e. one CS timeslot, and additional PS timeslots (1 for DTM class 5 and 9, 2 for DTM class 11) in one TDMA frame.
2. Agilent E5515C was used to setup the device operated under DTM mode for power measurement and SAR testing. For conducted power, the power of the burst for voice and the power of the bursts for data was reported separately in the table below, and the frame-average power is derived below to determine SAR testing.

   *DTM frame average power (dBm) = 10*log [∑(power of each slot, in mW)/8]*
3. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
4. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE / DTM 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.
5. Other configurations of GSM / GPRS / EDGE / DTM are considered as secondary modes. Both primary and secondary modes must be in the same frequency band. 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 ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, 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} (Note1, 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 Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_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 Δ_{NACK} = 30/15 with β_{hs} = 30/15 * β_c, and Δ_{CQI} = 24/15 with β_{hs} = 24/15 * β_c.

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

Note 1: For sub-test 1 to 4, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_c. For sub-test 5, Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 5/15 with β_{hs} = 5/15 * β_c.

Note 2: CM = 1 for β_c/β_d =12/15, β_{hs}/β_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 β_c = 10/15 and β_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: β_c/β_d=2/15
      b). Subtest 2: β_c/β_d=12/15
      c). Subtest 3: β_c/β_d=15/8
      d). Subtest 4: β_c/β_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	Proces ses	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.		

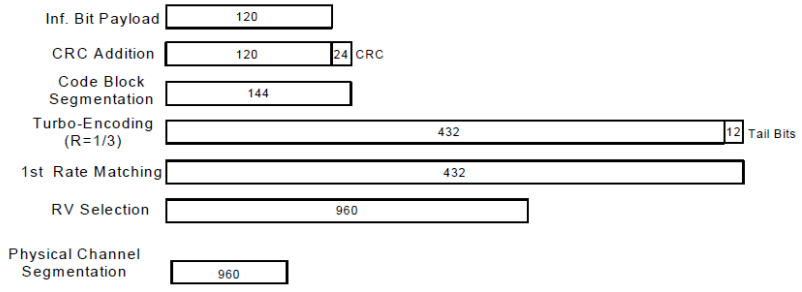


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

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 Parms
   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	$\beta_{ed}1$: 30/15 $\beta_{ed}2$: 30/15	$\beta_{ed}3$: 24/15 $\beta_{ed}4$: 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK}, Δ_{NACK} and Δ_{CQI} = 30/15 with β_{hs} = 30/15 * β_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 β_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:

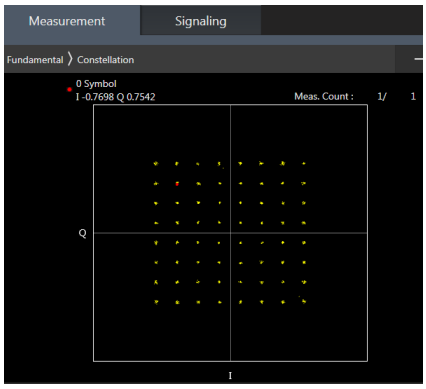
1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA /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

<LTE Conducted Power>

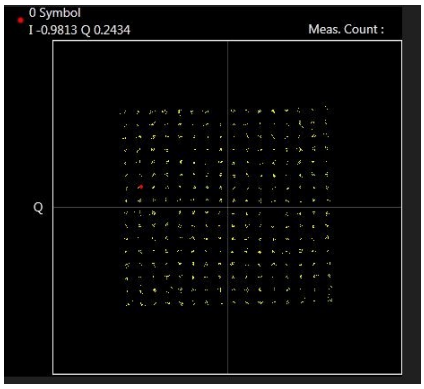
General Note:

1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested to be reported to FCC, for conducted power measurement and SAR testing.
2. Per KDB 941225 D05v02r05, when a properly configured base station simulator is used for the SAR and power measurements, spectrum plots for each RB allocation and offset configuration is not required.
3. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
4. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
5. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
6. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
7. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not 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; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
8. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B2 / B4 /B5 / B17 SAR test was covered by B25 / B66 / B26 / B12; 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 ≤ the larger band to qualify for the SAR test exclusion
   b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band
10. According to May 2017 TCB workshop, for 16QAM and 64QAM, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental Measurement >> Modulation Analysis >> constellation" mode of the device connect to the MT8821C base station, therefore, the device 256QAM, 64QAM and 16QAM signal modulation are correct.

16QAM



64QAM



256QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

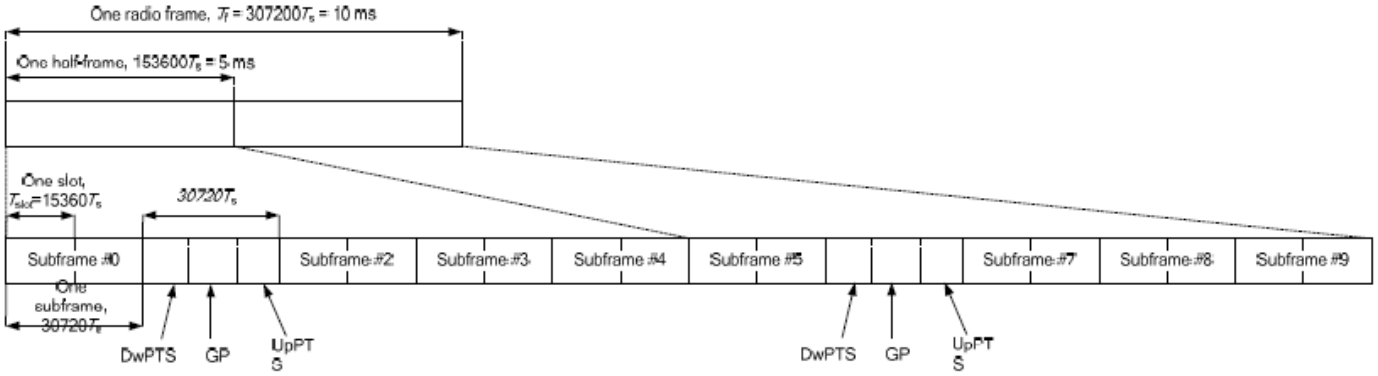


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

Uplink-downlink configuration	Downlink-to-Uplink Switch-point periodicity	Subframe number									
		0	1	2	3	4	5	6	7	8	9
0	5 ms	D	S	U	U	U	D	S	U	U	U
1	5 ms	D	S	U	U	D	D	S	U	U	D
2	5 ms	D	S	U	D	D	D	S	U	D	D
3	10 ms	D	S	U	U	U	D	D	D	D	D
4	10 ms	D	S	U	U	D	D	D	D	D	D
5	10 ms	D	S	U	D	D	D	D	D	D	D
6	5 ms	D	S	U	U	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	$26336 \cdot T_s$			$7680 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$
5	$6592 \cdot T_s$	$4384 \cdot T_s$	$5120 \cdot T_s$	$20480 \cdot T_s$		
6	$19760 \cdot T_s$			$23040 \cdot T_s$		
7	$21952 \cdot T_s$			$12800 \cdot T_s$		
8	$24144 \cdot T_s$			-	-	-
9	$13168 \cdot T_s$			-	-	-

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 2

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

For LTE TDD Power class 3

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

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

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

<LTE Carrier Aggregation>

General Note:

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

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation				4CC Downlink Carrier Aggregation				5CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	2A-2A	2A-2A	3CC-1	1	2A-2A-4A	2A-2A-4A	4CC-1	1	2A-2A-4A-4A	2A-2A-4A-4A		1	2A-2A-5A-66A-66A	2A-2A-66A-66A	
2	2A-4A	4A,2A,2A-4A	3CC-1	2	2A-2A-5A	2A-2A	4CC-5	2	2A-2A-4A-5A	2A-2A-4A		2	2A-2A-5A-66B	2A-2A-66B	
3	2A-5A	2A	3CC-2	3	2A_2A-7A	2A-2A-7A	4CC-8	3	2A-2A-4A-12A	2A-2A-4A		3	2A-2A-5A-66C	2A-2A-66C	
4	2A-7A	2A-7A,7A	3CC-3	4	2A-2A-12A	2A-2A	4CC-10	4	2A-2A-4A-71A	2A-2A-4A		4	2A-2A-12A-66A-66A	2A-2A-66A-66A	
5	2A-12A	2A	3CC-4	5	2A-2A-13A	2A-2A	4CC-12	5	2A-2A-5A-7A	2A-2A-7A		5	2A-2A-13A-66A-66A	2A-2A-66A-66A	
6	2A-13A	2A	3CC-5	6	2A-2A-30A	2A-2A-30A	4CC-13	6	2A-2A-5A-30A	2A-2A-30A		6	2A-2A-13A-66B	2A-2A-66B	
7	2A-17A	.		7	2A-2A-66A	2A-2A-66A	4CC-14	7	2A-2A-5A-66A	2A-2A-66A	5CC-1	7	2A-5A-5A-66A-66A	2A-66A-66A	
8	2A-26A	.		8	2A-2A-71A	2A-2A	4CC-15	8	2A-2A-7A-12A	2A-2A-7A		8	2A-7A-7A-66A-66A	2A-7A-7A-66A-66A	
9	2A-30A	2A-30A	3CC-6	9	2A-4A-4A	2A-4A-4A	4CC-18	9	2A-2A-7A-66A	2A-2A-7A-66A		9	2A-13A-66A-66B	2A-66A-66B	
10	2A-48A	2A-48A	3CC-29	10	2A-4A-5A	2A-4A	4CC-2	10	2A-2A-12A-30A	2A-2A-30A		10	2A-13A-48D	2A-48D	
11	2A-66A	66A,2A,2A-66A	3CC-7	11	2A-4A-7A	2A-4A-7A	4CC-20	11	2A-2A-12A-66A	2A-2A-66A	5CC-4	11	2A-7C-66A-66A	2A-7C-66A-66A	
12	2A-71A	2A	3CC-8	12	2A-4A-12A	2A-4A	4CC-3	12	2A-2A-13A-66A	2A-2A-66A	5CC-5	12	2A-48D-66A	2A-48D-66A	
13	4A-4A	4A-4A	3CC-9	13	2A-4A-13A	2A-4A		13	2A-2A-30A-66A	2A-2A-30A-66A		13	2A-48E	2A-48E	6CC-1
14	4A-5A	4A	3CC-10	14	2A-4A-71A	2A-4A	4CC-4	14	2A-2A-66A-66A	2A-2A-66A-66A		14	4A-48E	4A-48E	
15	4A-7A	7A,4A,4A-7A	3CC-11	15	2A-5A-5A	2A	4CC-22	15	2A-2A-66A-71A	2A-2A-66A		15	7A-7A-25A-25A-66A	7A-7A-25A-25A-66A	
16	4A-12A	4A	3CC-12	16	2A_5A-7A	2A-7A		16	2A-2A-66B	2A-2A-66B		16	13A-48D-66A	48D-66A	
17	4A-13A	4A	3CC-13	17	2A-5A-30A	2A-30A	4CC-6	17	2A-2A-66C	2A-2A-66C		17	13A-48E	48E	
18	4A-17A	.		18	2A-5A-48A	2A-48A		18	2A-4A-4A-5A	2A-4A-4A		18	48E-66A	48E-66A	6CC-1
19	4A-48A	4A-48A		19	2A-5A-66A	2A-66A	4CC-7	19	2A-4A-4A-12A	2A-4A-4A					
20	4A-71A	4A	3CC-14	20	2A-7A-7A	2A-7A-7A	4CC-28	20	2A-4A-7A-7A	2A-4A-7A-7A					
21	5A-5A	.	3CC-15	21	2A-7A-12A	2A-7A	4CC-8	21	2A-4A-5B	2A-4A					
22	5A-7A	7A	3CC-16	22	2A-7A-13A	2A-7A		22	2A-5A-5A-66A	2A-66A	5CC-7				
23	5A-30A	30A	3CC-17	23	2A-7A-66A	2A-7A-66A	4CC-9	23	2A-5A-7A-7A	2A-7A-7A					
24	5A-38A	38A		24	2A-12A-30A	2A-30A	4CC-10	24	2A-5A-66A-66A	2A-66A-66A	5CC-1				
25	5A-41A	41A		25	2A-12A-66A	2A-66A	4CC-11	25	2A-5A-66B	2A-66B	5CC-2				
26	5A-48A	48A	3CC-18	26	2A-13A-48A	2A-48A		26	2A-5A-48C	2A-48C					
27	5A-66A	66A	3CC-19	27	2A-13A-66A	2A-66A	4CC-12	27	2A-5A-66C	2A-66C	5CC-3				
28	7A-7A	7A7,A-7A	3CC-20	28	2A-30A-66A	2A-30A-66A	4CC-13	28	2A-7A-7A-13A	2A-7A-7A					
29	7A-12A	7A	3CC-21	29	2A-48A-48A	2A-48A-48A		29	2A-7A-7A-66A	2A-7A-7A-66A					
30	7A-13A	7A	3CC-22	30	2A-48A-66A	2A-48A-66A		30	2A-7A-66A-66A	2A-7A-66A-66A					
31	7A-25A	7A-25A	3CC-63	31	2A-66A-66A	2A-66A-66A	4CC-14	31	2A-12A-66A-66A	2A-66A-66A	5CC-4				
32	7A-26A	7A		32	2A-66A-71A	2A-66A	4CC-15	32	2A-12A-66C	2A-66C					
33	7A-66A	66A,7A,7A-66A	3CC-23	33	2A-5B	2A	4CC-40	33	2A-13A-66A-66A	2A-66A-66A	5CC-5				
34	7A-71A	7A		34	2A-66B	2A-66B	4CC-16	34	2A-13A-66B	2A-66B	5CC-6				
35	12A-25A	.		35	2A-7C	2A-7C	4CC-41	35	2A-13A-48C	2A-48C					
36	12A-30A	30A	3CC-46	36	2A-48C	2A-48C	4CC-43	36	2A-13A-66C	2A-66C					
37	12A-66A	66A	3CC-25	37	2A-66C	2A-66C	4CC-17	37	2A-30A-66A-66A	2A-30A-66A-66A					
38	13A-48A	48A	3CC-26	38	4A-4A-5A	4A-4A	4CC-18	38	2A-66A-66A-66A	2A-66A-66A-66A					
39	13A-66A	66A	3CC-27	39	4A-4A-7A	4A-4A-7A		39	2A-66A-66A-71A	2A-66A-66A					
40	25A-25A	25A-25A	3CC-76	40	4A-4A-12A	4A-4A	4CC-19	40	2A-5B-66A	2A-66A					
41	25A-26A	25A		41	4A-4A-13A	4A-4A		41	2A-7C-13A	2A-7C					
42	25A-41A	25A-41A		42	4A-4A-71A	4A-4A		42	2A-7C-66A	2A-7C-66A	5CC-11				
43	25A-66A	25A-66A	3CC-76	43	4A-5A-30A	4A-30A		43	2A-48C-66A	2A-48C-66A					
44	26A-41A	41A		44	4A-7A-7A	4A-7A-7A	4CC-20	44	2A-66C-71A	2A-66C					

45	30A-66A	30A-66A	3CC-28	45	4A-7A-12A	4A-7A		45	2A-48D	2A-48D	5CC-12				
46	38A-66A	66A,38A		46	4A-12A-30A	4A-30A		46	4A-4A_5B	4A-4A					
47	41A-41A	41A-41A	3CC-78	47	4A-5B	4A	4CC-21	47	4A-48D	4A-48D					
48	48A-48A	48A-48A	3CC-29	48	4A-7C	7C,4A,4A-7C		48	5A-5A-66A-66A	66A-66A	5CC-7				
49	48A-66A	48A-66A	3CC-30	49	4A-48C	4A-48C		49	5A-5A-66B	66B					
50	48A-71A	48A		50	5A-5A-66A	66A	4CC-22	50	5A-5A-66C	66C					
51	66A-66A	66A,66A-66A	3CC-31	51	5A-7A-7A	7A-7A	4CC-23	51	5A-7A-7A-66A	7A-7A-66A					
52	66A-71A	66A	3CC-32	52	5A-7A-66A	7A-66A	4CC-52	52	5A-7A-66A-66A	7A-66A-66A					
53	2C	2C	3CC-89	53	5A-30A-66A	30A-66A	4CC-53	53	5A-30A-66A466A	30A-66A-66A					
54	5B	.	3CC-88	54	5A-48A-66A	48A-66A		54	5A-7C-66A	7C-66A					
55	7B	.		55	5A-66A-66A	66A,66A-66A	4CC-24	55	5A-48C-66A	48C-66A					
56	7C	7C	3CC-35	56	5A-66B	66B	4CC-25	56	5A-48D	48D					
57	66B	66B	3CC-58	57	5A-7C	7C	4CC-54	57	7A-7A-13A-66A	7A-7A-66A					
58	66C	66C	3CC-61	58	5A-48C	48C	4CC-55	58	7A-7A-25A-25A	7A-7A-25A-25A	5CC-15				
59	38C	38C		59	5A-66C	66C	4CC-27	59	7A-7A-25A-66A	7A-7A-25A-66A					
60	41C	41C	3CC-79	60	7A-7A-13A	7A-7A	4CC-28	60	7A-7A-66A-66A	7A-7A-66A-66A	5CC-8				
61	48B	48B		61	7A-7A-25A	7A-7A-25A	4CC-58	61	12A-30A-66A-66A	30A-66A-66A					
62	48C	48C	3CC-51	62	7A-7A-66A	7A-7A-66A	4CC-29	62	13A-48A-66B	48A-66B					
				63	7A-12A-66A	7A-66A		63	13A-48A-66C	48A-66C					
				64	7A-13A-66A	7A-66A	4CC-57	64	13A-48C-66A	48C-66A					
				65	7A-66A-66A	7A-66A-66A	4CC-30	65	13A-48D	48D	5CC-10				
				66	12A-30A-66A	30A-66A	4CC-61	66	25A-41D	41D					
				67	12A-66A-66A	66A-66A	4CC-31	67	5B-66A-66A	66A-66A					
				68	12A-66C	66C	4CC-32	68	5B-66B	66B					
				69	13A-48A-66A	48A-66A		69	5B-66C	66C					
				70	13A-66A-66A	66A-66A	4CC-33	70	2C-66A-66A	2C-66A-66A					
				71	13A-66B	66B	4CC-34	71	7C-13A-66A	7C-66A					
				72	13A-48C	48C	4CC-35	72	7C-66A-66A	7C-66A-66A	5CC-11				
				73	13A-66C	66C	4CC-36	73	48C-66A-66A	48C-66A-66A					
				74	25A-25A-66A	25A-25A-66A		74	48C-66B	48C-66B					
				75	30A-66A-66A	30A-66A-66A	4CC-37	75	48C-66C	48C-66C					
				76	41A-41A-41A	41A-41A-41A		76	48D-66A	48D-66A	5CC-12				
				77	41A-41C	41A-41C		77	41E	41E					
				78	48A-48A-66A	48A-48A-66A		78	48E	48E	5CC-13				
				79	48A-66A-66A	48A-66A-66A									
				80	48A-66B	48A-66B	4CC-62								
				81	48A-48C	48A-48C									
				82	48A-66C	48A-66C									
				83	66A-66A-66A	66A-66A-66A	4CC-38								
				84	66A-66A-71A	66A-66A	4CC-39								
				85	66A-66C	66A-66C									
				86	5B-66A	66A	4CC-40								
				87	2C-5A	2C									
				88	2C-12A	2C									
				89	2C-66A	2C-66A	4CC-70								
				90	7C-13A	7C	4CC-71								
				91	7C-66A	7C-66A	4CC-72								
				92	48C-66A	48C-66A	4CC-73								
				93	66C-71A	66C	4CC-44								
				94	41D	41D	4CC-66								
				95	48D	48D	4CC-76								

6CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	2A-48E-66A	48E,2A-66A	

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 six 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.

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Band 2/4/7/25/30/38/41/48/66 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

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

4X4 MIMO	Band
	LTE Band 2/4/7/25/30/38/41/48/66

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA	2CC Uplink Carrier Aggregation	
Intra-band	Antenna Tx	
CA_7C	Ant 0	Ant 5
CA_66C	Ant 0	Ant 5
CA_41C	Ant 0	Ant 5
CA_48C	Ant 6	Ant 14

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/66/41/48 with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.

ii. The device supports uplink carrier aggregation with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre the 3GPP requirement.

iii. According Nov. 2017 TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.

iv. Additional SAR measurement for LTE UL CA whit other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

<Inter-band uplink carrier aggregation consideration>

LTE Inter CA	2CC Uplink Carrier Aggregation			
Combination	PCC+SCC		PCC+SCC	
CA_2A-4A	Ant 0	Ant 6	Ant 5	Ant 7
CA_2A-5A	Ant 0	Ant 1	Ant 5	Ant 0
CA_2A-7A	Ant 0	Ant 6	Ant 5	Ant 7
CA_2A-12A	Ant 0	Ant 1	Ant 5	Ant 0
CA_2A-13A	Ant 0	Ant 1	Ant 5	Ant 0
CA_2A-66A	Ant 0	Ant 6	Ant 5	Ant 7
CA_2A-71A	Ant 0	Ant 1	Ant 5	Ant 0
CA_5A-7A	Ant 1	Ant 0	Ant 0	Ant 5
CA_5A-30A	Ant 1	Ant 0	Ant 0	Ant 5
CA_5A-66A	Ant 1	Ant 0	Ant 0	Ant 5
CA_7A-12A	Ant 0	Ant 1	Ant 5	Ant 0
CA_7A-66A	Ant 0	Ant 6	Ant 5	Ant 7
CA_12A-30A	Ant 1	Ant 0	Ant 0	Ant 5
CA_12A-66A	Ant 1	Ant 0	Ant 0	Ant 5
CA_13A-66A	Ant 1	Ant 0	Ant 0	Ant 5
CA_66A-71A	Ant 0	Ant 1	Ant 5	Ant 0

General Note:

1. The LTE inter band total power is the same as LTE standalone power.
2. The product implements Qualcomm Smart Transmit feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window, for SAR (transmit frequency ≤ 6GHz). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
3. For LTE inter-band CA mode, Qualcomm Smart Transmit algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. Smart Transmit algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit. Therefore, simultaneous transmission compliance for LTE CA inter band SAR operation is demonstrated in the Part 2 Report during algorithm validation. In Part 1 Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7 /n25 /n30/n66 /n71 /n41 /n77/n78 is NSA mode.
2. 5G NR n2/n5/n7/n12 /n25 /n30/n66 /n71/n38/n41 /n77/n78 is SA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-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. 5GNR n41/n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
6. 5GNR n41/n77/n78 HUPE with higher power, 5G NR n41/n77 HUPE SAR can represent power class 3 level SAR.
7. 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.
8. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
9. 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.
10. 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.
11. 5GNR n41/n77/n78 supports UL MIMO.

<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	≤ 3.5[1]	≤ 1.2[1]	≤ 0.2[1]
		≤ 0.5[2]	≤ 0.5[2]	0[2]
	QPSK	≤ 1		0
	16 QAM	≤ 2		≤ 1
	64 QAM	≤ 2.5		
	256 QAM	≤ 4.5		
CP-OFDM	QPSK	≤ 3		≤ 1.5
	16 QAM	≤ 3		≤ 2
	64 QAM	≤ 3.5		
	256 QAM	≤ 6.5		

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

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

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

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

<EN-DC combination>

ENDC	LTE + NR		LTE + NR	
DC_5A_n2A	Ant 1	Ant 0	Ant 0	Ant 5
DC_7A_n2A	Ant 6	Ant 0	Ant 7	Ant 5
DC_12A_n2A	Ant 1	Ant 0	Ant 0	Ant 5
DC_13A_n2A	Ant 1	Ant 0	Ant 0	Ant 5
DC_66A_n2A	Ant 6	Ant 0	Ant 7	Ant 5
DC_71A_n2A	Ant 1	Ant 0	Ant 0	Ant 5
DC_2A_n5A	Ant 0	Ant 1	Ant 5	Ant 0
DC_7A_n5A	Ant 0	Ant 1	Ant 5	Ant 0
DC_30A_n5A	Ant 0	Ant 1	Ant 5	Ant 0
DC_48A_n5A	Ant 12	Ant 1	Ant 7	Ant 0
DC_66A_n5A	Ant 0	Ant 1	Ant 5	Ant 0
DC_2A_n7A	Ant 0	Ant 6	Ant 5	Ant 7
DC_5A_n7A	Ant 1	Ant 0	Ant 0	Ant 5
DC_66A_n7A	Ant 6	Ant 0	Ant 7	Ant 5
DC_12A_n25A	Ant 1	Ant 0	Ant 0	Ant 5
DC_26A_n25A	Ant 1	Ant 0	Ant 0	Ant 5
DC_66A_n25A	Ant 6	Ant 0	Ant 7	Ant 5
DC_5A_n30A	Ant 1	Ant 0	Ant 0	Ant 5
DC_12A_n30A	Ant 1	Ant 0	Ant 0	Ant 5
DC_66A_n30A	Ant 6	Ant 0	Ant 7	Ant 5
DC_2A_n41A	Ant 0	Ant 6	Ant 5	Ant 7
DC_4A_n41A	Ant 6	Ant 0	Ant 7	Ant 5
DC_12A_n41A	Ant 1	Ant 0	Ant 0	Ant 5
DC_25A_n41A	Ant 0	Ant 6	Ant 5	Ant 7
DC_26A_n41A	Ant 1	Ant 0	Ant 0	Ant 5
DC_66A_n41A	Ant 0	Ant 6	Ant 5	Ant 7
DC_71A_n41A	Ant 1	Ant 0	Ant 0	Ant 5

DC_2A_n66A	Ant 0	Ant 6	Ant 5	Ant 7
DC_5A_n66A	Ant 1	Ant 0	Ant 0	Ant 5
DC_7A_n66A	Ant 6	Ant 0	Ant 7	Ant 5
DC_12A_n66A	Ant 1	Ant 0	Ant 0	Ant 5
DC_13A_n66A	Ant 1	Ant 0	Ant 0	Ant 5
DC_30A_n66A	Ant 0	Ant 6	Ant 5	Ant 7
DC_48A_n66A	Ant 6	Ant 0	Ant 14	Ant 5
DC_71A_n66A	Ant 1	Ant 0	Ant 0	Ant 5
DC_2A_n71A	Ant 0	Ant 1	Ant 5	Ant 0
DC_7A_n71A	Ant 0	Ant 1	Ant 5	Ant 0
DC_66A_n71A	Ant 0	Ant 1	Ant 5	Ant 0
DC_2A_n77A	Ant 0	Ant 6	Ant 5	Ant 14
DC_5A_n77A	Ant 1	Ant 12	Ant 0	Ant 7
DC_7A_n77A	Ant 0	Ant 6	Ant 5	Ant 14
DC_12A_n77A	Ant 1	Ant 12	Ant 0	Ant 7
DC_13A_n77A	Ant 1	Ant 12	Ant 0	Ant 7
DC_25A_n77A	Ant 0	Ant 6	Ant 5	Ant 14
DC_30A_n77A	Ant 0	Ant 6	Ant 5	Ant 14
DC_66A_n77A	Ant 0	Ant 6	Ant 5	Ant 14
DC_2A_n78A	Ant 0	Ant 6	Ant 5	Ant 14
DC_5A_n78A	Ant 1	Ant 12	Ant 0	Ant 7
DC_7A_n78A	Ant 0	Ant 6	Ant 5	Ant 14
DC_12A_n78A	Ant 1	Ant 12	Ant 0	Ant 7
DC_25A_n78A	Ant 0	Ant 6	Ant 5	Ant 14
DC_38A_n78A	Ant 0	Ant 6	Ant 5	Ant 14
DC_41A_n78A	Ant 0	Ant 6	Ant 5	Ant 14
DC_66A_n78A	Ant 0	Ant 6	Ant 5	Ant 14

<NR Inter-band consideration>

NR Inter CA	PCC+SCC		PCC+SCC	
CA_n2A-n5A	Ant 0	Ant 1	Ant 5	Ant 0
CA_n2A-n66A	Ant 0	Ant 6	Ant 5	Ant 7
CA_n2A-n77A	Ant 0	Ant 6	Ant 5	Ant 14
CA_n5A-n66A	Ant 1	Ant 0	Ant 0	Ant 5
CA_n5A-n77A	Ant 1	Ant 12	Ant 0	Ant 7
CA_n5A-n78A	Ant 1	Ant 12	Ant 0	Ant 7
CA_n7A-n77A	Ant 0	Ant 6	Ant 5	Ant 14
CA_n7A-n78A	Ant 0	Ant 6	Ant 5	Ant 14
CA_n25A-n41A	Ant 0	Ant 6	Ant 5	Ant 7
CA_n25A-n66A	Ant 0	Ant 6	Ant 5	Ant 7
CA_n25A-n71A	Ant 0	Ant 1	Ant 5	Ant 0
CA_n25A-n77A	Ant 0	Ant 6	Ant 5	Ant 14
CA_n41A-n66A	Ant 6	Ant 0	Ant 7	Ant 5
CA_n41A-n71A	Ant 0	Ant 1	Ant 5	Ant 0
CA_n66A-n71A	Ant 0	Ant 1	Ant 5	Ant 0
CA_n66A-n77A	Ant 0	Ant 6	Ant 5	Ant 14
CA_n71A-n77A	Ant 1	Ant 12	Ant 0	Ant 7

NR UL MIMO Bands Configuration:

ULCA	5G-NR UL		5G-NR UL	
	Band	ANT port	Band	ANT port
n41	N41	0	N41	5
	N41	6	N41	7
n77	N77	6	N77	14
	N77	12	N77	7
n78	N78	6	N78	14
	N78	12	N78	7

<WLAN Conducted Power>

General Note:

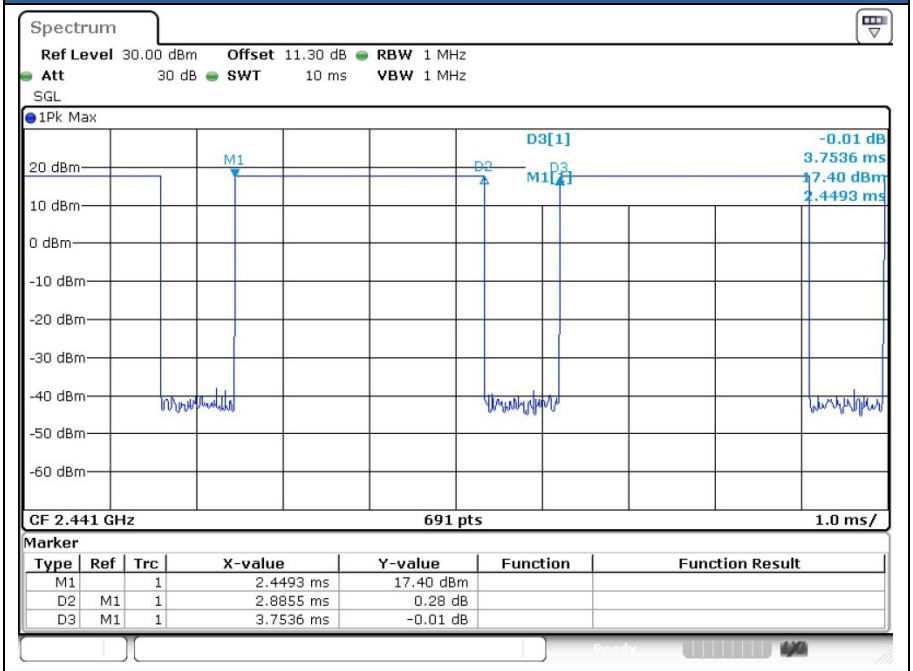
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For “Not required”, SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
3. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
4. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. For full RU and partial tone size output power measurement, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
7. When multiple transmission modes (802.11a/g/n/ac/ax/be) have the same specified maximum output power, largest channel bandwidth, lowest order modulation and lowest data rate, the lowest order 802.11 mode is selected; i.e., 802.11a is chosen over 802.11n then 802.11ac then 802.11ax then 802.11be or 802.11g is chosen over 802.11n.
8. The 2.4GHz/5GHz/6GHz/BT WLAN can transmit in SISO/MIMO antenna mode.
9. When the single antenna RF power in MIMO mode is less than the single antenna RF power in SISO mode, SAR testing was performed on SISO mode, for MIMO SAR based on standalone SAR to be summed together as MIMO SAR; when the single antenna RF power in MIMO mode is larger than the single antenna RF power in SISO mode, SAR testing was performed on dual antenna.
10. 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>

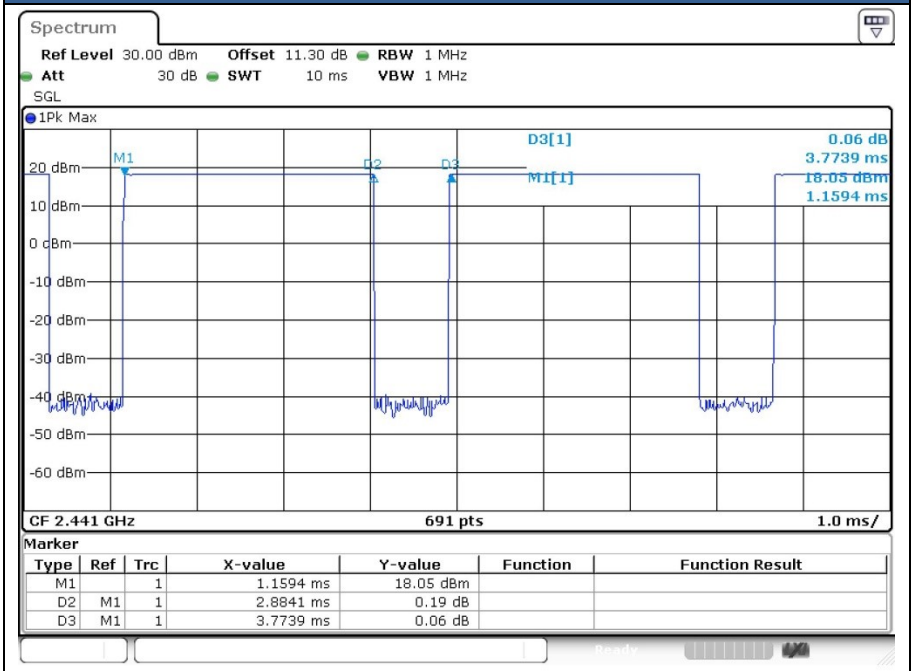
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.87% for ANT12 and 76.42% for ANT7 as following figure, Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation

Bluetooth time-domain plot for ANT12



Bluetooth time-domain plot for ANT7



14. Antenna Location

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

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
   f. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements the power management and receiver detection 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. It can determine proximity to head or body and set the relevant power level for 2G&3G&4G&5G and Wi-Fi antennas accordingly. Details about the power management decision is provided in the operational description. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneously together with WWAN, the device power will be reduced power at head, body-worn, hotspot and extremity conditions.
6. This device supports HPUE for LTE Band 41 with class 2 level, HPUE power has been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
7. 5GNR n41/n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
8. 5G NR n41/n77/n78 HUPE with higher power, 5G NR n41/n77 HUPE SAR can represent power class 3 level SAR.
9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
10. 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/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of LTE Band 2/7/25, 5GNR n7 /n38/n41 /n77/n78, WLAN5.2/5.8GHz, therefore product specific 10g SAR is necessary.
    b. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
    c. When 10-g product specific 10g SAR is considered, SAR thresholds is specified in the procedures for SAR test

reduction and exclusion should be multiplied by 2.5.

11. 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).
12. The following table "n/a" in the result means the SAR cube is too small to be detected.
13. Whether or not LTE Band 48C was forced to reduce power, all SAR tests are performed by using high power SAR to represent low power SAR conservatively.

GSM Note:

1. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE / DTM 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 / DTM are considered as secondary modes. Both primary and secondary modes must be in the same frequency band. 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 ≤ ¼ dB higher than the primary mode or when the highest reported SAR of the primary mode is scaled by the ratio of specified maximum output power and tune-up tolerance of secondary to primary mode and the adjusted SAR is ≤ 1.2 W/kg, 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 ≤ ¼ dB higher than RMC 12.2Kbps or when the highest reported SAR of the RMC12.2Kbps is scaled by the ratio of specified maximum output power and tune-up tolerance of HSDPA / HSUPA / DC-HSDPA / HSPA+ to RMC12.2Kbps and the adjusted SAR is ≤ 1.2 W/kg, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+ , and according to the following RF output power, the output power results of the secondary modes (HSDPA / HSUPA / DC-HSDPA / HSPA+) are less than ¼ dB higher than the primary modes; therefore, SAR measurement is not required for HSDPA / HSUPA / DC-HSDPA / HSPA+ .

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not 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; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B2 / B4 /B5 / B17 SAR test was covered by B25 / B66 / B26 / B12; 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 ≤ 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 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.
   e. 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
   f. For 5G FR1 n5/n7/n25/n38/n41/n66/n71/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
6. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO antenna mode.
7. When the single antenna RF power in MIMO mode is less than the single antenna RF power in SISO mode, SAR testing was performed on SISO mode, for MIMO SAR based on standalone SAR to be summed together as MIMO SAR; when the single antenna RF power in MIMO mode is larger than the single antenna RF power in SISO mode, SAR testing was performed on dual antenna.
8. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

15.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 71	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 1	DSI 5	133297	680.5	24.06	24.60	1.132	-	-	-0.17	0.083	0.094
	LTE Band 71	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 1	DSI 5	133297	680.5	24.06	24.60	1.132	-	-	-0.12	0.045	0.051
	LTE Band 71	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 1	DSI 5	133297	680.5	24.06	24.60	1.132	-	-	0.14	0.102	0.116
	LTE Band 71	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 1	DSI 5	133297	680.5	24.06	24.60	1.132	-	-	0.14	0.059	0.067
	LTE Band 71	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 1	DSI 5	133297	680.5	23.13	23.60	1.114	-	-	0.18	0.066	0.074
	LTE Band 71	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 1	DSI 5	133297	680.5	23.13	23.60	1.114	-	-	-0.14	0.036	0.040
	LTE Band 71	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 1	DSI 5	133297	680.5	23.13	23.60	1.114	-	-	0.02	0.083	0.092
	LTE Band 71	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 1	DSI 5	133297	680.5	23.13	23.60	1.114	-	-	-0.13	0.047	0.052
	LTE Band 71	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	133297	680.5	23.38	24.00	1.153	-	-	-0.06	0.496	0.572
	LTE Band 71	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 0	DSI 5	133297	680.5	23.38	24.00	1.153	-	-	0.01	0.106	0.122
01	LTE Band 71	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	133297	680.5	23.38	24.00	1.153	-	-	0.11	0.797	**0.919**
	LTE Band 71	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 0	DSI 5	133297	680.5	23.38	24.00	1.153	-	-	0.13	0.188	0.217
	LTE Band 71	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	133297	680.5	22.33	23.00	1.167	-	-	0.03	0.385	0.449
	LTE Band 71	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 0	DSI 5	133297	680.5	22.33	23.00	1.167	-	-	0.16	0.084	0.098
	LTE Band 71	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5	133297	680.5	22.33	23.00	1.167	-	-	0.07	0.629	0.734
	LTE Band 71	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 0	DSI 5	133297	680.5	22.33	23.00	1.167	-	-	-0.11	0.188	0.219
	LTE Band 71	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 0	DSI 5	133297	680.5	22.30	23.00	1.175	-	-	0.15	0.611	0.718
	LTE Band 12	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 1	DSI 5	23095	707.5	23.41	24.30	1.227	-	-	-0.01	0.079	0.097
	LTE Band 12	10M	QPSK	1	25	-	Right Tilted	0mm	Ant 1	DSI 5	23095	707.5	23.41	24.30	1.227	-	-	-0.09	0.049	0.060
	LTE Band 12	10M	QPSK	1	25	-	Left Cheek	0mm	Ant 1	DSI 5	23095	707.5	23.41	24.30	1.227	-	-	-0.14	0.112	0.137
	LTE Band 12	10M	QPSK	1	25	-	Left Tilted	0mm	Ant 1	DSI 5	23095	707.5	23.41	24.30	1.227	-	-	-0.11	0.061	0.075
	LTE Band 12	10M	QPSK	25	12	-	Right Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.82	23.80	1.253	-	-	0.16	0.071	0.089
	LTE Band 12	10M	QPSK	25	12	-	Right Tilted	0mm	Ant 1	DSI 5	23095	707.5	22.82	23.80	1.253	-	-	0.07	0.046	0.058
	LTE Band 12	10M	QPSK	25	12	-	Left Cheek	0mm	Ant 1	DSI 5	23095	707.5	22.82	23.80	1.253	-	-	0.08	0.103	0.129
	LTE Band 12	10M	QPSK	25	12	-	Left Tilted	0mm	Ant 1	DSI 5	23095	707.5	22.82	23.80	1.253	-	-	-0.06	0.057	0.071
	LTE Band 12	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 0	DSI 5	23095	707.5	21.20	21.50	1.072	-	-	0.04	0.296	0.317
	LTE Band 12	10M	QPSK	1	25	-	Right Tilted	0mm	Ant 0	DSI 5	23095	707.5	21.20	21.50	1.072	-	-	0.02	0.061	0.065
02	LTE Band 12	10M	QPSK	1	25	-	Left Cheek	0mm	Ant 0	DSI 5	23095	707.5	21.20	21.50	1.072	-	-	0.01	0.495	**0.530**
	LTE Band 12	10M	QPSK	1	25	-	Left Tilted	0mm	Ant 0	DSI 5	23095	707.5	21.20	21.50	1.072	-	-	0.01	0.093	0.100
	LTE Band 12	10M	QPSK	25	12	-	Right Cheek	0mm	Ant 0	DSI 5	23095	707.5	21.18	21.50	1.076	-	-	-0.04	0.290	0.312
	LTE Band 12	10M	QPSK	25	12	-	Right Tilted	0mm	Ant 0	DSI 5	23095	707.5	21.18	21.50	1.076	-	-	-0.11	0.058	0.062
	LTE Band 12	10M	QPSK	25	12	-	Left Cheek	0mm	Ant 0	DSI 5	23095	707.5	21.18	21.50	1.076	-	-	0	0.477	0.513
	LTE Band 12	10M	QPSK	25	12	-	Left Tilted	0mm	Ant 0	DSI 5	23095	707.5	21.18	21.50	1.076	-	-	-0.07	0.091	0.098
	LTE Band 13	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 1	DSI 5	23230	782	23.81	24.60	1.199	-	-	-0.04	0.098	0.118
	LTE Band 13	10M	QPSK	1	25	-	Right Tilted	0mm	Ant 1	DSI 5	23230	782	23.81	24.60	1.199	-	-	-0.01	0.061	0.073
	LTE Band 13	10M	QPSK	1	25	-	Left Cheek	0mm	Ant 1	DSI 5	23230	782	23.81	24.60	1.199	-	-	0.14	0.121	0.145
	LTE Band 13	10M	QPSK	1	25	-	Left Tilted	0mm	Ant 1	DSI 5	23230	782	23.81	24.60	1.199	-	-	-0.11	0.076	0.091
	LTE Band 13	10M	QPSK	25	12	-	Right Cheek	0mm	Ant 1	DSI 5	23230	782	22.79	23.60	1.205	-	-	-0.18	0.079	0.095
	LTE Band 13	10M	QPSK	25	12	-	Right Tilted	0mm	Ant 1	DSI 5	23230	782	22.79	23.60	1.205	-	-	0.04	0.048	0.058
	LTE Band 13	10M	QPSK	25	12	-	Left Cheek	0mm	Ant 1	DSI 5	23230	782	22.79	23.60	1.205	-	-	-0.03	0.099	0.119
	LTE Band 13	10M	QPSK	25	12	-	Left Tilted	0mm	Ant 1	DSI 5	23230	782	22.79	23.60	1.205	-	-	0.17	0.061	0.074
	LTE Band 13	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	23230	782	23.17	23.80	1.156	-	-	-0.06	0.469	0.542
	LTE Band 13	10M	QPSK	1	25	-	Right Tilted	0mm	Ant 0	DSI 5/10/15	23230	782	23.17	23.80	1.156	-	-	-0.04	0.078	0.090
03	LTE Band 13	10M	QPSK	1	25	-	Left Cheek	0mm	Ant 0	DSI 5/10/15	23230	782	23.17	23.80	1.156	-	-	0.03	0.744	**0.860**
	LTE Band 13	10M	QPSK	1	25	-	Left Tilted	0mm	Ant 0	DSI 5/10/15	23230	782	23.17	23.80	1.156	-	-	0.14	0.107	0.124
	LTE Band 13	10M	QPSK	25	12	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	23230	782	22.26	22.80	1.132	-	-	0.09	0.379	0.429
	LTE Band 13	10M	QPSK	25	12	-	Right Tilted	0mm	Ant 0	DSI 5/10/15	23230	782	22.26	22.80	1.132	-	-	-0.18	0.064	0.072
	LTE Band 13	10M	QPSK	25	12	-	Left Cheek	0mm	Ant 0	DSI 5/10/15	23230	782	22.26	22.80	1.132	-	-	-0.18	0.609	0.690
	LTE Band 13	10M	QPSK	25	12	-	Left Tilted	0mm	Ant 0	DSI 5/10/15	23230	782	22.26	22.80	1.132	-	-	0.04	0.087	0.099
	LTE Band 13	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	23230	782	22.23	22.80	1.140	-	-	0.08	0.591	0.674

	FR1 n71	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	136100	680.5	24.13	25.00	1.222	-	-	-0.15	0.080	0.098
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	136100	680.5	24.13	25.00	1.222	-	-	0.02	0.026	0.032
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	136100	680.5	24.13	25.00	1.222	-	-	0.07	0.100	0.122
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	136100	680.5	24.13	25.00	1.222	-	-	0.1	0.055	0.067
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	136100	680.5	24.02	25.00	1.253	-	-	0.05	0.077	0.096
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	136100	680.5	24.02	25.00	1.253	-	-	0.03	0.022	0.028
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	136100	680.5	24.02	25.00	1.253	-	-	-0.09	0.096	0.120
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	136100	680.5	24.02	25.00	1.253	-	-	-0.08	0.052	0.065
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.56	24.40	1.213	-	-	0.01	0.330	0.400
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.56	24.40	1.213	-	-	0.13	0.054	0.066
04	FR1 n71	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.56	24.40	1.213	-	-	-0.1	0.649	**0.787**
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.56	24.40	1.213	-	-	0	0.074	0.090
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.51	24.40	1.227	-	-	-0.07	0.320	0.393
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.51	24.40	1.227	-	-	-0.15	0.053	0.065
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.51	24.40	1.227	-	-	-0.14	0.621	0.762
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 5/10/15	136100	680.5	23.51	24.40	1.227	-	-	0.13	0.072	0.088
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	141500	707.5	23.48	24.20	1.180	-	-	-0.11	0.072	0.085
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	141500	707.5	23.48	24.20	1.180	-	-	-0.14	0.045	0.053
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	141500	707.5	23.48	24.20	1.180	-	-	0.03	0.104	0.123
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	141500	707.5	23.48	24.20	1.180	-	-	0.07	0.055	0.065
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	141500	707.5	23.42	24.20	1.197	-	-	-0.18	0.072	0.086
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	141500	707.5	23.42	24.20	1.197	-	-	0.06	0.045	0.054
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	141500	707.5	23.42	24.20	1.197	-	-	-0.11	0.102	0.122
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	141500	707.5	23.42	24.20	1.197	-	-	0.06	0.058	0.069
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	141500	707.5	21.75	22.60	1.216	-	-	0.16	0.280	0.341
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	141500	707.5	21.75	22.60	1.216	-	-	-0.11	0.043	0.052
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	141500	707.5	21.75	22.60	1.216	-	-	-0.08	0.470	0.572
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	141500	707.5	21.75	22.60	1.216	-	-	-0.04	0.056	0.068
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	141500	707.5	21.69	22.60	1.233	-	-	-0.12	0.298	0.367
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	141500	707.5	21.69	22.60	1.233	-	-	0.04	0.049	0.060
05	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	141500	707.5	21.69	22.60	1.233	-	-	0.11	0.514	**0.634**
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	141500	707.5	21.69	22.60	1.233	-	-	-0.07	0.065	0.080
835MHz																				
	GSM850	-	-	-	-	GPRS(1Tx slots)	Right Cheek	0mm	Ant 1	DSI 5	189	836.4	32.84	33.50	1.164	-	-	0.1	0.101	0.118
	GSM850	-	-	-	-	GPRS(1Tx slots)	Right Tilted	0mm	Ant 1	DSI 5	189	836.4	32.84	33.50	1.164	-	-	-0.01	0.052	0.061
	GSM850	-	-	-	-	GPRS(1Tx slots)	Left Cheek	0mm	Ant 1	DSI 5	189	836.4	32.84	33.50	1.164	-	-	0.02	0.150	0.175
	GSM850	-	-	-	-	GPRS(1Tx slots)	Left Tilted	0mm	Ant 1	DSI 5	189	836.4	32.84	33.50	1.164	-	-	-0.1	0.067	0.078
	GSM850	-	-	-	-	GPRS(1Tx slots)	Left Cheek	0mm	Ant 1	DSI 5	128	824.2	32.76	33.50	1.186	-	-	0.17	0.127	0.151
06	GSM850	-	-	-	-	GPRS(1Tx slots)	Left Cheek	0mm	Ant 1	DSI 5	251	848.8	32.77	33.50	1.183	-	-	0.13	0.158	**0.187**
	GSM850	-	-	-	-	DTM Multi-slot class 9	Left Cheek	0mm	Ant 1	DSI 5	251	848.8	23.70	24.48	1.197	-	-	0.06	0.143	0.171
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 5/10/15	4182	836.4	24.58	24.80	1.052	-	-	-0.05	0.157	0.165
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 5/10/15	4182	836.4	24.58	24.80	1.052	-	-	0.08	0.102	0.107
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 5/10/15	4182	836.4	24.58	24.80	1.052	-	-	-0.17	0.226	0.238
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 5/10/15	4182	836.4	24.58	24.80	1.052	-	-	0.08	0.121	0.127
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 5/10/15	4132	826.4	24.54	24.80	1.062	-	-	0.08	0.203	0.216
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 5/10/15	4233	846.6	24.45	24.80	1.084	-	-	0.07	0.214	0.232
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	4182	836.4	23.53	23.80	1.064	-	-	0.04	0.691	0.735
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 5	4182	836.4	23.53	23.80	1.064	-	-	-0.01	0.120	0.128
07	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 5	4182	836.4	23.53	23.80	1.064	-	-	-0.16	0.999	**1.063**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 5	4182	836.4	23.53	23.80	1.064	-	-	-0.1	0.147	0.156
	WCDMA V	-	-	-	-	RMC	Left Cheek	0mm	Ant 0	DSI 5	4132	826.4	23.44	23.80	1.086	-	-	-0.08	0.961	1.044

						12.2Kbps														
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 5	4233	846.6	23.41	23.80	1.094	-	-	-0.11	0.862	0.943
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 10/15	4182	836.4	23.08	23.30	1.052	-	-	0.02	0.880	0.926
	LTE Band 26	15M	QPSK	1	37	-	Right Cheek	0mm	Ant 1	DSI 5	26865	831.5	23.98	24.80	1.208	-	-	0.17	0.141	0.170
	LTE Band 26	15M	QPSK	1	37	-	Right Tilted	0mm	Ant 1	DSI 5	26865	831.5	23.98	24.80	1.208	-	-	-0.1	0.083	0.100
	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 1	DSI 5	26865	831.5	23.98	24.80	1.208	-	-	-0.04	0.205	0.248
	LTE Band 26	15M	QPSK	1	37	-	Left Tilted	0mm	Ant 1	DSI 5	26865	831.5	23.98	24.80	1.208	-	-	0.15	0.116	0.140
	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 1	DSI 5	26765	821.5	23.87	24.80	1.239	-	-	0.04	0.192	0.238
	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 1	DSI 5	26965	841.5	23.93	24.80	1.222	-	-	0.03	0.221	0.270
	LTE Band 26	15M	QPSK	36	20	-	Right Cheek	0mm	Ant 1	DSI 5	26865	831.5	22.93	23.80	1.222	-	-	-0.01	0.112	0.137
	LTE Band 26	15M	QPSK	36	20	-	Right Tilted	0mm	Ant 1	DSI 5	26865	831.5	22.93	23.80	1.222	-	-	0.17	0.067	0.082
	LTE Band 26	15M	QPSK	36	20	-	Left Cheek	0mm	Ant 1	DSI 5	26865	831.5	22.93	23.80	1.222	-	-	-0.1	0.163	0.199
	LTE Band 26	15M	QPSK	36	20	-	Left Tilted	0mm	Ant 1	DSI 5	26865	831.5	22.93	23.80	1.222	-	-	0.04	0.092	0.112
	LTE Band 26	15M	QPSK	1	37	-	Right Cheek	0mm	Ant 0	DSI 5	26865	831.5	21.93	22.50	1.140	-	-	0.02	0.503	0.574
	LTE Band 26	15M	QPSK	1	37	-	Right Tilted	0mm	Ant 0	DSI 5	26865	831.5	21.93	22.50	1.140	-	-	-0.08	0.087	0.099
08	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 0	DSI 5	26865	831.5	21.93	22.50	1.140	-	-	0.07	0.795	**0.906**
	LTE Band 26	15M	QPSK	1	37	-	Left Tilted	0mm	Ant 0	DSI 5	26865	831.5	21.93	22.50	1.140	-	-	-0.12	0.105	0.120
	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 0	DSI 5	26765	821.5	21.86	22.50	1.159	-	-	-0.12	0.712	0.825
	LTE Band 26	15M	QPSK	1	37	-	Left Cheek	0mm	Ant 0	DSI 5	26965	841.5	21.90	22.50	1.148	-	-	0.07	0.742	0.852
	LTE Band 26	15M	QPSK	36	20	-	Right Cheek	0mm	Ant 0	DSI 5	26865	831.5	21.84	22.50	1.164	-	-	-0.08	0.466	0.542
	LTE Band 26	15M	QPSK	36	20	-	Right Tilted	0mm	Ant 0	DSI 5	26865	831.5	21.84	22.50	1.164	-	-	-0.13	0.086	0.100
	LTE Band 26	15M	QPSK	36	20	-	Left Cheek	0mm	Ant 0	DSI 5	26865	831.5	21.84	22.50	1.164	-	-	0.12	0.771	0.898
	LTE Band 26	15M	QPSK	36	20	-	Left Tilted	0mm	Ant 0	DSI 5	26865	831.5	21.84	22.50	1.164	-	-	-0.17	0.096	0.112
	LTE Band 26	15M	QPSK	36	20	-	Left Cheek	0mm	Ant 0	DSI 5	26765	821.5	21.80	22.50	1.175	-	-	-0.14	0.693	0.814
	LTE Band 26	15M	QPSK	36	20	-	Left Cheek	0mm	Ant 0	DSI 5	26965	841.5	21.82	22.50	1.169	-	-	-0.08	0.707	0.827
	LTE Band 26	15M	QPSK	75	0	-	Left Cheek	0mm	Ant 0	DSI 5	26865	831.5	21.86	22.50	1.159	-	-	0.15	0.740	0.857
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	167300	836.5	24.24	24.70	1.112	-	-	0.13	0.138	0.153
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	167300	836.5	24.24	24.70	1.112	-	-	-0.03	0.086	0.096
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	167300	836.5	24.24	24.70	1.112	-	-	-0.18	0.210	0.233
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	167300	836.5	24.24	24.70	1.112	-	-	-0.1	0.107	0.119
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	DSI 5	167300	836.5	24.10	24.70	1.148	-	-	0.1	0.137	0.157
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	DSI 5	167300	836.5	24.10	24.70	1.148	-	-	0.17	0.087	0.100
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	DSI 5	167300	836.5	24.10	24.70	1.148	-	-	-0.01	0.211	0.242
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	DSI 5	167300	836.5	24.10	24.70	1.148	-	-	0.09	0.107	0.123
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	167300	836.5	21.83	22.60	1.194	-	-	0	0.309	0.369
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	167300	836.5	21.83	22.60	1.194	-	-	0.11	0.050	0.060
09	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	167300	836.5	21.83	22.60	1.194	-	-	0.14	0.512	**0.611**
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	167300	836.5	21.83	22.60	1.194	-	-	0.13	0.062	0.074
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	167300	836.5	21.75	22.60	1.216	-	-	-0.14	0.299	0.364
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	167300	836.5	21.75	22.60	1.216	-	-	-0.17	0.049	0.060
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	167300	836.5	21.75	22.60	1.216	-	-	0.05	0.498	0.606
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	167300	836.5	21.75	22.60	1.216	-	-	0.03	0.061	0.074
1750MHz																				
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	1413	1732.6	20.53	20.90	1.089	-	-	-0.01	0.469	0.511
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 5	1413	1732.6	20.53	20.90	1.089	-	-	0.12	0.071	0.077
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 5	1413	1732.6	20.53	20.90	1.089	-	-	0.1	0.395	0.430
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 5	1413	1732.6	20.53	20.90	1.089	-	-	-0.16	0.056	0.061
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	1312	1712.4	20.47	20.90	1.104	-	-	-0.07	0.369	0.407
10	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	1513	1752.6	20.48	20.90	1.102	-	-	-0.12	0.603	**0.664**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 5	1413	1732.6	19.31	19.80	1.119	-	-	-0.14	0.051	0.057
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	DSI 5	1413	1732.6	19.31	19.80	1.119	-	-	0.06	0.027	0.030
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	DSI 5	1413	1732.6	19.31	19.80	1.119	-	-	-0.15	0.041	0.046
	WCDMA IV	-	-	-	-	RMC	Left Tilted	0mm	Ant 5	DSI 5	1413	1732.6	19.31	19.80	1.119	-	-	0.16	0.026	0.029

						12.2Kbps														
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 5	1312	1712.4	19.20	19.80	1.148	-	-	0.02	0.042	0.048
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 5	1513	1752.6	19.29	19.80	1.125	-	-	0.03	0.048	0.054
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	132322	1745	19.50	19.90	1.096	-	-	0.18	0.418	0.458
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 0	DSI 5	132322	1745	19.50	19.90	1.096	-	-	-0.16	0.061	0.067
	LTE Band 66	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	132322	1745	19.50	19.90	1.096	-	-	-0.1	0.340	0.373
	LTE Band 66	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 0	DSI 5	132322	1745	19.50	19.90	1.096	-	-	-0.01	0.047	0.052
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	132072	1720	19.45	19.90	1.109	-	-	0.14	0.280	0.311
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	132572	1770	19.45	19.90	1.109	-	-	-0.14	0.537	0.596
	LTE Band 66C	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	132572+ 132374	1770+ 1750.2	19.32	19.90	1.143	-	-	0.02	0.318	0.363
	LTE Band 66	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	132322	1745	19.45	19.90	1.109	-	-	-0.09	0.409	0.454
	LTE Band 66	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 0	DSI 5	132322	1745	19.45	19.90	1.109	-	-	-0.05	0.063	0.070
	LTE Band 66	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5	132322	1745	19.45	19.90	1.109	-	-	0.18	0.347	0.385
	LTE Band 66	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 0	DSI 5	132322	1745	19.45	19.90	1.109	-	-	0.08	0.047	0.052
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	132322	1745	19.51	20.30	1.199	-	-	-0.09	0.046	0.055
	LTE Band 66C	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	132322+ 132520	1745+ 1764.8	19.42	20.30	1.225	-	-	0.03	0.044	0.054
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 5	DSI 5	132322	1745	19.51	20.30	1.199	-	-	0.11	0.037	0.044
	LTE Band 66	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 5	DSI 5	132322	1745	19.51	20.30	1.199	-	-	-0.15	0.035	0.042
	LTE Band 66	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 5	DSI 5	132322	1745	19.51	20.30	1.199	-	-	-0.14	0.026	0.031
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	132072	1720	19.44	20.30	1.219	-	-	0.08	0.038	0.046
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	132572	1770	19.48	20.30	1.208	-	-	-0.03	0.042	0.051
	LTE Band 66	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 5	DSI 5	132322	1745	19.47	20.30	1.211	-	-	-0.01	0.042	0.051
	LTE Band 66	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 5	DSI 5	132322	1745	19.47	20.30	1.211	-	-	0.12	0.027	0.033
	LTE Band 66	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 5	DSI 5	132322	1745	19.47	20.30	1.211	-	-	0.07	0.033	0.040
	LTE Band 66	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 5	DSI 5	132322	1745	19.47	20.30	1.211	-	-	-0.11	0.028	0.034
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	132322	1745	18.05	18.80	1.189	-	-	0.03	0.653	0.776
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	132322	1745	18.05	18.80	1.189	-	-	0.01	0.720	0.856
	LTE Band 66	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 6	DSI 5	132322	1745	18.05	18.80	1.189	-	-	-0.1	0.344	0.409
	LTE Band 66	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	132322	1745	18.05	18.80	1.189	-	-	0.08	0.552	0.656
11	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	132072	1720	17.76	18.80	1.271	-	-	-0.02	0.820	**1.042**
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	132572	1770	17.84	18.80	1.247	-	-	-0.04	0.648	0.808
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 10/15	132072	1720	17.41	18.30	1.227	-	-	-0.05	0.731	0.897
	LTE Band 66	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	132322	1745	18.02	18.80	1.197	-	-	-0.14	0.632	0.756
	LTE Band 66	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	132322	1745	18.02	18.80	1.197	-	-	0.16	0.720	0.862
	LTE Band 66	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 6	DSI 5	132322	1745	18.02	18.80	1.197	-	-	0.09	0.337	0.403
	LTE Band 66	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	132322	1745	18.02	18.80	1.197	-	-	-0.11	0.541	0.647
	LTE Band 66	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	132072	1720	17.70	18.80	1.288	-	-	0.13	0.799	1.029
	LTE Band 66	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	132572	1770	17.78	18.80	1.265	-	-	-0.16	0.620	0.784
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 6	DSI 5	132322	1745	17.96	18.80	1.213	-	-	0.16	0.698	0.847
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	132322	1745	20.36	20.60	1.057	-	-	-0.17	0.389	0.411
	LTE Band 66	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 7	DSI 5	132322	1745	20.36	20.60	1.057	-	-	0.05	0.067	0.071
	LTE Band 66	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5	132322	1745	20.36	20.60	1.057	-	-	0.14	0.340	0.359
	LTE Band 66	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 7	DSI 5	132322	1745	20.36	20.60	1.057	-	-	-0.04	0.083	0.088
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	132072	1720	20.34	20.60	1.062	-	-	0.06	0.476	0.505
	LTE Band 66	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	132572	1770	20.25	20.60	1.084	-	-	0.18	0.311	0.337
	LTE Band 66	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5	132322	1745	20.34	20.60	1.062	-	-	-0.03	0.363	0.385
	LTE Band 66	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 7	DSI 5	132322	1745	20.34	20.60	1.062	-	-	0.1	0.062	0.066
	LTE Band 66	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5	132322	1745	20.34	20.60	1.062	-	-	-0.16	0.333	0.354
	LTE Band 66	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 7	DSI 5	132322	1745	20.34	20.60	1.062	-	-	-0.15	0.082	0.087
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	349000	1745	19.77	20.30	1.130	-	-	0.07	0.378	0.427
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	349000	1745	19.77	20.30	1.130	-	-	0.17	0.061	0.069
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	349000	1745	19.77	20.30	1.130	-	-	0.03	0.367	0.415
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	349000	1745	19.77	20.30	1.130	-	-	0.08	0.049	0.055
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	349000	1745	19.67	20.30	1.156	-	-	0.02	0.463	0.535
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	349000	1745	19.67	20.30	1.156	-	-	0.15	0.070	0.081

	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	349000	1745	19.67	20.30	1.156	-	-	0.12	0.454	0.525
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	349000	1745	19.67	20.30	1.156	-	-	0.04	0.054	0.062
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	349000	1745	19.09	19.70	1.151	-	-	-0.11	0.040	0.046
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	349000	1745	19.09	19.70	1.151	-	-	0.1	0.026	0.030
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	349000	1745	19.09	19.70	1.151	-	-	0.09	0.037	0.043
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	349000	1745	19.09	19.70	1.151	-	-	-0.05	0.024	0.028
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	349000	1745	19.00	19.70	1.175	-	-	-0.15	0.038	0.045
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	349000	1745	19.00	19.70	1.175	-	-	0.03	0.025	0.029
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	349000	1745	19.00	19.70	1.175	-	-	-0.03	0.036	0.042
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	349000	1745	19.00	19.70	1.175	-	-	0.07	0.023	0.027
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	DSI 5	349000	1745	18.05	19.20	1.303	-	-	-0.18	0.812	1.058
12	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	349000	1745	18.05	19.20	1.303	-	-	-0.09	0.850	**1.108**
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	DSI 5	349000	1745	18.05	19.20	1.303	-	-	0.04	0.407	0.530
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	DSI 5	349000	1745	18.05	19.20	1.303	-	-	-0.11	0.650	0.847
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	DSI 10/15	349000	1745	17.06	18.20	1.300	-	-	0.06	0.623	0.810
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	DSI 10/15	349000	1745	17.06	18.20	1.300	-	-	0.05	0.660	0.858
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 6	DSI 5	349000	1745	18.01	19.20	1.315	-	-	0.15	0.775	1.019
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	349000	1745	18.01	19.20	1.315	-	-	-0.04	0.808	1.063
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 6	DSI 5	349000	1745	18.01	19.20	1.315	-	-	0.07	0.364	0.479
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 6	DSI 5	349000	1745	18.01	19.20	1.315	-	-	-0.17	0.618	0.813
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 6	DSI 5	349000	1745	17.94	19.20	1.337	-	-	0.08	0.753	1.006
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	349000	1745	17.94	19.20	1.337	-	-	-0.01	0.798	1.067
	FR1 n66	40M	QPSK	216	0	DFT-15	Left Tilted	0mm	Ant 6	DSI 5	349000	1745	17.94	19.20	1.337	-	-	0.08	0.611	0.817
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 7	DSI 5	349000	1745	20.19	21.00	1.205	-	-	0.03	0.632	0.762
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 7	DSI 5	349000	1745	20.19	21.00	1.205	-	-	-0.07	0.112	0.135
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	DSI 5	349000	1745	20.19	21.00	1.205	-	-	-0.15	0.489	0.589
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 7	DSI 5	349000	1745	20.19	21.00	1.205	-	-	0.07	0.129	0.156
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 7	DSI 5	349000	1745	20.13	21.00	1.222	-	-	0.09	0.612	0.748
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 7	DSI 5	349000	1745	20.13	21.00	1.222	-	-	0.16	0.110	0.134
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 7	DSI 5	349000	1745	20.13	21.00	1.222	-	-	-0.07	0.481	0.588
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 7	DSI 5	349000	1745	20.13	21.00	1.222	-	-	-0.17	0.126	0.154
1900MHz																				
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Right Cheek	0mm	Ant 5	DSI 5	661	1880	30.22	31.00	1.197	-	-	-0.02	0.053	0.063
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Right Tilted	0mm	Ant 5	DSI 5	661	1880	30.22	31.00	1.197	-	-	0.05	0.033	0.039
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Left Cheek	0mm	Ant 5	DSI 5	661	1880	30.22	31.00	1.197	-	-	-0.18	0.045	0.054
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Left Tilted	0mm	Ant 5	DSI 5	661	1880	30.22	31.00	1.197	-	-	-0.01	0.024	0.029
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Right Cheek	0mm	Ant 5	DSI 5	512	1850.2	30.07	31.00	1.239	-	-	0.1	0.054	0.067
13	GSM1900	-	-	-	-	GPRS(1Tx slots)	Right Cheek	0mm	Ant 5	DSI 5	810	1909.8	30.16	31.00	1.213	-	-	0.06	0.065	**0.079**
	GSM1900	-	-	-	-	DTM Multi-slot class 9	Right Cheek	0mm	Ant 5	DSI 5	810	1909.8	20.58	21.28	1.175	-	-	0.04	0.061	0.072
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	9400	1880	20.33	20.40	1.016	-	-	0.05	0.452	0.459
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 5	9400	1880	20.33	20.40	1.016	-	-	0.15	0.072	0.073
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 5	9400	1880	20.33	20.40	1.016	-	-	0.18	0.369	0.375
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 5	9400	1880	20.33	20.40	1.016	-	-	0.11	0.049	0.050
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	9262	1852.4	20.31	20.40	1.021	-	-	0.04	0.413	0.422
14	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 5	9538	1907.6	20.21	20.40	1.045	-	-	0.02	0.480	**0.501**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 5	9400	1880	19.21	19.80	1.146	-	-	-0.13	0.044	0.050
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	DSI 5	9400	1880	19.21	19.80	1.146	-	-	0.11	0.027	0.031
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	DSI 5	9400	1880	19.21	19.80	1.146	-	-	0.11	0.040	0.046
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	DSI 5	9400	1880	19.21	19.80	1.146	-	-	0.14	0.025	0.029
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 5	9262	1852.4	19.12	19.80	1.169	-	-	0.02	0.038	0.044

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	DSI 5	9538	1907.6	19.09	19.80	1.178	-	-	0.07	0.034	0.040
	LTE Band 25	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26340	1880	19.83	20.40	1.140	-	-	0.16	0.748	0.853
	LTE Band 25	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 0	DSI 5/10/15	26340	1880	19.83	20.40	1.140	-	-	0.15	0.130	0.148
	LTE Band 25	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5/10/15	26340	1880	19.83	20.40	1.140	-	-	-0.03	0.671	0.765
	LTE Band 25	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 0	DSI 5/10/15	26340	1880	19.83	20.40	1.140	-	-	0.04	0.085	0.097
	LTE Band 25	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26140	1860	19.76	20.40	1.159	-	-	0.06	0.824	0.955
	LTE Band 25	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26590	1905	19.72	20.40	1.169	-	-	0.09	0.626	0.732
	LTE Band 25	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26340	1880	19.80	20.40	1.148	-	-	-0.14	0.764	0.877
	LTE Band 25	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 0	DSI 5/10/15	26340	1880	19.80	20.40	1.148	-	-	-0.17	0.134	0.154
	LTE Band 25	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5/10/15	26340	1880	19.80	20.40	1.148	-	-	-0.03	0.688	0.790
	LTE Band 25	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 0	DSI 5/10/15	26340	1880	19.80	20.40	1.148	-	-	-0.13	0.091	0.104
15	LTE Band 25	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26140	1860	19.72	20.40	1.169	-	-	0.04	0.843	**0.986**
	LTE Band 25	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26590	1905	19.70	20.40	1.175	-	-	0.15	0.631	0.741
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26340	1880	19.64	20.40	1.191	-	-	-0.05	0.755	0.899
	LTE Band 25	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	26340	1880	18.39	19.30	1.233	-	-	0.11	0.038	0.047
	LTE Band 25	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 5	DSI 5	26340	1880	18.39	19.30	1.233	-	-	-0.09	0.024	0.030
	LTE Band 25	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 5	DSI 5	26340	1880	18.39	19.30	1.233	-	-	0.01	0.036	0.044
	LTE Band 25	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 5	DSI 5	26340	1880	18.39	19.30	1.233	-	-	0.01	0.022	0.027
	LTE Band 25	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	26140	1860	18.27	19.30	1.268	-	-	0.03	0.036	0.046
	LTE Band 25	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	26590	1905	18.28	19.30	1.265	-	-	-0.1	0.033	0.042
	LTE Band 25	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 5	DSI 5	26340	1880	18.33	19.30	1.250	-	-	-0.14	0.031	0.039
	LTE Band 25	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 5	DSI 5	26340	1880	18.33	19.30	1.250	-	-	-0.11	0.018	0.023
	LTE Band 25	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 5	DSI 5	26340	1880	18.33	19.30	1.250	-	-	0.02	0.029	0.036
	LTE Band 25	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 5	DSI 5	26340	1880	18.33	19.30	1.250	-	-	0.1	0.018	0.023
16	FR1 n25	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	376500	1882.5	19.24	19.80	1.138	-	-	0.02	0.310	**0.353**
	FR1 n25	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	376500	1882.5	19.24	19.80	1.138	-	-	-0.12	0.063	0.072
	FR1 n25	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	376500	1882.5	19.24	19.80	1.138	-	-	-0.01	0.250	0.284
	FR1 n25	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	376500	1882.5	19.24	19.80	1.138	-	-	0.02	0.031	0.035
	FR1 n25	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	376500	1882.5	19.18	19.80	1.153	-	-	0.01	0.286	0.330
	FR1 n25	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	376500	1882.5	19.18	19.80	1.153	-	-	-0.03	0.055	0.063
	FR1 n25	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	376500	1882.5	19.18	19.80	1.153	-	-	0.16	0.236	0.272
	FR1 n25	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	376500	1882.5	19.18	19.80	1.153	-	-	-0.14	0.028	0.032
	FR1 n25	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	376500	1882.5	19.17	19.70	1.130	-	-	0.04	0.039	0.044
	FR1 n25	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	376500	1882.5	19.17	19.70	1.130	-	-	0.12	0.028	0.032
	FR1 n25	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	376500	1882.5	19.17	19.70	1.130	-	-	0.05	0.035	0.040
	FR1 n25	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	376500	1882.5	19.17	19.70	1.130	-	-	0.09	0.024	0.027
	FR1 n25	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	376500	1882.5	19.05	19.70	1.161	-	-	0.02	0.040	0.046
	FR1 n25	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	376500	1882.5	19.05	19.70	1.161	-	-	0.01	0.024	0.028
	FR1 n25	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	376500	1882.5	19.05	19.70	1.161	-	-	0.08	0.034	0.039
	FR1 n25	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	376500	1882.5	19.05	19.70	1.161	-	-	0.14	0.021	0.024
2300MHz																				
17	LTE Band 30	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	0.09	0.821	**0.906**
	LTE Band 30	10M	QPSK	1	25	-	Right Tilted	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	-0.18	0.180	0.199
	LTE Band 30	10M	QPSK	1	25	-	Left Cheek	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	-0.18	0.802	0.885
	LTE Band 30	10M	QPSK	1	25	-	Left Tilted	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	-0.09	0.094	0.104
	LTE Band 30	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 0	DSI 10/15	27710	2310	20.46	20.90	1.107	-	-	0.11	0.682	0.755
	LTE Band 30	10M	QPSK	25	12	-	Right Cheek	0mm	Ant 0	DSI 5	27710	2310	21.37	21.90	1.130	-	-	0.02	0.798	0.902
	LTE Band 30	10M	QPSK	25	12	-	Right Tilted	0mm	Ant 0	DSI 5	27710	2310	21.37	21.90	1.130	-	-	-0.12	0.168	0.190
	LTE Band 30	10M	QPSK	25	12	-	Left Cheek	0mm	Ant 0	DSI 5	27710	2310	21.37	21.90	1.130	-	-	-0.05	0.745	0.842
	LTE Band 30	10M	QPSK	25	12	-	Left Tilted	0mm	Ant 0	DSI 5	27710	2310	21.37	21.90	1.130	-	-	0.09	0.083	0.094
	LTE Band 30	10M	QPSK	50	0	-	Right Cheek	0mm	Ant 0	DSI 5	27710	2310	21.29	21.90	1.151	-	-	-0.18	0.753	0.867
	LTE Band 30	10M	QPSK	50	0	-	Left Cheek	0mm	Ant 0	DSI 5	27710	2310	21.29	21.90	1.151	-	-	-0.01	0.714	0.822
	LTE Band 30	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 5	DSI 5/10/15	27710	2310	19.80	20.30	1.122	-	-	-0.06	0.076	0.085
	LTE Band 30	10M	QPSK	1	25	-	Right Tilted	0mm	Ant 5	DSI 5/10/15	27710	2310	19.80	20.30	1.122	-	-	0.01	0.021	0.024
	LTE Band 30	10M	QPSK	1	25	-	Left Cheek	0mm	Ant 5	DSI 5/10/15	27710	2310	19.80	20.30	1.122	-	-	0.11	0.053	0.059
	LTE Band 30	10M	QPSK	1	25	-	Left Tilted	0mm	Ant 5	DSI 5/10/15	27710	2310	19.80	20.30	1.122	-	-	-0.03	0.041	0.046

	LTE Band 30	10M	QPSK	25	12	-	Right Cheek	0mm	Ant 5	DSI 5/10/15	27710	2310	19.62	20.30	1.169	-	-	-0.07	0.073	0.085
	LTE Band 30	10M	QPSK	25	12	-	Right Tilted	0mm	Ant 5	DSI 5/10/15	27710	2310	19.62	20.30	1.169	-	-	0.08	0.017	0.020
	LTE Band 30	10M	QPSK	25	12	-	Left Cheek	0mm	Ant 5	DSI 5/10/15	27710	2310	19.62	20.30	1.169	-	-	0.07	0.051	0.060
	LTE Band 30	10M	QPSK	25	12	-	Left Tilted	0mm	Ant 5	DSI 5/10/15	27710	2310	19.62	20.30	1.169	-	-	0.05	0.038	0.044
18	FR1 n30	10M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	462000	2310	19.10	19.80	1.175	-	-	0.19	0.466	**0.548**
	FR1 n30	10M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	462000	2310	19.10	19.80	1.175	-	-	-0.13	0.080	0.094
	FR1 n30	10M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	462000	2310	19.10	19.80	1.175	-	-	0.17	0.377	0.443
	FR1 n30	10M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	462000	2310	19.10	19.80	1.175	-	-	-0.02	0.043	0.051
	FR1 n30	10M	QPSK	25	14	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	462000	2310	19.03	19.80	1.194	-	-	0.02	0.449	0.536
	FR1 n30	10M	QPSK	25	14	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	462000	2310	19.03	19.80	1.194	-	-	-0.03	0.077	0.092
	FR1 n30	10M	QPSK	25	14	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	462000	2310	19.03	19.80	1.194	-	-	-0.13	0.363	0.433
	FR1 n30	10M	QPSK	25	14	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	462000	2310	19.03	19.80	1.194	-	-	0.15	0.044	0.053
	FR1 n30	10M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	462000	2310	16.76	17.70	1.242	-	-	0.1	0.021	0.026
	FR1 n30	10M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	462000	2310	16.76	17.70	1.242	-	-	-0.15	0.007	0.009
	FR1 n30	10M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	462000	2310	16.76	17.70	1.242	-	-	0.11	0.015	0.019
	FR1 n30	10M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	462000	2310	16.76	17.70	1.242	-	-	-0.11	0.012	0.015
	FR1 n30	10M	QPSK	25	14	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	462000	2310	16.69	17.70	1.262	-	-	-0.16	0.020	0.025
	FR1 n30	10M	QPSK	25	14	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	462000	2310	16.69	17.70	1.262	-	-	-0.02	0.005	0.006
	FR1 n30	10M	QPSK	25	14	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	462000	2310	16.69	17.70	1.262	-	-	0.13	0.013	0.016
	FR1 n30	10M	QPSK	25	14	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	462000	2310	16.69	17.70	1.262	-	-	0.05	0.011	0.014
2600MHz																				
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	21100	2535	22.65	22.90	1.059	-	-	0.09	0.982	1.040
	LTE Band 7	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 0	DSI 5	21100	2535	22.65	22.90	1.059	-	-	-0.1	0.254	0.269
	LTE Band 7	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	21100	2535	22.65	22.90	1.059	-	-	-0.04	0.761	0.806
	LTE Band 7	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 0	DSI 5	21100	2535	22.65	22.90	1.059	-	-	-0.01	0.096	0.102
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	20850	2510	22.58	22.90	1.076	-	-	-0.13	0.878	0.945
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	21350	2560	22.60	22.90	1.072	-	-	-0.07	1.010	1.082
	LTE Band 7	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	20850	2510	22.58	22.90	1.076	-	-	0.15	0.768	0.827
	LTE Band 7	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	21350	2560	22.60	22.90	1.072	-	-	0.03	0.809	0.867
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	21100	2535	22.64	22.90	1.062	-	-	-0.17	0.940	0.998
	LTE Band 7	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 0	DSI 5	21100	2535	22.64	22.90	1.062	-	-	0.09	0.164	0.174
	LTE Band 7	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5	21100	2535	22.64	22.90	1.062	-	-	0.17	0.782	0.830
	LTE Band 7	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 0	DSI 5	21100	2535	22.64	22.90	1.062	-	-	-0.15	0.109	0.116
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	20850	2510	22.60	22.90	1.072	-	-	0.02	0.900	0.964
19	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	21350	2560	22.58	22.90	1.076	-	-	-0.06	1.040	**1.120**
	LTE Band 7C	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	21350+ 21152	2560+ 2540.2	22.46	22.90	1.107	-	-	0.02	0.942	1.042
	LTE Band 7	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5	20850	2510	22.60	22.90	1.072	-	-	-0.15	0.792	0.849
	LTE Band 7	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5	21350	2560	22.58	22.90	1.076	-	-	0.03	0.842	0.906
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 10/15	21350	2560	21.48	21.90	1.102	-	-	0.02	0.833	0.918
	LTE Band 7C	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 10/15	21350+ 21152	2560+ 2540.2	21.45	21.90	1.109	-	-	0.04	0.816	0.905
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 0	DSI 5	21100	2535	22.58	22.90	1.076	-	-	0.02	1.010	1.087
	LTE Band 7	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 0	DSI 5	21100	2535	22.58	22.90	1.076	-	-	0.11	0.839	0.903
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	21100	2535	20.23	20.80	1.140	-	-	-0.17	0.092	0.105
	LTE Band 7C	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	21100+ 21298	2535+ 2554.8	19.93	20.80	1.222	-	-	-0.01	0.078	0.095
	LTE Band 7	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 5	DSI 5	21100	2535	20.23	20.80	1.140	-	-	0.06	0.014	0.016
	LTE Band 7	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 5	DSI 5	21100	2535	20.23	20.80	1.140	-	-	0.04	0.060	0.068
	LTE Band 7	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 5	DSI 5	21100	2535	20.23	20.80	1.140	-	-	0.08	0.010	0.011
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	20850	2510	20.15	20.80	1.161	-	-	-0.15	0.075	0.087
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	21350	2560	20.15	20.80	1.161	-	-	-0.06	0.079	0.092
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 5	DSI 5	21100	2535	20.22	20.80	1.143	-	-	-0.14	0.088	0.101
	LTE Band 7	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 5	DSI 5	21100	2535	20.22	20.80	1.143	-	-	0.02	0.012	0.014
	LTE Band 7	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 5	DSI 5	21100	2535	20.22	20.80	1.143	-	-	0.02	0.062	0.071
	LTE Band 7	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 5	DSI 5	21100	2535	20.22	20.80	1.143	-	-	-0.13	0.008	0.009
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	21100	2535	17.82	18.30	1.117	-	-	0.12	0.684	0.764
	LTE Band 7	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	21100	2535	17.82	18.30	1.117	-	-	-0.06	0.724	0.809

	LTE Band 7	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 6	DSI 5	21100	2535	17.82	18.30	1.117	-	-	-0.15	0.453	0.506
	LTE Band 7	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	21100	2535	17.82	18.30	1.117	-	-	-0.06	0.575	0.642
	LTE Band 7	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	20850	2510	17.76	18.30	1.132	-	-	0.16	0.755	0.855
	LTE Band 7	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	21350	2560	17.79	18.30	1.125	-	-	-0.13	0.583	0.656
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	21100	2535	17.73	18.30	1.140	-	-	0.18	0.623	0.710
	LTE Band 7	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	21100	2535	17.73	18.30	1.140	-	-	-0.05	0.725	0.827
	LTE Band 7	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 6	DSI 5	21100	2535	17.73	18.30	1.140	-	-	-0.07	0.456	0.520
	LTE Band 7	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	21100	2535	17.73	18.30	1.140	-	-	-0.04	0.582	0.664
	LTE Band 7	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	20850	2510	17.68	18.30	1.153	-	-	-0.13	0.759	0.875
	LTE Band 7	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	21350	2560	17.69	18.30	1.151	-	-	0.04	0.608	0.700
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 6	DSI 5	21100	2535	17.78	18.30	1.127	-	-	0.18	0.716	0.807
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	21100	2535	20.08	20.10	1.005	-	-	-0.11	0.876	0.880
	LTE Band 7	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 7	DSI 5/10/15	21100	2535	20.08	20.10	1.005	-	-	-0.07	0.090	0.090
	LTE Band 7	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5/10/15	21100	2535	20.08	20.10	1.005	-	-	0.01	0.502	0.504
	LTE Band 7	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 7	DSI 5/10/15	21100	2535	20.08	20.10	1.005	-	-	-0.08	0.131	0.132
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	20850	2510	19.97	20.10	1.030	-	-	-0.08	0.713	0.735
	LTE Band 7	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	21350	2560	19.91	20.10	1.045	-	-	0.02	0.765	0.799
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	21100	2535	19.95	20.10	1.035	-	-	-0.12	0.841	0.871
	LTE Band 7	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 7	DSI 5/10/15	21100	2535	19.95	20.10	1.035	-	-	-0.14	0.088	0.091
	LTE Band 7	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5/10/15	21100	2535	19.95	20.10	1.035	-	-	-0.14	0.485	0.502
	LTE Band 7	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 7	DSI 5/10/15	21100	2535	19.95	20.10	1.035	-	-	-0.12	0.130	0.135
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	20850	2510	19.91	20.10	1.045	-	-	-0.17	0.742	0.775
	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	21350	2560	19.74	20.10	1.086	-	-	-0.1	0.755	0.820
	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	21100	2535	19.95	20.10	1.035	-	-	0.01	0.722	0.747
20	LTE Band 38	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	38000	2595	24.09	24.40	1.074	62.9	1.006	0.02	0.925	**0.999**
	LTE Band 38	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 0	DSI 5/10/15	38000	2595	24.09	24.40	1.074	62.9	1.006	-0.1	0.170	0.184
	LTE Band 38	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5/10/15	38000	2595	24.09	24.40	1.074	62.9	1.006	0.04	0.783	0.846
	LTE Band 38	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 0	DSI 5/10/15	38000	2595	24.09	24.40	1.074	62.9	1.006	-0.07	0.190	0.205
	LTE Band 38	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	38000	2595	23.10	23.40	1.072	62.9	1.006	-0.02	0.718	0.774
	LTE Band 38	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 0	DSI 5/10/15	38000	2595	23.10	23.40	1.072	62.9	1.006	0.11	0.135	0.146
	LTE Band 38	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5/10/15	38000	2595	23.10	23.40	1.072	62.9	1.006	-0.17	0.616	0.664
	LTE Band 38	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 0	DSI 5/10/15	38000	2595	23.10	23.40	1.072	62.9	1.006	-0.02	0.150	0.162
	LTE Band 38	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	38000	2595	23.09	23.40	1.074	62.9	1.006	0.07	0.700	0.756
	LTE Band 38	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 0	DSI 5/10/15	38000	2595	23.09	23.40	1.074	62.9	1.006	0.12	0.605	0.654
	LTE Band 38	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	38000	2595	22.18	22.80	1.153	62.9	1.006	-0.18	0.040	0.046
	LTE Band 38	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 5	DSI 5	38000	2595	22.18	22.80	1.153	62.9	1.006	0.04	0.012	0.014
	LTE Band 38	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 5	DSI 5	38000	2595	22.18	22.80	1.153	62.9	1.006	-0.11	0.030	0.035
	LTE Band 38	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 5	DSI 5	38000	2595	22.18	22.80	1.153	62.9	1.006	-0.05	0.007	0.008
	LTE Band 38	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 5	DSI 5	38000	2595	22.11	22.80	1.172	62.9	1.006	-0.09	0.033	0.039
	LTE Band 38	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 5	DSI 5	38000	2595	22.11	22.80	1.172	62.9	1.006	-0.04	0.009	0.011
	LTE Band 38	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 5	DSI 5	38000	2595	22.11	22.80	1.172	62.9	1.006	0.07	0.025	0.029
	LTE Band 38	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 5	DSI 5	38000	2595	22.11	22.80	1.172	62.9	1.006	-0.08	0.006	0.007
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	40620	2593	23.50	23.80	1.072	62.9	1.006	-0.05	0.700	0.755
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 0	DSI 5	40620	2593	23.50	23.80	1.072	62.9	1.006	-0.01	0.152	0.164
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	40620	2593	23.50	23.80	1.072	62.9	1.006	0.04	0.621	0.669
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 0	DSI 5	40620	2593	23.50	23.80	1.072	62.9	1.006	-0.05	0.148	0.160
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	39750	2506	23.42	23.80	1.091	62.9	1.006	-0.15	0.701	0.770
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	40185	2549.5	23.47	23.80	1.079	62.9	1.006	-0.14	0.784	0.851
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	41055	2636.5	23.47	23.80	1.079	62.9	1.006	-0.09	0.827	0.898
	LTE Band 41C	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	41055+ 41253	2636.5+ 2656.3	23.43	23.80	1.089	62.9	1.006	0.04	0.814	0.892
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	41490	2680	23.48	23.80	1.076	62.9	1.006	0.1	0.738	0.799
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	39750	2506	23.42	23.80	1.091	62.9	1.006	-0.08	0.572	0.628
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	40185	2549.5	23.47	23.80	1.079	62.9	1.006	-0.1	0.610	0.662
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	41055	2636.5	23.47	23.80	1.079	62.9	1.006	-0.02	0.611	0.663
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 0	DSI 5	41490	2680	23.48	23.80	1.076	62.9	1.006	0.07	0.622	0.674
	LTE Band 41 PC2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 0	DSI 5	41055	2636.5	25.37	25.80	1.104	42.9	1.009	-0.08	0.870	0.969

	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	40620	2593	22.53	22.80	1.064	62.9	1.006	-0.09	0.611	0.654
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 0	DSI 5	40620	2593	22.53	22.80	1.064	62.9	1.006	-0.09	0.149	0.160
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 0	DSI 5	40620	2593	22.53	22.80	1.064	62.9	1.006	-0.18	0.512	0.548
	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 0	DSI 5	40620	2593	22.53	22.80	1.064	62.9	1.006	-0.03	0.067	0.072
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	39750	2506	22.45	22.80	1.084	62.9	1.006	0.13	0.568	0.619
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	40185	2549.5	22.48	22.80	1.076	62.9	1.006	-0.06	0.620	0.671
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	41055	2636.5	22.52	22.80	1.067	62.9	1.006	0.07	0.655	0.703
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	41490	2680	22.44	22.80	1.086	62.9	1.006	-0.16	0.586	0.640
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 0	DSI 5	40620	2593	22.48	22.80	1.076	62.9	1.006	-0.03	0.712	0.771
	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 0	DSI 5	40620	2593	22.48	22.80	1.076	62.9	1.006	0.09	0.522	0.565
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	40620	2593	21.20	21.80	1.148	62.9	1.006	0.1	0.048	0.055
	LTE Band 41C	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	40620+ 40818	2593+ 2612.8	21.10	21.80	1.175	62.9	1.006	0.01	0.040	0.047
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 5	DSI 5	40620	2593	21.20	21.80	1.148	62.9	1.006	-0.15	0.027	0.031
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 5	DSI 5	40620	2593	21.20	21.80	1.148	62.9	1.006	-0.13	0.028	0.032
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 5	DSI 5	40620	2593	21.20	21.80	1.148	62.9	1.006	0.08	0.025	0.029
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	39750	2506	21.13	21.80	1.167	62.9	1.006	-0.09	0.039	0.046
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	40185	2549.5	21.08	21.80	1.180	62.9	1.006	-0.03	0.030	0.036
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	41055	2636.5	21.03	21.80	1.194	62.9	1.006	0.11	0.039	0.047
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	41490	2680	21.10	21.80	1.175	62.9	1.006	0	0.040	0.047
	LTE Band 41 PC2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 5	DSI 5	40620	2593	22.81	23.40	1.146	42.9	1.009	0.06	0.051	0.059
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 5	DSI 5	40620	2593	21.15	21.80	1.161	62.9	1.006	-0.02	0.038	0.044
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 5	DSI 5	40620	2593	21.15	21.80	1.161	62.9	1.006	-0.03	0.025	0.029
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 5	DSI 5	40620	2593	21.15	21.80	1.161	62.9	1.006	0.11	0.030	0.035
	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 5	DSI 5	40620	2593	21.15	21.80	1.161	62.9	1.006	0.13	0.023	0.027
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	40620	2593	19.81	20.30	1.119	62.9	1.006	0.06	0.751	0.846
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	40620	2593	19.81	20.30	1.119	62.9	1.006	-0.02	0.637	0.717
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 6	DSI 5	40620	2593	19.81	20.30	1.119	62.9	1.006	-0.09	0.450	0.507
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	40620	2593	19.81	20.30	1.119	62.9	1.006	-0.14	0.602	0.678
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	39750	2506	19.75	20.30	1.135	62.9	1.006	-0.16	0.615	0.702
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	40185	2549.5	19.69	20.30	1.151	62.9	1.006	0.07	0.629	0.728
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	41055	2636.5	19.75	20.30	1.135	62.9	1.006	-0.02	0.932	1.064
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	41490	2680	19.73	20.30	1.140	62.9	1.006	-0.01	0.645	0.740
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	39750	2506	19.75	20.30	1.135	62.9	1.006	0.06	0.670	0.765
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	40185	2549.5	19.69	20.30	1.151	62.9	1.006	0.18	0.572	0.662
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	41055	2636.5	19.75	20.30	1.135	62.9	1.006	0.07	0.684	0.781
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	41490	2680	19.73	20.30	1.140	62.9	1.006	-0.13	0.625	0.717
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	39750	2506	19.75	20.30	1.135	62.9	1.006	-0.11	0.620	0.708
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	40185	2549.5	19.69	20.30	1.151	62.9	1.006	0.15	0.523	0.605
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	41055	2636.5	19.75	20.30	1.135	62.9	1.006	-0.02	0.624	0.712
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	41490	2680	19.73	20.30	1.140	62.9	1.006	0.09	0.575	0.660
21	LTE Band 41 PC2	20M	QPSK	1	49		Right Cheek	0mm	Ant 6	DSI 5	41055	2636.5	21.40	21.90	1.122	42.9	1.009	0.08	0.958	**1.085**
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 10/15	41055	2636.5	18.73	19.30	1.140	62.9	1.006	0.02	0.730	0.837
	LTE Band 41 PC2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 10/15	41055	2636.5	20.40	20.90	1.122	42.9	1.009	0.03	0.735	0.832
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	40620	2593	19.76	20.30	1.132	62.9	1.006	0.18	0.706	0.804
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	40620	2593	19.76	20.30	1.132	62.9	1.006	-0.05	0.593	0.676
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 6	DSI 5	40620	2593	19.76	20.30	1.132	62.9	1.006	0.15	0.421	0.480
	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	40620	2593	19.76	20.30	1.132	62.9	1.006	-0.14	0.575	0.655
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	39750	2506	19.70	20.30	1.148	62.9	1.006	-0.02	0.557	0.643
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	40185	2549.5	19.65	20.30	1.161	62.9	1.006	-0.02	0.614	0.717
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	41055	2636.5	19.72	20.30	1.143	62.9	1.006	-0.03	0.743	0.854
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	41490	2680	19.68	20.30	1.153	62.9	1.006	0.08	0.636	0.738
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	39750	2506	19.70	20.30	1.148	62.9	1.006	-0.01	0.676	0.781
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	40185	2549.5	19.65	20.30	1.161	62.9	1.006	-0.01	0.586	0.685
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	41055	2636.5	19.72	20.30	1.143	62.9	1.006	0.05	0.540	0.621
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	41490	2680	19.68	20.30	1.153	62.9	1.006	-0.18	0.522	0.606
	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	39750	2506	19.70	20.30	1.148	62.9	1.006	-0.14	0.634	0.732

	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	40185	2549.5	19.65	20.30	1.161	62.9	1.006	0.02	0.531	0.620
	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	41055	2636.5	19.72	20.30	1.143	62.9	1.006	-0.05	0.492	0.566
	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	41490	2680	19.68	20.30	1.153	62.9	1.006	-0.08	0.482	0.559
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	DSI 5	40620	2593	19.72	20.30	1.143	62.9	1.006	0.14	0.670	0.770
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 6	DSI 5	40620	2593	19.72	20.30	1.143	62.9	1.006	0.01	0.580	0.667
	LTE Band 41	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 6	DSI 5	40620	2593	19.72	20.30	1.143	62.9	1.006	0.07	0.554	0.637
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	40620	2593	23.78	24.00	1.052	62.9	1.006	0.02	0.718	0.760
	LTE Band 41	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 7	DSI 5	40620	2593	23.78	24.00	1.052	62.9	1.006	0.16	0.102	0.108
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5	40620	2593	23.78	24.00	1.052	62.9	1.006	-0.18	0.703	0.744
	LTE Band 41	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 7	DSI 5	40620	2593	23.78	24.00	1.052	62.9	1.006	0.14	0.197	0.208
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	39750	2506	23.75	24.00	1.059	62.9	1.006	0.03	0.520	0.554
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	40185	2549.5	23.67	24.00	1.079	62.9	1.006	-0.09	0.741	0.804
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	41055	2636.5	23.77	24.00	1.054	62.9	1.006	-0.11	0.550	0.583
	LTE Band 41	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	41490	2680	23.69	24.00	1.074	62.9	1.006	-0.16	0.419	0.453
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5	39750	2506	23.75	24.00	1.059	62.9	1.006	-0.11	0.466	0.497
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5	40185	2549.5	23.67	24.00	1.079	62.9	1.006	0.04	0.710	0.771
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5	41055	2636.5	23.77	24.00	1.054	62.9	1.006	-0.04	0.452	0.479
	LTE Band 41	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5	41490	2680	23.69	24.00	1.074	62.9	1.006	0.15	0.298	0.322
	LTE Band 41 PC2	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5	40185	2549.5	24.48	24.60	1.028	42.9	1.009	0.04	0.610	0.633
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5	40620	2593	22.96	23.00	1.009	62.9	1.006	0.16	0.645	0.655
	LTE Band 41	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 7	DSI 5	40620	2593	22.96	23.00	1.009	62.9	1.006	0.16	0.090	0.091
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5	40620	2593	22.96	23.00	1.009	62.9	1.006	-0.15	0.630	0.640
	LTE Band 41	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 7	DSI 5	40620	2593	22.96	23.00	1.009	62.9	1.006	-0.09	0.170	0.173
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5	39750	2506	22.79	23.00	1.050	62.9	1.006	-0.12	0.455	0.480
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5	40185	2549.5	22.75	23.00	1.059	62.9	1.006	0.04	0.660	0.703
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5	41055	2636.5	22.87	23.00	1.030	62.9	1.006	0.16	0.489	0.507
	LTE Band 41	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5	41490	2680	22.91	23.00	1.021	62.9	1.006	0.14	0.405	0.416
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5	39750	2506	22.79	23.00	1.050	62.9	1.006	-0.03	0.355	0.375
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5	40185	2549.5	22.75	23.00	1.059	62.9	1.006	0.04	0.530	0.565
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5	41055	2636.5	22.87	23.00	1.030	62.9	1.006	-0.12	0.349	0.362
	LTE Band 41	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5	41490	2680	22.91	23.00	1.021	62.9	1.006	-0.05	0.375	0.385
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 7	DSI 5	40620	2593	22.92	23.00	1.019	62.9	1.006	-0.06	0.655	0.671
	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 7	DSI 5	40620	2593	22.92	23.00	1.019	62.9	1.006	0.11	0.622	0.637
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	507000	2535	21.26	22.30	1.271	-	-	-0.09	0.850	1.080
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	507000	2535	21.26	22.30	1.271	-	-	-0.03	0.254	0.323
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	507000	2535	21.26	22.30	1.271	-	-	0.01	0.702	0.892
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	507000	2535	21.26	22.30	1.271	-	-	-0.14	0.110	0.140
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	507000	2535	21.24	22.30	1.276	-	-	-0.02	0.875	1.117
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 0	DSI 5	507000	2535	21.24	22.30	1.276	-	-	-0.05	0.262	0.334
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	507000	2535	21.24	22.30	1.276	-	-	-0.18	0.657	0.839
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 0	DSI 5	507000	2535	21.24	22.30	1.276	-	-	-0.01	0.105	0.134
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 0	DSI 10/15	507000	2535	20.22	21.30	1.282	-	-	-0.03	0.688	0.882
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 0	DSI 5	507000	2535	21.21	22.30	1.285	-	-	-0.15	0.864	1.110
	FR1 n7	40M	QPSK	216	0	DFT-15	Left Cheek	0mm	Ant 0	DSI 5	507000	2535	21.21	22.30	1.285	-	-	0.1	0.670	0.861
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	507000	2535	19.01	20.20	1.315	-	-	0.08	0.058	0.076
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	507000	2535	19.01	20.20	1.315	-	-	0.09	0.011	0.014
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	507000	2535	19.01	20.20	1.315	-	-	-0.01	0.045	0.059
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	507000	2535	19.01	20.20	1.315	-	-	-0.07	0.008	0.011
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	DSI 5	507000	2535	18.92	20.20	1.343	-	-	0.12	0.054	0.073
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	DSI 5	507000	2535	18.92	20.20	1.343	-	-	0.06	0.010	0.013
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	DSI 5	507000	2535	18.92	20.20	1.343	-	-	0.08	0.041	0.055
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	DSI 5	507000	2535	18.92	20.20	1.343	-	-	-0.13	0.008	0.011
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	DSI 5	507000	2535	18.10	19.20	1.288	-	-	-0.14	0.802	1.033
22	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	507000	2535	18.10	19.20	1.288	-	-	-0.14	0.916	**1.180**
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	DSI 5	507000	2535	18.10	19.20	1.288	-	-	-0.07	0.614	0.791
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	DSI 5	507000	2535	18.10	19.20	1.288	-	-	-0.1	0.738	0.951

	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	DSI 10/15	507000	2535	17.67	18.70	1.268	-	-	0.03	0.693	0.878
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	DSI 10/15	507000	2535	17.67	18.70	1.268	-	-	-0.14	0.752	0.953
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 6	DSI 5	507000	2535	18.06	19.20	1.300	-	-	0.12	0.778	1.012
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	507000	2535	18.06	19.20	1.300	-	-	0.13	0.897	1.166
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 6	DSI 5	507000	2535	18.06	19.20	1.300	-	-	-0.16	0.561	0.729
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 6	DSI 5	507000	2535	18.06	19.20	1.300	-	-	0.02	0.700	0.910
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 6	DSI 5	507000	2535	18.02	19.20	1.312	-	-	-0.15	0.729	0.957
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	507000	2535	18.02	19.20	1.312	-	-	0.09	0.883	1.159
	FR1 n7	40M	QPSK	216	0	DFT-15	Left Tilted	0mm	Ant 6	DSI 5	507000	2535	18.02	19.20	1.312	-	-	-0.11	0.670	0.879
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 7	DSI 5	507000	2535	19.52	20.50	1.253	-	-	-0.17	0.836	1.048
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 7	DSI 5	507000	2535	19.52	20.50	1.253	-	-	-0.02	0.081	0.102
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	DSI 5	507000	2535	19.52	20.50	1.253	-	-	-0.02	0.382	0.479
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 7	DSI 5	507000	2535	19.52	20.50	1.253	-	-	-0.02	0.122	0.153
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 7	DSI 5	507000	2535	19.46	20.50	1.271	-	-	0.05	0.870	1.105
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 7	DSI 5	507000	2535	19.46	20.50	1.271	-	-	0.11	0.096	0.122
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 7	DSI 5	507000	2535	19.46	20.50	1.271	-	-	0.13	0.345	0.438
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 7	DSI 5	507000	2535	19.46	20.50	1.271	-	-	-0.15	0.108	0.137
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 7	DSI 10/15	507000	2535	18.52	19.50	1.253	-	-	0.05	0.752	0.942
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 7	DSI 5	507000	2535	19.45	20.50	1.274	-	-	-0.15	0.816	1.039
23	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	DSI 5	519000	2595	19.72	20.80	1.282	-	-	-0.09	0.861	**1.104**
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	DSI 5	519000	2595	19.72	20.80	1.282	-	-	0.05	0.224	0.287
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	DSI 5	519000	2595	19.72	20.80	1.282	-	-	0.03	0.705	0.904
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	DSI 5	519000	2595	19.72	20.80	1.282	-	-	0.08	0.100	0.128
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	DSI 10/15	519000	2595	18.90	19.80	1.230	-	-	-0.02	0.710	0.873
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 0	DSI 5	519000	2595	19.58	20.80	1.324	-	-	0.05	0.812	1.075
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 0	DSI 5	519000	2595	19.58	20.80	1.324	-	-	-0.04	0.207	0.274
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 0	DSI 5	519000	2595	19.58	20.80	1.324	-	-	0.02	0.650	0.861
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 0	DSI 5	519000	2595	19.58	20.80	1.324	-	-	0	0.094	0.124
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 0	DSI 5	519000	2595	19.45	20.80	1.365	-	-	0.06	0.791	1.079
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 0	DSI 5	519000	2595	19.45	20.80	1.365	-	-	0.03	0.655	0.894
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	DSI 5	518598	2592.99	19.78	20.70	1.236	-	-	-0.03	0.627	0.775
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	DSI 5	518598	2592.99	19.78	20.70	1.236	-	-	-0.01	0.215	0.266
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	DSI 5	518598	2592.99	19.78	20.70	1.236	-	-	0.18	0.482	0.596
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	DSI 5	518598	2592.99	19.78	20.70	1.236	-	-	0.17	0.093	0.115
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	DSI 5	518598	2592.99	19.75	20.70	1.245	-	-	-0.12	0.672	0.837
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	DSI 5	518598	2592.99	19.75	20.70	1.245	-	-	0.09	0.224	0.279
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	DSI 5	518598	2592.99	19.75	20.70	1.245	-	-	-0.08	0.500	0.622
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	DSI 5	518598	2592.99	19.75	20.70	1.245	-	-	0.04	0.101	0.126
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 0	DSI 5	518598	2592.99	19.74	20.70	1.247	-	-	0.01	0.601	0.750
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 0	DSI 5	518598	2592.99	19.74	20.70	1.247	-	-	0.08	0.492	0.614
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	518598	2592.99	17.53	18.20	1.167	-	-	0.08	0.036	0.042
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	518598	2592.99	17.53	18.20	1.167	-	-	-0.06	0.015	0.018
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	518598	2592.99	17.53	18.20	1.167	-	-	0.13	0.028	0.033
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	518598	2592.99	17.53	18.20	1.167	-	-	-0.09	0.011	0.013
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	DSI 5	518598	2592.99	17.49	18.20	1.178	-	-	0.12	0.032	0.038
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	DSI 5	518598	2592.99	17.49	18.20	1.178	-	-	0.09	0.013	0.015
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	DSI 5	518598	2592.99	17.49	18.20	1.178	-	-	0.14	0.022	0.026
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	DSI 5	518598	2592.99	17.49	18.20	1.178	-	-	0.02	0.010	0.012
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.88	18.20	1.076	-	-	0.12	0.840	0.904
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.88	18.20	1.076	-	-	-0.07	0.677	0.729
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.88	18.20	1.076	-	-	0.12	0.650	0.700
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.88	18.20	1.076	-	-	0.12	0.728	0.784
24	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.79	18.20	1.099	-	-	-0.14	0.966	**1.062**
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.79	18.20	1.099	-	-	0.03	0.824	0.906
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.79	18.20	1.099	-	-	0.03	0.568	0.624
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.79	18.20	1.099	-	-	0.02	0.610	0.670

	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 10/15	518598	2592.99	17.34	17.70	1.086	-	-	-0.14	0.804	0.873
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.81	18.20	1.094	-	-	-0.05	0.931	1.018
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.81	18.20	1.094	-	-	-0.09	0.820	0.897
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	518598	2592.99	17.81	18.20	1.094	-	-	-0.05	0.575	0.629
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	518598	2592.99	17.81	18.20	1.094	-	-	0.13	0.610	0.667
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	518598	2592.99	20.80	21.60	1.202	-	-	0.17	0.871	1.047
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	DSI 5	518598	2592.99	20.80	21.60	1.202	-	-	0.13	0.103	0.124
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	DSI 5	518598	2592.99	20.80	21.60	1.202	-	-	0.14	0.420	0.505
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	DSI 5	518598	2592.99	20.80	21.60	1.202	-	-	0.15	0.129	0.155
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	DSI 10/15	518598	2592.99	19.83	20.60	1.194	-	-	0.17	0.681	0.813
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	518598	2592.99	20.63	21.60	1.250	-	-	0.1	0.826	1.033
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	DSI 5	518598	2592.99	20.63	21.60	1.250	-	-	-0.18	0.095	0.119
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	DSI 5	518598	2592.99	20.63	21.60	1.250	-	-	-0.09	0.338	0.423
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	DSI 5	518598	2592.99	20.63	21.60	1.250	-	-	0.01	0.099	0.124
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	518598	2592.99	20.51	21.60	1.285	-	-	-0.09	0.800	1.028
3000-4000MHz																				
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	55830	3609	14.10	14.30	1.047	62.9	1.006	0.08	0.267	0.281
	LTE Band 48C	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	55830+ 56028	3609+ 3628.8	14.09	14.30	1.050	62.9	1.006	0.04	0.147	0.155
	LTE Band 48	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 6	DSI 5	55830	3609	14.10	14.30	1.047	62.9	1.006	-0.1	0.226	0.238
	LTE Band 48	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 6	DSI 5	55830	3609	14.10	14.30	1.047	62.9	1.006	0.12	0.132	0.139
	LTE Band 48	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 6	DSI 5	55830	3609	14.10	14.30	1.047	62.9	1.006	-0.09	0.140	0.147
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	55340	3560	13.92	14.30	1.091	62.9	1.006	-0.04	0.242	0.266
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	56150	3641	14.05	14.30	1.059	62.9	1.006	-0.09	0.198	0.211
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 6	DSI 5	56640	3690	13.97	14.30	1.079	62.9	1.006	0.15	0.171	0.186
	LTE Band 48	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 6	DSI 5	55830	3609	14.07	14.30	1.054	62.9	1.006	-0.02	0.245	0.260
	LTE Band 48	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 6	DSI 5	55830	3609	14.07	14.30	1.054	62.9	1.006	0.16	0.220	0.233
	LTE Band 48	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 6	DSI 5	55830	3609	14.07	14.30	1.054	62.9	1.006	0.05	0.134	0.142
	LTE Band 48	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 6	DSI 5	55830	3609	14.07	14.30	1.054	62.9	1.006	-0.18	0.146	0.155
25	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 5	55830	3609	20.25	20.80	1.135	62.9	1.006	-0.02	0.755	**0.862**
	LTE Band 48C	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 5	55830+ 56028	3609+ 3628.8	20.22	20.80	1.143	62.9	1.006	0.08	0.543	0.624
	LTE Band 48	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 14	DSI 5	55830	3609	20.25	20.80	1.135	62.9	1.006	0.13	0.350	0.400
	LTE Band 48	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 14	DSI 5	55830	3609	20.25	20.80	1.135	62.9	1.006	0.02	0.254	0.290
	LTE Band 48	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 14	DSI 5	55830	3609	20.25	20.80	1.135	62.9	1.006	-0.11	0.134	0.153
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 5	55340	3560	20.22	20.80	1.143	62.9	1.006	0.01	0.626	0.720
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 5	56150	3641	20.19	20.80	1.151	62.9	1.006	0.13	0.597	0.691
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 5	56640	3690	20.15	20.80	1.161	62.9	1.006	0.06	0.546	0.638
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 10/15	55830	3609	19.19	19.80	1.151	62.9	1.006	-0.09	0.587	0.680
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 14	DSI 10/15	55830+ 56028	3609+ 3628.8	19.15	19.80	1.161	62.9	1.006	0.08	0.435	0.508
	LTE Band 48	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 14	DSI 5	55830	3609	20.21	20.80	1.146	62.9	1.006	-0.13	0.741	0.854
	LTE Band 48	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 14	DSI 5	55830	3609	20.21	20.80	1.146	62.9	1.006	0.03	0.340	0.392
	LTE Band 48	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 14	DSI 5	55830	3609	20.21	20.80	1.146	62.9	1.006	0.11	0.243	0.280
	LTE Band 48	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 14	DSI 5	55830	3609	20.21	20.80	1.146	62.9	1.006	0.08	0.131	0.151
	LTE Band 48	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 14	DSI 5	55340	3560	20.20	20.80	1.148	62.9	1.006	0.15	0.602	0.695
	LTE Band 48	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 14	DSI 5	56150	3641	20.14	20.80	1.164	62.9	1.006	-0.1	0.585	0.685
	LTE Band 48	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 14	DSI 5	56640	3690	20.09	20.80	1.178	62.9	1.006	-0.11	0.524	0.621
	LTE Band 48	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 14	DSI 5	55830	3609	20.17	20.80	1.156	62.9	1.006	0.04	0.722	0.840
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 12	DSI 5	55830	3609	16.23	16.80	1.140	62.9	1.006	0.13	0.147	0.169
	LTE Band 48	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 12	DSI 5	55830	3609	16.23	16.80	1.140	62.9	1.006	0.03	0.142	0.163
	LTE Band 48	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 12	DSI 5	55830	3609	16.23	16.80	1.140	62.9	1.006	0.02	0.380	0.436
	LTE Band 48	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 12	DSI 5	55830	3609	16.23	16.80	1.140	62.9	1.006	0.16	0.282	0.323
	LTE Band 48	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 12	DSI 5	55340	3560	16.22	16.80	1.143	62.9	1.006	0.03	0.560	0.644
	LTE Band 48	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 12	DSI 5	56150	3641	16.20	16.80	1.148	62.9	1.006	0.01	0.352	0.407
	LTE Band 48	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 12	DSI 5	56640	3690	16.21	16.80	1.146	62.9	1.006	0.18	0.329	0.379
	LTE Band 48	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 12	DSI 5	55830	3609	16.21	16.80	1.146	62.9	1.006	0.14	0.148	0.171
	LTE Band 48	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 12	DSI 5	55830	3609	16.21	16.80	1.146	62.9	1.006	0.05	0.142	0.164

	LTE Band 48	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 12	DSI 5	55830	3609	16.21	16.80	1.146	62.9	1.006	0.02	0.341	0.393
	LTE Band 48	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 12	DSI 5	55830	3609	16.21	16.80	1.146	62.9	1.006	0.07	0.255	0.294
	LTE Band 48	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 12	DSI 5	55830	3609	16.15	16.80	1.161	62.9	1.006	0.03	0.354	0.414
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	55830	3609	24.27	24.80	1.130	62.9	1.006	-0.17	0.241	0.274
	LTE Band 48	20M	QPSK	1	49	-	Right Tilted	0mm	Ant 7	DSI 5/10/15	55830	3609	24.27	24.80	1.130	62.9	1.006	-0.1	0.038	0.043
	LTE Band 48	20M	QPSK	1	49	-	Left Cheek	0mm	Ant 7	DSI 5/10/15	55830	3609	24.27	24.80	1.130	62.9	1.006	0.17	0.117	0.133
	LTE Band 48	20M	QPSK	1	49	-	Left Tilted	0mm	Ant 7	DSI 5/10/15	55830	3609	24.27	24.80	1.130	62.9	1.006	-0.11	0.048	0.055
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	55340	3560	24.19	24.80	1.151	62.9	1.006	-0.13	0.234	0.271
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	56150	3641	24.26	24.80	1.132	62.9	1.006	0.14	0.214	0.244
	LTE Band 48	20M	QPSK	1	49	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	56640	3690	24.22	24.80	1.143	62.9	1.006	-0.05	0.145	0.167
	LTE Band 48	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 7	DSI 5/10/15	55830	3609	23.25	23.80	1.135	62.9	1.006	-0.08	0.218	0.249
	LTE Band 48	20M	QPSK	50	24	-	Right Tilted	0mm	Ant 7	DSI 5/10/15	55830	3609	23.25	23.80	1.135	62.9	1.006	0.02	0.034	0.039
	LTE Band 48	20M	QPSK	50	24	-	Left Cheek	0mm	Ant 7	DSI 5/10/15	55830	3609	23.25	23.80	1.135	62.9	1.006	0.17	0.104	0.119
	LTE Band 48	20M	QPSK	50	24	-	Left Tilted	0mm	Ant 7	DSI 5/10/15	55830	3609	23.25	23.80	1.135	62.9	1.006	0.13	0.044	0.050
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	633332	3499.98	14.49	15.20	1.178	-	-	-0.01	0.948	1.116
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	633332	3499.98	14.49	15.20	1.178	-	-	0.03	0.763	0.899
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	633332	3499.98	14.49	15.20	1.178	-	-	-0.07	0.355	0.418
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	633332	3499.98	14.49	15.20	1.178	-	-	-0.12	0.424	0.499
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 10/15	633332	3499.98	13.88	14.70	1.208	-	-	0.05	0.805	0.972
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	633332	3499.98	14.46	15.20	1.186	-	-	0.07	0.932	1.105
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	633332	3499.98	14.46	15.20	1.186	-	-	-0.15	0.702	0.832
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	633332	3499.98	14.46	15.20	1.186	-	-	-0.06	0.339	0.402
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	633332	3499.98	14.46	15.20	1.186	-	-	0.05	0.358	0.425
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	633332	3499.98	14.36	15.20	1.213	-	-	0.15	0.853	1.035
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	633332	3499.98	14.36	15.20	1.213	-	-	0.17	0.658	0.798
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	656000	3840	14.38	15.20	1.208	-	-	-0.02	0.650	0.785
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	656000	3840	14.38	15.20	1.208	-	-	-0.13	0.556	0.672
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	656000	3840	14.38	15.20	1.208	-	-	0.14	0.257	0.310
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	656000	3840	14.38	15.20	1.208	-	-	0.03	0.262	0.316
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	656000	3840	14.30	15.20	1.230	-	-	0.01	0.511	0.629
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	656000	3840	14.30	15.20	1.230	-	-	0.04	0.407	0.501
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	DSI 5	656000	3840	14.30	15.20	1.230	-	-	0.1	0.204	0.251
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	DSI 5	656000	3840	14.30	15.20	1.230	-	-	0.18	0.217	0.267
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	DSI 5	656000	3840	14.28	15.20	1.236	-	-	0.15	0.507	0.627
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 6	DSI 5	656000	3840	14.28	15.20	1.236	-	-	0.17	0.427	0.528
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	633332	3499.98	17.68	18.20	1.127	-	-	-0.13	1.030	1.161
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 14	DSI 5	633332	3499.98	17.68	18.20	1.127	-	-	-0.14	0.493	0.556
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 14	DSI 5	633332	3499.98	17.68	18.20	1.127	-	-	-0.16	0.163	0.184
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 14	DSI 5	633332	3499.98	17.68	18.20	1.127	-	-	0.07	0.140	0.158
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 14	DSI 10/15	633332	3499.98	16.65	17.20	1.135	-	-	0.12	0.840	0.953
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	633332	3499.98	17.62	18.20	1.143	-	-	0.07	0.919	1.050
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 14	DSI 5	633332	3499.98	17.62	18.20	1.143	-	-	-0.12	0.447	0.511
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 14	DSI 5	633332	3499.98	17.62	18.20	1.143	-	-	0.07	0.151	0.173
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 14	DSI 5	633332	3499.98	17.62	18.20	1.143	-	-	0.01	0.127	0.145
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	633332	3499.98	17.57	18.20	1.156	-	-	0.08	0.925	1.069
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	0.13	0.691	0.817
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	0.15	0.318	0.376
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	-0.08	0.217	0.257
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	-0.08	0.127	0.150
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	-0.09	0.673	0.796
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	0.12	0.327	0.387
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	0.13	0.221	0.261
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 14	DSI 5	656000	3840	17.47	18.20	1.183	-	-	0.05	0.129	0.153
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	656000	3840	17.38	18.20	1.208	-	-	-0.04	0.663	0.801
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	DSI 5	633332	3499.98	15.92	16.70	1.197	-	-	0.06	0.470	0.562
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	DSI 5	633332	3499.98	15.92	16.70	1.197	-	-	-0.14	0.455	0.545

26	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	DSI 5	633332	3499.98	15.92	16.70	1.197	-	-	-0.17	0.991	**1.186**
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	DSI 5	633332	3499.98	15.92	16.70	1.197	-	-	-0.04	0.737	0.882
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	DSI 10/15	633332	3499.98	15.08	15.70	1.153	-	-	-0.09	0.773	0.892
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 5	633332	3499.98	15.85	16.70	1.216	-	-	-0.13	0.414	0.504
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 5	633332	3499.98	15.85	16.70	1.216	-	-	-0.02	0.381	0.463
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 5	633332	3499.98	15.85	16.70	1.216	-	-	-0.11	0.868	1.056
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 5	633332	3499.98	15.85	16.70	1.216	-	-	-0.12	0.693	0.843
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 12	DSI 5	633332	3499.98	15.80	16.70	1.230	-	-	0.1	0.853	1.049
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 12	DSI 5	633332	3499.98	15.80	16.70	1.230	-	-	-0.01	0.684	0.842
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 12	DSI 5	656000	3840	15.51	16.70	1.315	-	-	0.07	0.360	0.473
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 12	DSI 5	656000	3840	15.51	16.70	1.315	-	-	0.17	0.332	0.437
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 12	DSI 5	656000	3840	15.51	16.70	1.315	-	-	0.11	0.829	1.090
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 12	DSI 5	656000	3840	15.51	16.70	1.315	-	-	-0.1	0.649	0.854
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 12	DSI 5	656000	3840	15.44	16.70	1.337	-	-	-0.01	0.360	0.481
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 12	DSI 5	656000	3840	15.44	16.70	1.337	-	-	-0.01	0.313	0.418
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 5	656000	3840	15.44	16.70	1.337	-	-	-0.14	0.818	1.093
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 12	DSI 5	656000	3840	15.44	16.70	1.337	-	-	0.15	0.673	0.900
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 12	DSI 10/15	656000	3840	14.68	15.70	1.265	-	-	0.03	0.656	0.830
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 12	DSI 5	656000	3840	15.37	16.70	1.358	-	-	0.09	0.341	0.463
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 12	DSI 5	656000	3840	15.37	16.70	1.358	-	-	-0.14	0.314	0.427
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 12	DSI 5	656000	3840	15.37	16.70	1.358	-	-	-0.1	0.801	1.088
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 12	DSI 5	656000	3840	15.37	16.70	1.358	-	-	-0.04	0.674	0.916
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	633332	3499.98	23.09	24.20	1.291	-	-	-0.06	0.588	0.759
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	DSI 5	633332	3499.98	23.09	24.20	1.291	-	-	0.17	0.063	0.081
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	DSI 5	633332	3499.98	23.09	24.20	1.291	-	-	-0.1	0.205	0.265
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	DSI 5	633332	3499.98	23.09	24.20	1.291	-	-	0.03	0.104	0.134
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	633332	3499.98	22.90	24.20	1.349	-	-	-0.15	0.650	0.877
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	DSI 5	633332	3499.98	22.90	24.20	1.349	-	-	-0.07	0.087	0.117
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	DSI 5	633332	3499.98	22.90	24.20	1.349	-	-	-0.16	0.253	0.341
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	DSI 5	633332	3499.98	22.90	24.20	1.349	-	-	0.08	0.114	0.154
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	633332	3499.98	22.88	24.20	1.355	-	-	-0.11	0.636	0.862
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	656000	3840	23.38	24.20	1.208	-	-	-0.14	0.358	0.432
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	DSI 5	656000	3840	23.38	24.20	1.208	-	-	0.06	0.043	0.052
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	DSI 5	656000	3840	23.38	24.20	1.208	-	-	0.04	0.077	0.093
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	DSI 5	656000	3840	23.38	24.20	1.208	-	-	-0.09	0.073	0.088
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	656000	3840	23.31	24.20	1.227	-	-	0.18	0.298	0.366
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	DSI 5	656000	3840	23.31	24.20	1.227	-	-	-0.11	0.038	0.047
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	DSI 5	656000	3840	23.31	24.20	1.227	-	-	0.02	0.069	0.085
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	DSI 5	656000	3840	23.31	24.20	1.227	-	-	0.08	0.066	0.081
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 7	DSI 5	656000	3840	23.25	24.20	1.245	-	-	-0.18	0.309	0.385

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN2.4GHz																
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	0.02	0.299	0.490
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	-0.01	0.339	0.555
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	0.07	0.542	0.888
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	0.11	0.508	0.832
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Power Level 11	39	2441	16.80	18.00	1.318	76.87	1.301	-0.06	0.546	0.936
27	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Power Level 11	78	2480	16.10	18.00	1.549	76.87	1.301	-0.05	0.506	**1.020**
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	Power Level 11	39	2441	16.80	18.00	1.318	76.87	1.301	0.12	0.522	0.895
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 12	Power Level 11	78	2480	16.10	18.00	1.549	76.87	1.301	0.03	0.481	0.969
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	Power Level 10	78	2480	13.10	14.50	1.380	76.87	1.301	-0.11	0.088	0.158
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Power Level 10	78	2480	13.10	14.50	1.380	76.87	1.301	0.02	0.146	0.262
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 12	Power Level 9	78	2480	8.20	9.00	1.202	76.87	1.301	0.13	0.031	0.048
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 12	Power Level 9	78	2480	8.20	9.00	1.202	76.87	1.301	-0.09	0.051	0.080
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	-0.06	0.130	0.205
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	-	n/a	n/a
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	0.15	0.083	0.131
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	-	n/a	n/a
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power Level 11	0	2402	17.10	18.00	1.230	76.42	1.309	0.02	0.381	0.614
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power Level 11	78	2480	16.40	18.00	1.445	76.42	1.309	0.02	0.411	0.778
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power Level 10	78	2480	11.00	12.50	1.413	76.42	1.309	0.05	0.109	0.202
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Power Level 9	78	2480	5.40	7.00	1.445	76.42	1.309	0.12	0.045	0.085
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 12	Power Level 1	6	2437	16.55	18.50	1.567	100.00	1.000	-0.08	0.337	0.528
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 12	Power Level 1	6	2437	16.55	18.50	1.567	100.00	1.000	0.13	0.379	0.594
28	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12	Power Level 1	6	2437	16.55	18.50	1.567	100.00	1.000	0.04	0.509	**0.797**
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12	Power Level 1	6	2437	16.55	18.50	1.567	100.00	1.000	-0.05	0.449	0.703
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12	Power Level 1	1	2412	16.00	18.00	1.585	100.00	1.000	0.16	0.457	0.724
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12	Power Level 1	11	2462	16.10	18.00	1.549	100.00	1.000	0.02	0.465	0.720
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12	Power Level 1	1	2412	16.00	18.00	1.585	100.00	1.000	0.12	0.449	0.712
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12	Power Level 1	11	2462	16.10	18.00	1.549	100.00	1.000	-0.07	0.457	0.708
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power Level 1	6	2437	18.17	20.00	1.524	100.00	1.000	-0.12	0.267	0.407
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	Power Level 1	6	2437	18.17	20.00	1.524	100.00	1.000	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Power Level 1	6	2437	18.17	20.00	1.524	100.00	1.000	-0.09	0.137	0.209
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	Power Level 1	6	2437	18.17	20.00	1.524	100.00	1.000	-	n/a	n/a
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power Level 1	1	2412	16.30	18.00	1.479	100.00	1.000	0.07	0.109	0.161
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Power Level 1	11	2462	16.30	18.00	1.479	100.00	1.000	-0.14	0.159	0.235
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 12+7	Power Level 2	6	2437	18.65	20.50	1.533	100.00	1.000	-0.09	0.210	0.322
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 12+7	Power Level 2	6	2437	18.65	20.50	1.533	100.00	1.000	0.07	0.201	0.308
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Power Level 2	6	2437	18.65	20.50	1.533	100.00	1.000	-0.01	0.401	0.615
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 12+7	Power Level 2	6	2437	18.65	20.50	1.533	100.00	1.000	-0.12	0.288	0.441
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Power Level 2	1	2412	18.61	20.50	1.545	100.00	1.000	-0.16	0.405	0.626
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Power Level 2	11	2462	18.64	20.50	1.534	100.00	1.000	0.03	0.410	0.629
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Power Level 3	6	2437	17.67	19.50	1.524	100.00	1.000	0.01	0.340	0.518
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Power Level 4	6	2437	16.17	18.00	1.526	100.00	1.000	0.04	0.240	0.366
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 12+7	Power Level 6	6	2437	12.67	14.50	1.526	100.00	1.000	0.08	0.105	0.160
WLAN5GHz																
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9+15	Power Level 1	50	5250	16.28	18.00	1.487	100.00	1.000	0.02	0.270	0.401
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9+15	Power Level 1	50	5250	16.28	18.00	1.487	100.00	1.000	-0.1	0.259	0.385
29	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9+15	Power Level 1	50	5250	16.28	18.00	1.487	100.00	1.000	0.06	0.575	**0.855**
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9+15	Power Level 1	50	5250	16.28	18.00	1.487	100.00	1.000	0.04	0.522	0.776
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9	Power Level 2	50	5250	12.96	14.50	1.426	100.00	1.000	0.08	0.223	0.318
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9	Power Level 2	50	5250	12.96	14.50	1.426	100.00	1.000	-0.12	0.212	0.302
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 2	50	5250	12.96	14.50	1.426	100.00	1.000	0.05	0.505	0.720

	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9	Power Level 2	50	5250	12.96	14.50	1.426	100.00	1.000	0.06	0.468	0.667
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 3	50	5250	11.96	13.50	1.426	100.00	1.000	-0.16	0.365	0.520
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 4	50	5250	10.52	12.00	1.406	100.00	1.000	-0.05	0.260	0.366
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 5	50	5250	10.08	11.50	1.387	100.00	1.000	0.08	0.222	0.308
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 6	50	5250	7.10	8.50	1.380	100.00	1.000	0.13	0.096	0.132
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 15	Power Level 2/3/4	50	5250	11.69	13.50	1.517	100.00	1.000	-0.09	0.105	0.159
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 15	Power Level 2/3/4	50	5250	11.69	13.50	1.517	100.00	1.000	0.15	0.035	0.053
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 15	Power Level 2/3/4	50	5250	11.69	13.50	1.517	100.00	1.000	-	n/a	n/a
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 15	Power Level 2/3/4	50	5250	11.69	13.50	1.517	100.00	1.000	-	n/a	n/a
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 15	Power Level 5/6	50	5250	11.69	13.50	1.517	100.00	1.000	-0.09	0.105	0.159
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9	Power Level 1	114	5570	14.83	16.50	1.469	100.00	1.000	0.11	0.615	0.903
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9	Power Level 1	114	5570	14.83	16.50	1.469	100.00	1.000	0.05	0.588	0.864
30	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 1	114	5570	14.83	16.50	1.469	100.00	1.000	0.04	0.807	**1.185**
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9	Power Level 1	114	5570	14.83	16.50	1.469	100.00	1.000	-0.11	0.789	1.159
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 2	114	5570	12.38	14.00	1.452	100.00	1.000	-0.06	0.489	0.710
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 3	114	5570	11.40	13.00	1.445	100.00	1.000	0.04	0.381	0.551
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 4	114	5570	9.92	11.50	1.439	100.00	1.000	0.05	0.274	0.394
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 5	114	5570	9.44	11.00	1.432	100.00	1.000	0.02	0.240	0.344
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 6	114	5570	6.46	8.00	1.426	100.00	1.000	0.08	0.109	0.155
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 15	Power Level 1	110	5550	17.37	19.00	1.455	100.00	1.000	0.05	0.095	0.138
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 15	Power Level 1	110	5550	17.37	19.00	1.455	100.00	1.000	-0.11	0.043	0.063
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 15	Power Level 1	110	5550	17.37	19.00	1.455	100.00	1.000	-0.08	0.045	0.065
	WLAN5.5GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 15	Power Level 1	110	5550	17.37	19.00	1.455	100.00	1.000	-	n/a	n/a
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 15	Power Level 1	126	5630	17.21	19.00	1.510	100.00	1.000	0.03	0.082	0.124
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 15	Power Level 1	102	5510	12.72	14.00	1.343	100.00	1.000	0.01	0.028	0.038
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 15	Power Level 1	134	5670	12.31	14.00	1.476	100.00	1.000	0.06	0.024	0.035
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 15	Power Level 2/3/4	110	5550	17.37	19.00	1.455	100.00	1.000	0.05	0.095	0.138
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 15	Power Level 5/6/7	110	5550	14.80	16.00	1.318	100.00	1.000	0.03	0.050	0.066
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9	Power Level 1	155	5775	14.55	16.50	1.567	100.00	1.000	-0.03	0.291	0.456
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9	Power Level 1	155	5775	14.55	16.50	1.567	100.00	1.000	-0.07	0.242	0.379
31	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power Level 1	155	5775	14.55	16.50	1.567	100.00	1.000	0.02	0.709	**1.111**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9	Power Level 1	155	5775	14.55	16.50	1.567	100.00	1.000	0.03	0.701	1.098
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power Level 2	155	5775	12.60	14.50	1.549	100.00	1.000	0.13	0.401	0.621
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power Level 3	155	5775	11.58	13.50	1.556	100.00	1.000	0.02	0.334	0.520
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power Level 4	155	5775	9.64	11.50	1.535	100.00	1.000	0.01	0.196	0.301
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power Level 5	155	5775	9.64	11.50	1.535	100.00	1.000	0.01	0.196	0.301
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9	Power Level 6	155	5775	6.67	8.50	1.524	100.00	1.000	-0.01	0.093	0.142
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 15	Power Level 1	149	5745	18.52	20.00	1.406	99.32	1.007	0.05	0.231	0.327
	WLAN5.8GHz	802.11a 6Mbps	Right Tilted	0mm	Ant 15	Power Level 1	149	5745	18.52	20.00	1.406	99.32	1.007	-0.01	0.169	0.239
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 15	Power Level 1	149	5745	18.52	20.00	1.406	99.32	1.007	-0.07	0.171	0.242
	WLAN5.8GHz	802.11a 6Mbps	Left Tilted	0mm	Ant 15	Power Level 1	149	5745	18.52	20.00	1.406	99.32	1.007	0.14	0.068	0.096
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 15	Power Level 1	157	5785	18.50	20.00	1.411	99.32	1.007	0.03	0.219	0.311
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 15	Power Level 1	165	5825	18.06	20.00	1.561	99.32	1.007	0.08	0.201	0.316
	WLAN5.8GHz	802.11a 6Mbps	Right Cheek	0mm	Ant 15	Power Level 2/3/4	149	5745	18.52	20.00	1.406	99.32	1.007	0.05	0.231	0.327
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 15	Power Level 5/6/7	155	5775	15.13	17.00	1.538	100.00	1.000	0.03	0.101	0.155

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 71	20M	QPSK	1	49	-	Front	10mm	Ant 1	DSI 9/14	133297	680.5	23.65	24.10	1.109	-	-	-0.05	0.166	0.184
	LTE Band 71	20M	QPSK	1	49	-	Back	10mm	Ant 1	DSI 9/14	133297	680.5	23.65	24.10	1.109	-	-	0.15	0.193	0.214
	LTE Band 71	20M	QPSK	1	49	-	Left Side	10mm	Ant 1	DSI 9/14	133297	680.5	23.65	24.10	1.109	-	-	0.09	0.337	0.374
	LTE Band 71	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 1	DSI 9/14	133297	680.5	23.65	24.10	1.109	-	-	0.04	0.129	0.143
	LTE Band 71	20M	QPSK	50	24	-	Front	10mm	Ant 1	DSI 9/14	133297	680.5	23.13	23.60	1.114	-	-	0.03	0.129	0.144
	LTE Band 71	20M	QPSK	50	24	-	Back	10mm	Ant 1	DSI 9/14	133297	680.5	23.13	23.60	1.114	-	-	-0.18	0.161	0.179
	LTE Band 71	20M	QPSK	50	24	-	Left Side	10mm	Ant 1	DSI 9/14	133297	680.5	23.13	23.60	1.114	-	-	-0.08	0.300	0.334
	LTE Band 71	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 1	DSI 9/14	133297	680.5	23.13	23.60	1.114	-	-	-0.09	0.115	0.128
	LTE Band 71	20M	QPSK	1	49	-	Front	10mm	Ant 0	DSI 9/14	133297	680.5	23.18	23.50	1.076	-	-	-0.04	0.316	0.340
	LTE Band 71	20M	QPSK	1	49	-	Back	10mm	Ant 0	DSI 9/14	133297	680.5	23.18	23.50	1.076	-	-	0.09	0.388	0.418
32	LTE Band 71	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	133297	680.5	23.18	23.50	1.076	-	-	0.04	0.596	**0.642**
	LTE Band 71	20M	QPSK	50	24	-	Front	10mm	Ant 0	DSI 9/14	133297	680.5	22.33	23.00	1.167	-	-	0.15	0.277	0.323
	LTE Band 71	20M	QPSK	50	24	-	Back	10mm	Ant 0	DSI 9/14	133297	680.5	22.33	23.00	1.167	-	-	-0.13	0.344	0.401
	LTE Band 71	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	133297	680.5	22.33	23.00	1.167	-	-	0.04	0.514	0.600
	LTE Band 12	10M	QPSK	1	25	-	Front	10mm	Ant 1	DSI 9/14	23095	707.5	21.86	22.80	1.242	-	-	-0.18	0.109	0.135
	LTE Band 12	10M	QPSK	1	25	-	Back	10mm	Ant 1	DSI 9/14	23095	707.5	21.86	22.80	1.242	-	-	-0.08	0.135	0.168
	LTE Band 12	10M	QPSK	1	25	-	Left Side	10mm	Ant 1	DSI 9/14	23095	707.5	21.86	22.80	1.242	-	-	0.01	0.191	0.237
	LTE Band 12	10M	QPSK	1	25	-	Bottom Side	10mm	Ant 1	DSI 9/14	23095	707.5	21.86	22.80	1.242	-	-	0.11	0.090	0.112
	LTE Band 12	10M	QPSK	25	12	-	Front	10mm	Ant 1	DSI 9/14	23095	707.5	21.81	22.80	1.256	-	-	-0.18	0.106	0.133
	LTE Band 12	10M	QPSK	25	12	-	Back	10mm	Ant 1	DSI 9/14	23095	707.5	21.81	22.80	1.256	-	-	-0.04	0.140	0.176
	LTE Band 12	10M	QPSK	25	12	-	Left Side	10mm	Ant 1	DSI 9/14	23095	707.5	21.81	22.80	1.256	-	-	-0.03	0.183	0.230
	LTE Band 12	10M	QPSK	25	12	-	Bottom Side	10mm	Ant 1	DSI 9/14	23095	707.5	21.81	22.80	1.256	-	-	0.18	0.089	0.112
	LTE Band 12	10M	QPSK	1	25	-	Front	10mm	Ant 0	DSI 9/14	23095	707.5	22.10	22.50	1.096	-	-	0.13	0.288	0.316
	LTE Band 12	10M	QPSK	1	25	-	Back	10mm	Ant 0	DSI 9/14	23095	707.5	22.10	22.50	1.096	-	-	-0.11	0.343	0.376
33	LTE Band 12	10M	QPSK	1	25	-	Left Side	10mm	Ant 0	DSI 9/14	23095	707.5	22.10	22.50	1.096	-	-	-0.04	0.517	**0.567**
	LTE Band 12	10M	QPSK	25	12	-	Front	10mm	Ant 0	DSI 9/14	23095	707.5	22.06	22.50	1.107	-	-	0.14	0.297	0.329
	LTE Band 12	10M	QPSK	25	12	-	Back	10mm	Ant 0	DSI 9/14	23095	707.5	22.06	22.50	1.107	-	-	-0.01	0.353	0.391
	LTE Band 12	10M	QPSK	25	12	-	Left Side	10mm	Ant 0	DSI 9/14	23095	707.5	22.06	22.50	1.107	-	-	0.15	0.504	0.558
	LTE Band 13	10M	QPSK	1	25	-	Front	10mm	Ant 1	DSI 9/14	23230	782	23.05	23.60	1.135	-	-	-0.14	0.118	0.134
	LTE Band 13	10M	QPSK	1	25	-	Back	10mm	Ant 1	DSI 9/14	23230	782	23.05	23.60	1.135	-	-	0.01	0.169	0.192
	LTE Band 13	10M	QPSK	1	25	-	Left Side	10mm	Ant 1	DSI 9/14	23230	782	23.05	23.60	1.135	-	-	-0.14	0.178	0.202
	LTE Band 13	10M	QPSK	1	25	-	Bottom Side	10mm	Ant 1	DSI 9/14	23230	782	23.05	23.60	1.135	-	-	-0.09	0.116	0.132
	LTE Band 13	10M	QPSK	25	12	-	Front	10mm	Ant 1	DSI 9/14	23230	782	22.79	23.60	1.205	-	-	-0.07	0.120	0.145
	LTE Band 13	10M	QPSK	25	12	-	Back	10mm	Ant 1	DSI 9/14	23230	782	22.79	23.60	1.205	-	-	0.04	0.151	0.182
	LTE Band 13	10M	QPSK	25	12	-	Left Side	10mm	Ant 1	DSI 9/14	23230	782	22.79	23.60	1.205	-	-	0.05	0.163	0.196
	LTE Band 13	10M	QPSK	25	12	-	Bottom Side	10mm	Ant 1	DSI 9/14	23230	782	22.79	23.60	1.205	-	-	-0.13	0.115	0.139
	LTE Band 13	10M	QPSK	1	25	-	Front	10mm	Ant 0	DSI 9/14	23230	782	23.17	23.80	1.156	-	-	-0.15	0.310	0.358
	LTE Band 13	10M	QPSK	1	25	-	Back	10mm	Ant 0	DSI 9/14	23230	782	23.17	23.80	1.156	-	-	-0.06	0.374	0.432
34	LTE Band 13	10M	QPSK	1	25	-	Left Side	10mm	Ant 0	DSI 9/14	23230	782	23.17	23.80	1.156	-	-	-0.13	0.527	**0.609**
	LTE Band 13	10M	QPSK	25	12	-	Front	10mm	Ant 0	DSI 9/14	23230	782	22.26	22.80	1.132	-	-	-0.14	0.245	0.277
	LTE Band 13	10M	QPSK	25	12	-	Back	10mm	Ant 0	DSI 9/14	23230	782	22.26	22.80	1.132	-	-	0.03	0.301	0.341
	LTE Band 13	10M	QPSK	25	12	-	Left Side	10mm	Ant 0	DSI 9/14	23230	782	22.26	22.80	1.132	-	-	0.17	0.415	0.470
	FR1 n71	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI 9/14	136100	680.5	23.11	24.00	1.227	-	-	-0.15	0.121	0.149
	FR1 n71	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI 9/14	136100	680.5	23.11	24.00	1.227	-	-	0.06	0.162	0.199
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	DSI 9/14	136100	680.5	23.11	24.00	1.227	-	-	-0.07	0.287	0.352
	FR1 n71	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	DSI 9/14	136100	680.5	23.11	24.00	1.227	-	-	0.15	0.104	0.128
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	DSI 9/14	136100	680.5	23.02	24.00	1.253	-	-	0.09	0.120	0.150
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	DSI 9/14	136100	680.5	23.02	24.00	1.253	-	-	0.12	0.156	0.195
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 1	DSI 9/14	136100	680.5	23.02	24.00	1.253	-	-	-0.16	0.300	0.376
	FR1 n71	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 1	DSI 9/14	136100	680.5	23.02	24.00	1.253	-	-	0.09	0.107	0.134

	FR1 n71	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9/14	136100	680.5	23.56	24.40	1.213	-	-	-0.08	0.419	0.508
	FR1 n71	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9/14	136100	680.5	23.56	24.40	1.213	-	-	-0.01	0.495	0.601
35	FR1 n71	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	136100	680.5	23.56	24.40	1.213	-	-	0.06	0.781	**0.948**
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	DSI 9/14	136100	680.5	23.51	24.40	1.227	-	-	-0.16	0.339	0.416
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	DSI 9/14	136100	680.5	23.51	24.40	1.227	-	-	0.04	0.417	0.512
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	136100	680.5	23.51	24.40	1.227	-	-	-0.06	0.632	0.776
	FR1 n71	20M	QPSK	100	0	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	136100	680.5	22.67	23.40	1.183	-	-	0.08	0.628	0.743
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI 9/14	141500	707.5	22.55	23.20	1.161	-	-	0.18	0.100	0.116
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI 9/14	141500	707.5	22.55	23.20	1.161	-	-	-0.08	0.125	0.145
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	DSI 9/14	141500	707.5	22.55	23.20	1.161	-	-	-0.07	0.198	0.230
	FR1 n12	15M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	DSI 9/14	141500	707.5	22.55	23.20	1.161	-	-	0.04	0.100	0.116
	FR1 n12	15M	QPSK	36	0	DFT-15	Front	10mm	Ant 1	DSI 9/14	141500	707.5	22.49	23.20	1.178	-	-	-0.09	0.094	0.111
	FR1 n12	15M	QPSK	36	0	DFT-15	Back	10mm	Ant 1	DSI 9/14	141500	707.5	22.49	23.20	1.178	-	-	0.03	0.119	0.140
	FR1 n12	15M	QPSK	36	0	DFT-15	Left Side	10mm	Ant 1	DSI 9/14	141500	707.5	22.49	23.20	1.178	-	-	-0.18	0.198	0.233
	FR1 n12	15M	QPSK	36	0	DFT-15	Bottom Side	10mm	Ant 1	DSI 9/14	141500	707.5	22.49	23.20	1.178	-	-	-0.12	0.103	0.121
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9/14	141500	707.5	21.75	22.60	1.216	-	-	-0.17	0.205	0.249
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9/14	141500	707.5	21.75	22.60	1.216	-	-	-0.07	0.242	0.294
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	141500	707.5	21.75	22.60	1.216	-	-	-0.08	0.383	0.466
	FR1 n12	15M	QPSK	36	0	DFT-15	Front	10mm	Ant 0	DSI 9/14	141500	707.5	21.69	22.60	1.233	-	-	0.02	0.206	0.254
	FR1 n12	15M	QPSK	36	0	DFT-15	Back	10mm	Ant 0	DSI 9/14	141500	707.5	21.69	22.60	1.233	-	-	0.12	0.245	0.302
36	FR1 n12	15M	QPSK	36	0	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	141500	707.5	21.69	22.60	1.233	-	-	0.18	0.404	**0.498**
	835MHz																				
	GSM850	-	-	-	-	GPRS(1 Tx slots)	Front	10mm	Ant 1	DSI 9/14	189	836.4	32.39	33.00	1.151	-	-	0.02	0.165	0.190
	GSM850	-	-	-	-	GPRS(1 Tx slots)	Back	10mm	Ant 1	DSI 9/14	189	836.4	32.39	33.00	1.151	-	-	0.02	0.242	0.278
	GSM850	-	-	-	-	GPRS(1 Tx slots)	Left Side	10mm	Ant 1	DSI 9/14	189	836.4	32.39	33.00	1.151	-	-	-0.15	0.211	0.243
	GSM850	-	-	-	-	GPRS(1 Tx slots)	Bottom Side	10mm	Ant 1	DSI 9/14	189	836.4	32.39	33.00	1.151	-	-	0.08	0.177	0.204
	GSM850	-	-	-	-	GPRS(1 Tx slots)	Back	10mm	Ant 1	DSI 9/14	128	824.2	32.35	33.00	1.161	-	-	-0.04	0.254	0.295
37	GSM850	-	-	-	-	GPRS(1 Tx slots)	Back	10mm	Ant 1	DSI 9/14	251	848.8	32.29	33.00	1.178	-	-	-0.1	0.315	**0.371**
	GSM850	-	-	-	-	DTM Multi-slot class 11	Back	10mm	Ant 1	DSI 9/14	251	848.8	23.35	23.94	1.146	-	-	0.04	0.304	0.348
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	DSI 9/14	4182	836.4	24.58	24.80	1.052	-	-	-0.05	0.246	0.259
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 9/14	4182	836.4	24.58	24.80	1.052	-	-	0.02	0.371	0.390
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 1	DSI 9/14	4182	836.4	24.58	24.80	1.052	-	-	-0.09	0.226	0.238
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 1	DSI 9/14	4182	836.4	24.58	24.80	1.052	-	-	0	0.271	0.285
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 9/14	4132	826.4	24.54	24.80	1.062	-	-	0.15	0.322	0.342
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	DSI 9/14	4233	846.6	24.45	24.80	1.084	-	-	-0.1	0.382	0.414
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 9/14	4182	836.4	23.53	23.80	1.064	-	-	0.05	0.528	0.562
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 9/14	4182	836.4	23.53	23.80	1.064	-	-	0.16	0.661	0.703
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	4182	836.4	23.53	23.80	1.064	-	-	0.06	0.805	0.857
38	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	4132	826.4	23.44	23.80	1.086	-	-	-0.12	0.875	**0.951**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	4233	846.6	23.41	23.80	1.094	-	-	-0.18	0.578	0.632
	LTE Band 26	15M	QPSK	1	37	-	Front	10mm	Ant 1	DSI 9/14	26865	831.5	23.01	23.80	1.199	-	-	-0.1	0.216	0.259
	LTE Band 26	15M	QPSK	1	37	-	Back	10mm	Ant 1	DSI 9/14	26865	831.5	23.01	23.80	1.199	-	-	0.13	0.324	0.389
	LTE Band 26	15M	QPSK	1	37	-	Left Side	10mm	Ant 1	DSI 9/14	26865	831.5	23.01	23.80	1.199	-	-	-0.07	0.196	0.235
	LTE Band 26	15M	QPSK	1	37	-	Bottom Side	10mm	Ant 1	DSI 9/14	26865	831.5	23.01	23.80	1.199	-	-	0.09	0.250	0.300
	LTE Band 26	15M	QPSK	1	37	-	Back	10mm	Ant 1	DSI 9/14	26765	821.5	22.82	23.80	1.253	-	-	-0.16	0.264	0.331
	LTE Band 26	15M	QPSK	1	37	-	Back	10mm	Ant 1	DSI 9/14	26965	841.5	22.95	23.80	1.216	-	-	0.06	0.313	0.381
	LTE Band 26	15M	QPSK	36	20	-	Front	10mm	Ant 1	DSI 9/14	26865	831.5	22.93	23.80	1.222	-	-	-0.11	0.210	0.257
	LTE Band 26	15M	QPSK	36	20	-	Back	10mm	Ant 1	DSI 9/14	26865	831.5	22.93	23.80	1.222	-	-	-0.1	0.315	0.385
	LTE Band 26	15M	QPSK	36	20	-	Left Side	10mm	Ant 1	DSI 9/14	26865	831.5	22.93	23.80	1.222	-	-	0.15	0.190	0.232
	LTE Band 26	15M	QPSK	36	20	-	Bottom Side	10mm	Ant 1	DSI 9/14	26865	831.5	22.93	23.80	1.222	-	-	-0.1	0.253	0.309
	LTE Band 26	15M	QPSK	1	37	-	Front	10mm	Ant 0	DSI 9/14	26865	831.5	23.12	23.50	1.091	-	-	-0.01	0.426	0.465
	LTE Band 26	15M	QPSK	1	37	-	Back	10mm	Ant 0	DSI 9/14	26865	831.5	23.12	23.50	1.091	-	-	-0.17	0.557	0.608
39	LTE Band 26	15M	QPSK	1	37	-	Left Side	10mm	Ant 0	DSI 9/14	26865	831.5	23.12	23.50	1.091	-	-	-0.04	0.754	**0.823**
	LTE Band 26	15M	QPSK	1	37	-	Left Side	10mm	Ant 0	DSI 9/14	26765	821.5	23.08	23.50	1.102	-	-	-0.06	0.740	0.815

	LTE Band 26	15M	QPSK	1	37	-	Left Side	10mm	Ant 0	DSI 9/14	26965	841.5	23.05	23.50	1.109	-	-	0.1	0.600	0.666
	LTE Band 26	15M	QPSK	36	20	-	Front	10mm	Ant 0	DSI 9/14	26865	831.5	22.42	23.00	1.143	-	-	0.15	0.393	0.449
	LTE Band 26	15M	QPSK	36	20	-	Back	10mm	Ant 0	DSI 9/14	26865	831.5	22.42	23.00	1.143	-	-	0.03	0.504	0.576
	LTE Band 26	15M	QPSK	36	20	-	Left Side	10mm	Ant 0	DSI 9/14	26865	831.5	22.42	23.00	1.143	-	-	0.06	0.700	0.800
	LTE Band 26	15M	QPSK	36	20	-	Left Side	10mm	Ant 0	DSI 9/14	26765	821.5	22.35	23.00	1.161	-	-	0.05	0.683	0.793
	LTE Band 26	15M	QPSK	36	20	-	Left Side	10mm	Ant 0	DSI 9/14	26965	841.5	22.40	23.00	1.148	-	-	0.07	0.550	0.631
	LTE Band 26	15M	QPSK	75	0	-	Left Side	10mm	Ant 0	DSI 9/14	26865	831.5	22.40	23.00	1.148	-	-	0.06	0.686	0.788
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	DSI 9/14	167300	836.5	23.10	23.70	1.148	-	-	-0.07	0.232	0.266
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	DSI 9/14	167300	836.5	23.10	23.70	1.148	-	-	-0.17	0.307	0.352
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 1	DSI 9/14	167300	836.5	23.10	23.70	1.148	-	-	0.13	0.225	0.258
	FR1 n5	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	DSI 9/14	167300	836.5	23.10	23.70	1.148	-	-	-0.13	0.239	0.274
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	DSI 9/14	167300	836.5	23.05	23.70	1.161	-	-	0.02	0.227	0.264
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	DSI 9/14	167300	836.5	23.05	23.70	1.161	-	-	0.03	0.311	0.361
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 1	DSI 9/14	167300	836.5	23.05	23.70	1.161	-	-	0.06	0.217	0.252
	FR1 n5	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 1	DSI 9/14	167300	836.5	23.05	23.70	1.161	-	-	-0.16	0.252	0.293
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9/14	167300	836.5	21.83	22.60	1.194	-	-	0.09	0.290	0.346
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9/14	167300	836.5	21.83	22.60	1.194	-	-	-0.15	0.362	0.432
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	167300	836.5	21.83	22.60	1.194	-	-	-0.04	0.512	0.611
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	DSI 9/14	167300	836.5	21.75	22.60	1.216	-	-	0.08	0.296	0.360
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	DSI 9/14	167300	836.5	21.75	22.60	1.216	-	-	-0.1	0.354	0.431
40	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	167300	836.5	21.75	22.60	1.216	-	-	0.02	0.531	**0.646**
	1750MHz																			
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 9/14	1413	1732.6	18.96	19.40	1.107	-	-	0.09	0.088	0.097
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 9/14	1413	1732.6	18.96	19.40	1.107	-	-	0.08	0.186	0.206
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	1413	1732.6	18.96	19.40	1.107	-	-	0.18	0.261	0.289
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	1312	1712.4	18.87	19.40	1.130	-	-	0.11	0.230	0.260
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	1513	1752.6	18.91	19.40	1.119	-	-	0.03	0.328	0.367
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	DSI 9/14	1413	1732.6	17.75	18.30	1.135	-	-	0.12	0.190	0.216
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	DSI 9/14	1413	1732.6	17.75	18.30	1.135	-	-	0.11	0.193	0.219
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 5	DSI 9/14	1413	1732.6	17.75	18.30	1.135	-	-	-0.06	0.059	0.067
41	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	DSI 9/14	1413	1732.6	17.75	18.30	1.135	-	-	-0.03	0.399	**0.453**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	DSI 9/14	1312	1712.4	17.68	18.30	1.153	-	-	0.1	0.381	0.439
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	DSI 9/14	1513	1752.6	17.71	18.30	1.146	-	-	0.18	0.384	0.440
	LTE Band 66	20M	QPSK	1	49	-	Front	10mm	Ant 0	DSI 9/14	132322	1745	18.25	18.90	1.161	-	-	-0.06	0.103	0.120
	LTE Band 66	20M	QPSK	1	49	-	Back	10mm	Ant 0	DSI 9/14	132322	1745	18.25	18.90	1.161	-	-	-0.18	0.275	0.319
	LTE Band 66	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	132322	1745	18.25	18.90	1.161	-	-	0.15	0.351	0.408
	LTE Band 66	20M	QPSK	50	24	-	Front	10mm	Ant 0	DSI 9/14	132322	1745	18.23	18.90	1.167	-	-	-0.05	0.106	0.124
	LTE Band 66	20M	QPSK	50	24	-	Back	10mm	Ant 0	DSI 9/14	132322	1745	18.23	18.90	1.167	-	-	0.01	0.276	0.322
	LTE Band 66	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	132322	1745	18.23	18.90	1.167	-	-	-0.12	0.354	0.413
	LTE Band 66	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	132072	1720	18.21	18.90	1.172	-	-	-0.02	0.296	0.347
	LTE Band 66	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	132572	1770	18.18	18.90	1.180	-	-	0.02	0.381	0.450
	LTE Band 66C	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	132572+ 132374	1770+ 1750.2	18.16	18.90	1.186	-	-	0.02	0.359	0.426
	LTE Band 66	20M	QPSK	1	49	-	Front	10mm	Ant 5	DSI 9/14	132322	1745	18.10	18.80	1.175	-	-	0	0.171	0.201
	LTE Band 66	20M	QPSK	1	49	-	Back	10mm	Ant 5	DSI 9/14	132322	1745	18.10	18.80	1.175	-	-	-0.02	0.182	0.214
	LTE Band 66	20M	QPSK	1	49	-	Right Side	10mm	Ant 5	DSI 9/14	132322	1745	18.10	18.80	1.175	-	-	0.09	0.058	0.068
	LTE Band 66	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	132322	1745	18.10	18.80	1.175	-	-	0.1	0.416	0.489
	LTE Band 66	20M	QPSK	50	24	-	Front	10mm	Ant 5	DSI 9/14	132322	1745	17.99	18.80	1.205	-	-	-0.18	0.169	0.204
	LTE Band 66	20M	QPSK	50	24	-	Back	10mm	Ant 5	DSI 9/14	132322	1745	17.99	18.80	1.205	-	-	0.02	0.188	0.227
	LTE Band 66	20M	QPSK	50	24	-	Right Side	10mm	Ant 5	DSI 9/14	132322	1745	17.99	18.80	1.205	-	-	0.12	0.063	0.076
	LTE Band 66	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	132322	1745	17.99	18.80	1.205	-	-	0.12	0.429	0.517
	LTE Band 66	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	132072	1720	17.77	18.80	1.268	-	-	0.06	0.411	0.521
	LTE Band 66	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	132572	1770	17.92	18.80	1.225	-	-	-0.04	0.431	0.528
	LTE Band 66C	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	132572+ 132374	1770+ 1750.2	17.92	18.80	1.225	-	-	0.02	0.371	0.454
	LTE Band 66	20M	QPSK	1	49	-	Front	10mm	Ant 6	DSI 9/14	132322	1745	17.55	18.30	1.189	-	-	0.15	0.151	0.179
	LTE Band 66	20M	QPSK	1	49	-	Back	10mm	Ant 6	DSI 9/14	132322	1745	17.55	18.30	1.189	-	-	0.12	0.229	0.272

	LTE Band 66	20M	QPSK	1	49	-	Left Side	10mm	Ant 6	DSI 9/14	132322	1745	17.55	18.30	1.189	-	-	-0.13	0.076	0.090
	LTE Band 66	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	132322	1745	17.55	18.30	1.189	-	-	-0.16	0.420	0.499
	LTE Band 66	20M	QPSK	50	24	-	Front	10mm	Ant 6	DSI 9/14	132322	1745	17.50	18.30	1.202	-	-	-0.08	0.148	0.178
	LTE Band 66	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	132322	1745	17.50	18.30	1.202	-	-	0.13	0.235	0.283
	LTE Band 66	20M	QPSK	50	24	-	Left Side	10mm	Ant 6	DSI 9/14	132322	1745	17.50	18.30	1.202	-	-	0.14	0.079	0.095
	LTE Band 66	20M	QPSK	50	24	-	Top Side	10mm	Ant 6	DSI 9/14	132322	1745	17.50	18.30	1.202	-	-	-0.11	0.421	0.506
42	LTE Band 66	20M	QPSK	50	24	-	Top Side	10mm	Ant 6	DSI 9/14	132072	1720	17.37	18.30	1.239	-	-	-0.1	0.465	**0.576**
	LTE Band 66	20M	QPSK	50	24	-	Top Side	10mm	Ant 6	DSI 9/14	132572	1770	17.32	18.30	1.253	-	-	0.11	0.404	0.506
	LTE Band 66	20M	QPSK	1	49	-	Front	10mm	Ant 7	DSI 9/14	132322	1745	19.72	20.10	1.091	-	-	0.01	0.176	0.192
	LTE Band 66	20M	QPSK	1	49	-	Back	10mm	Ant 7	DSI 9/14	132322	1745	19.72	20.10	1.091	-	-	-0.17	0.128	0.140
	LTE Band 66	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	132322	1745	19.72	20.10	1.091	-	-	0.12	0.395	0.431
	LTE Band 66	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	132072	1720	19.63	20.10	1.114	-	-	-0.03	0.440	0.490
	LTE Band 66	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	132572	1770	19.55	20.10	1.135	-	-	-0.14	0.271	0.308
	LTE Band 66	20M	QPSK	50	24	-	Front	10mm	Ant 7	DSI 9/14	132322	1745	19.65	20.10	1.109	-	-	0.07	0.171	0.190
	LTE Band 66	20M	QPSK	50	24	-	Back	10mm	Ant 7	DSI 9/14	132322	1745	19.65	20.10	1.109	-	-	-0.11	0.126	0.140
	LTE Band 66	20M	QPSK	50	24	-	Right Side	10mm	Ant 7	DSI 9/14	132322	1745	19.65	20.10	1.109	-	-	0.09	0.386	0.428
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9/14	349000	1745	18.23	18.80	1.140	-	-	-0.03	0.088	0.100
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9/14	349000	1745	18.23	18.80	1.140	-	-	0.18	0.158	0.180
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	349000	1745	18.23	18.80	1.140	-	-	0.11	0.189	0.216
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 0	DSI 9/14	349000	1745	18.13	18.80	1.167	-	-	-0.09	0.095	0.111
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 0	DSI 9/14	349000	1745	18.13	18.80	1.167	-	-	0.14	0.182	0.212
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	349000	1745	18.13	18.80	1.167	-	-	-0.02	0.229	0.267
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	DSI 9/14	349000	1745	17.52	18.20	1.169	-	-	-0.02	0.155	0.181
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	DSI 9/14	349000	1745	17.52	18.20	1.169	-	-	0.13	0.172	0.201
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	349000	1745	17.52	18.20	1.169	-	-	0.09	0.043	0.050
	FR1 n66	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	349000	1745	17.52	18.20	1.169	-	-	0.02	0.335	0.392
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	DSI 9/14	349000	1745	17.45	18.20	1.189	-	-	0.03	0.149	0.177
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	DSI 9/14	349000	1745	17.45	18.20	1.189	-	-	-0.04	0.165	0.196
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	349000	1745	17.45	18.20	1.189	-	-	0.03	0.047	0.056
	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	349000	1745	17.45	18.20	1.189	-	-	0.16	0.334	0.397
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	DSI 9/14	349000	1745	17.49	18.70	1.321	-	-	-0.01	0.194	0.256
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	DSI 9/14	349000	1745	17.49	18.70	1.321	-	-	0.05	0.286	0.378
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	DSI 9/14	349000	1745	17.49	18.70	1.321	-	-	-0.13	0.133	0.176
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	DSI 9/14	349000	1745	17.49	18.70	1.321	-	-	0.08	0.579	0.765
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 6	DSI 9/14	349000	1745	17.42	18.70	1.343	-	-	-0.01	0.170	0.228
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 6	DSI 9/14	349000	1745	17.42	18.70	1.343	-	-	0.09	0.269	0.361
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 6	DSI 9/14	349000	1745	17.42	18.70	1.343	-	-	-0.03	0.128	0.172
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 6	DSI 9/14	349000	1745	17.42	18.70	1.343	-	-	0.13	0.551	0.740
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 7	DSI 9/14	349000	1745	21.20	22.00	1.202	-	-	0.01	0.332	0.399
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 7	DSI 9/14	349000	1745	21.20	22.00	1.202	-	-	-0.1	0.247	0.297
43	FR1 n66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 7	DSI 9/14	349000	1745	21.20	22.00	1.202	-	-	-0.04	0.774	**0.931**
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 7	DSI 9/14	349000	1745	21.12	22.00	1.225	-	-	-0.07	0.288	0.353
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 7	DSI 9/14	349000	1745	21.12	22.00	1.225	-	-	-0.09	0.223	0.273
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 7	DSI 9/14	349000	1745	21.12	22.00	1.225	-	-	0.11	0.691	0.846
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Side	10mm	Ant 7	DSI 9/14	349000	1745	21.11	22.00	1.227	-	-	0.03	0.683	0.838
1900MHz																				
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Front	10mm	Ant 5	DSI 9/14	661	1880	29.25	30.00	1.189	-	-	0.03	0.197	0.234
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Back	10mm	Ant 5	DSI 9/14	661	1880	29.25	30.00	1.189	-	-	-0.01	0.241	0.286
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Right Side	10mm	Ant 5	DSI 9/14	661	1880	29.25	30.00	1.189	-	-	0.03	0.079	0.094
44	GSM1900	-	-	-	-	GPRS(1Tx slots)	Bottom Side	10mm	Ant 5	DSI 9/14	661	1880	29.25	30.00	1.189	-	-	0.06	0.518	**0.616**
	GSM1900	-	-	-	-	DTM Multi-slot class 11	Bottom Side	10mm	Ant 5	DSI 9/14	661	1880	20.05	20.94	1.227	-	-	0.04	0.483	0.593
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Bottom Side	10mm	Ant 5	DSI 9/14	512	1850.2	29.12	30.00	1.225	-	-	0.02	0.494	0.605
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Bottom Side	10mm	Ant 5	DSI 9/14	810	1909.8	29.16	30.00	1.213	-	-	-0.09	0.481	0.584
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	DSI 9/14	9400	1880	20.72	20.90	1.042	-	-	0.08	0.140	0.146

	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	DSI 9/14	9400	1880	20.72	20.90	1.042	-	-	-0.18	0.244	0.254
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	9400	1880	20.72	20.90	1.042	-	-	0.07	0.466	0.486
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	9262	1852.4	20.62	20.90	1.067	-	-	0.02	0.455	0.485
45	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	DSI 9/14	9538	1907.6	20.62	20.90	1.067	-	-	-0.01	0.507	**0.541**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	DSI 9/14	9400	1880	17.70	18.30	1.148	-	-	0.13	0.156	0.179
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	DSI 9/14	9400	1880	17.70	18.30	1.148	-	-	-0.1	0.191	0.219
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 5	DSI 9/14	9400	1880	17.70	18.30	1.148	-	-	0.1	0.067	0.077
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	DSI 9/14	9400	1880	17.70	18.30	1.148	-	-	-0.16	0.391	0.449
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	DSI 9/14	9262	1852.4	17.64	18.30	1.164	-	-	0.05	0.397	0.462
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	DSI 9/14	9538	1907.6	17.56	18.30	1.186	-	-	-0.02	0.382	0.453
	LTE Band 25	20M	QPSK	1	49	-	Front	10mm	Ant 0	DSI 9/14	26340	1880	19.83	20.40	1.140	-	-	-0.12	0.197	0.225
	LTE Band 25	20M	QPSK	1	49	-	Back	10mm	Ant 0	DSI 9/14	26340	1880	19.83	20.40	1.140	-	-	-0.12	0.410	0.468
	LTE Band 25	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	26340	1880	19.83	20.40	1.140	-	-	0.03	0.615	0.701
	LTE Band 25	20M	QPSK	50	24	-	Front	10mm	Ant 0	DSI 9/14	26340	1880	19.80	20.40	1.148	-	-	0.09	0.195	0.224
	LTE Band 25	20M	QPSK	50	24	-	Back	10mm	Ant 0	DSI 9/14	26340	1880	19.80	20.40	1.148	-	-	0.03	0.417	0.479
	LTE Band 25	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	26340	1880	19.80	20.40	1.148	-	-	0.01	0.633	0.727
46	LTE Band 25	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	26140	1860	19.62	20.40	1.197	-	-	0.03	0.723	**0.865**
	LTE Band 25	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	26590	1905	19.70	20.40	1.175	-	-	-0.14	0.647	0.760
	LTE Band 25	20M	QPSK	100	0	-	Left Side	10mm	Ant 0	DSI 9/14	26340	1880	19.64	20.40	1.191	-	-	0.08	0.605	0.721
	LTE Band 25	20M	QPSK	1	49	-	Front	10mm	Ant 5	DSI 9/14	26340	1880	17.50	18.30	1.202	-	-	-0.17	0.153	0.184
	LTE Band 25	20M	QPSK	1	49	-	Back	10mm	Ant 5	DSI 9/14	26340	1880	17.50	18.30	1.202	-	-	0.15	0.172	0.207
	LTE Band 25	20M	QPSK	1	49	-	Right Side	10mm	Ant 5	DSI 9/14	26340	1880	17.50	18.30	1.202	-	-	-0.08	0.051	0.061
	LTE Band 25	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	26340	1880	17.50	18.30	1.202	-	-	-0.17	0.387	0.465
	LTE Band 25	20M	QPSK	50	24	-	Front	10mm	Ant 5	DSI 9/14	26340	1880	17.43	18.30	1.222	-	-	0.14	0.155	0.189
	LTE Band 25	20M	QPSK	50	24	-	Back	10mm	Ant 5	DSI 9/14	26340	1880	17.43	18.30	1.222	-	-	0.11	0.169	0.206
	LTE Band 25	20M	QPSK	50	24	-	Right Side	10mm	Ant 5	DSI 9/14	26340	1880	17.43	18.30	1.222	-	-	-0.12	0.052	0.064
	LTE Band 25	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	26340	1880	17.43	18.30	1.222	-	-	0.16	0.386	0.472
	LTE Band 25	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	26140	1860	17.33	18.30	1.250	-	-	-0.04	0.394	0.493
	LTE Band 25	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	26590	1905	17.34	18.30	1.247	-	-	-0.01	0.378	0.472
	FR1 n25	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9/14	376500	1882.5	18.79	19.30	1.125	-	-	0.06	0.057	0.064
	FR1 n25	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9/14	376500	1882.5	18.79	19.30	1.125	-	-	0.13	0.113	0.127
	FR1 n25	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	376500	1882.5	18.79	19.30	1.125	-	-	-0.06	0.173	0.195
	FR1 n25	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 0	DSI 9/14	376500	1882.5	18.76	19.30	1.132	-	-	-0.06	0.066	0.075
	FR1 n25	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 0	DSI 9/14	376500	1882.5	18.76	19.30	1.132	-	-	0.08	0.131	0.148
	FR1 n25	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	376500	1882.5	18.76	19.30	1.132	-	-	-0.06	0.191	0.216
	FR1 n25	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	DSI 9/14	376500	1882.5	17.69	18.20	1.125	-	-	0.18	0.150	0.169
	FR1 n25	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	DSI 9/14	376500	1882.5	17.69	18.20	1.125	-	-	0	0.167	0.188
	FR1 n25	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	376500	1882.5	17.69	18.20	1.125	-	-	-0.08	0.064	0.072
	FR1 n25	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	376500	1882.5	17.69	18.20	1.125	-	-	-0.17	0.389	0.437
	FR1 n25	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	DSI 9/14	376500	1882.5	17.60	18.20	1.148	-	-	-0.18	0.144	0.165
	FR1 n25	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	DSI 9/14	376500	1882.5	17.60	18.20	1.148	-	-	0.17	0.159	0.183
	FR1 n25	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	376500	1882.5	17.60	18.20	1.148	-	-	0.07	0.060	0.069
47	FR1 n25	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	376500	1882.5	17.60	18.20	1.148	-	-	-0.09	0.385	**0.442**
2300MHz																				
	LTE Band 30	10M	QPSK	1	25	-	Front	10mm	Ant 0	DSI 9/14	27710	2310	20.46	20.90	1.107	-	-	0.05	0.192	0.212
	LTE Band 30	10M	QPSK	1	25	-	Back	10mm	Ant 0	DSI 9/14	27710	2310	20.46	20.90	1.107	-	-	-0.12	0.360	0.398
48	LTE Band 30	10M	QPSK	1	25	-	Left Side	10mm	Ant 0	DSI 9/14	27710	2310	20.46	20.90	1.107	-	-	0.08	0.627	**0.694**
	LTE Band 30	10M	QPSK	25	12	-	Front	10mm	Ant 0	DSI 9/14	27710	2310	20.35	20.90	1.135	-	-	-0.17	0.188	0.213
	LTE Band 30	10M	QPSK	25	12	-	Back	10mm	Ant 0	DSI 9/14	27710	2310	20.35	20.90	1.135	-	-	-0.13	0.366	0.415
	LTE Band 30	10M	QPSK	25	12	-	Left Side	10mm	Ant 0	DSI 9/14	27710	2310	20.35	20.90	1.135	-	-	-0.1	0.606	0.688
	LTE Band 30	10M	QPSK	50	0	-	Left Side	10mm	Ant 0	DSI 9/14	27710	2310	20.13	20.90	1.194	-	-	-0.02	0.580	0.693
	LTE Band 30	10M	QPSK	1	25	-	Front	10mm	Ant 5	DSI 9/14	27710	2310	19.80	20.30	1.122	-	-	-0.1	0.238	0.267
	LTE Band 30	10M	QPSK	1	25	-	Back	10mm	Ant 5	DSI 9/14	27710	2310	19.80	20.30	1.122	-	-	0.16	0.268	0.301
	LTE Band 30	10M	QPSK	1	25	-	Right Side	10mm	Ant 5	DSI 9/14	27710	2310	19.80	20.30	1.122	-	-	0.13	0.070	0.079
	LTE Band 30	10M	QPSK	1	25	-	Bottom Side	10mm	Ant 5	DSI 9/14	27710	2310	19.80	20.30	1.122	-	-	-0.11	0.326	0.366
	LTE Band 30	10M	QPSK	25	12	-	Front	10mm	Ant 5	DSI 9/14	27710	2310	19.62	20.30	1.169	-	-	-0.06	0.239	0.280

	LTE Band 30	10M	QPSK	25	12	-	Back	10mm	Ant 5	DSI 9/14	27710	2310	19.62	20.30	1.169	-	-	0.09	0.270	0.316
	LTE Band 30	10M	QPSK	25	12	-	Right Side	10mm	Ant 5	DSI 9/14	27710	2310	19.62	20.30	1.169	-	-	0.12	0.070	0.082
	LTE Band 30	10M	QPSK	25	12	-	Bottom Side	10mm	Ant 5	DSI 9/14	27710	2310	19.62	20.30	1.169	-	-	-0.18	0.347	0.406
	FR1 n30	10M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9/14	462000	2310	17.53	18.30	1.194	-	-	-0.09	0.071	0.085
	FR1 n30	10M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9/14	462000	2310	17.53	18.30	1.194	-	-	-0.18	0.133	0.159
49	FR1 n30	10M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	462000	2310	17.53	18.30	1.194	-	-	0.04	0.238	**0.284**
	FR1 n30	10M	QPSK	25	14	DFT-15	Front	10mm	Ant 0	DSI 9/14	462000	2310	17.45	18.30	1.216	-	-	0.08	0.070	0.085
	FR1 n30	10M	QPSK	25	14	DFT-15	Back	10mm	Ant 0	DSI 9/14	462000	2310	17.45	18.30	1.216	-	-	-0.06	0.137	0.167
	FR1 n30	10M	QPSK	25	14	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	462000	2310	17.45	18.30	1.216	-	-	0.11	0.218	0.265
	FR1 n30	10M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	DSI 9/14	462000	2310	15.78	16.70	1.236	-	-	-0.16	0.072	0.089
	FR1 n30	10M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	DSI 9/14	462000	2310	15.78	16.70	1.236	-	-	0.18	0.079	0.098
	FR1 n30	10M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	462000	2310	15.78	16.70	1.236	-	-	-	n/a	n/a
	FR1 n30	10M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	462000	2310	15.78	16.70	1.236	-	-	-0.1	0.128	0.158
	FR1 n30	10M	QPSK	25	14	DFT-15	Front	10mm	Ant 5	DSI 9/14	462000	2310	15.68	16.70	1.265	-	-	0.12	0.070	0.089
	FR1 n30	10M	QPSK	25	14	DFT-15	Back	10mm	Ant 5	DSI 9/14	462000	2310	15.68	16.70	1.265	-	-	-0.18	0.086	0.109
	FR1 n30	10M	QPSK	25	14	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	462000	2310	15.68	16.70	1.265	-	-	-	n/a	n/a
	FR1 n30	10M	QPSK	25	14	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	462000	2310	15.68	16.70	1.265	-	-	-0.14	0.102	0.129
2600MHz																				
	LTE Band 7	20M	QPSK	1	49	-	Front	10mm	Ant 0	DSI 9/14	21100	2535	21.58	21.90	1.076	-	-	-0.08	0.216	0.233
	LTE Band 7	20M	QPSK	1	49	-	Back	10mm	Ant 0	DSI 9/14	21100	2535	21.58	21.90	1.076	-	-	0.06	0.402	0.433
	LTE Band 7	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	21100	2535	21.58	21.90	1.076	-	-	0.14	0.743	0.800
	LTE Band 7	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	20850	2510	21.37	21.90	1.130	-	-	0.04	0.676	0.764
	LTE Band 7	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	21350	2560	21.48	21.90	1.102	-	-	0.05	0.802	0.883
	LTE Band 7	20M	QPSK	50	24	-	Front	10mm	Ant 0	DSI 9/14	21100	2535	21.57	21.90	1.079	-	-	0.04	0.222	0.240
	LTE Band 7	20M	QPSK	50	24	-	Back	10mm	Ant 0	DSI 9/14	21100	2535	21.57	21.90	1.079	-	-	-0.07	0.420	0.453
	LTE Band 7	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	21100	2535	21.57	21.90	1.079	-	-	0.02	0.760	0.820
	LTE Band 7	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	20850	2510	21.37	21.90	1.130	-	-	0.07	0.700	0.791
50	LTE Band 7	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	21350	2560	21.48	21.90	1.102	-	-	-0.08	0.820	**0.903**
	LTE Band 7C	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	21350+ 21152	2560+ 2540.2	21.43	21.90	1.114	-	-	0.02	0.801	0.893
	LTE Band 7	20M	QPSK	100	0	-	Left Side	10mm	Ant 0	DSI 9/14	21100	2535	21.37	21.90	1.130	-	-	-0.02	0.755	0.853
	LTE Band 7	20M	QPSK	1	49	-	Front	10mm	Ant 5	DSI 9/14	21100	2535	18.65	19.30	1.161	-	-	-0.11	0.182	0.211
	LTE Band 7	20M	QPSK	1	49	-	Back	10mm	Ant 5	DSI 9/14	21100	2535	18.65	19.30	1.161	-	-	0.14	0.195	0.226
	LTE Band 7	20M	QPSK	1	49	-	Right Side	10mm	Ant 5	DSI 9/14	21100	2535	18.65	19.30	1.161	-	-	-0.06	0.055	0.064
	LTE Band 7	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	21100	2535	18.65	19.30	1.161	-	-	-0.08	0.418	0.485
	LTE Band 7	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	20850	2510	18.50	19.30	1.202	-	-	-0.16	0.433	0.521
	LTE Band 7C	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	20850+ 21048	2510+ 2529.8	18.44	19.30	1.219	-	-	0.01	0.429	0.523
	LTE Band 7	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	21350	2560	18.53	19.30	1.194	-	-	-0.17	0.365	0.436
	LTE Band 7	20M	QPSK	50	24	-	Front	10mm	Ant 5	DSI 9/14	21100	2535	18.59	19.30	1.178	-	-	-0.17	0.183	0.216
	LTE Band 7	20M	QPSK	50	24	-	Back	10mm	Ant 5	DSI 9/14	21100	2535	18.59	19.30	1.178	-	-	-0.09	0.196	0.231
	LTE Band 7	20M	QPSK	50	24	-	Right Side	10mm	Ant 5	DSI 9/14	21100	2535	18.59	19.30	1.178	-	-	-0.01	0.063	0.074
	LTE Band 7	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	21100	2535	18.59	19.30	1.178	-	-	0.17	0.410	0.483
	LTE Band 7	20M	QPSK	1	49	-	Front	10mm	Ant 6	DSI 9/14	21100	2535	18.35	18.80	1.109	-	-	-0.18	0.187	0.207
	LTE Band 7	20M	QPSK	1	49	-	Back	10mm	Ant 6	DSI 9/14	21100	2535	18.35	18.80	1.109	-	-	-0.03	0.220	0.244
	LTE Band 7	20M	QPSK	1	49	-	Left Side	10mm	Ant 6	DSI 9/14	21100	2535	18.35	18.80	1.109	-	-	0.18	0.049	0.054
	LTE Band 7	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	21100	2535	18.35	18.80	1.109	-	-	0.1	0.601	0.667
	LTE Band 7	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	20850	2510	18.15	18.80	1.161	-	-	-0.1	0.530	0.616
	LTE Band 7	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	21350	2560	18.23	18.80	1.140	-	-	-0.03	0.528	0.602
	LTE Band 7	20M	QPSK	50	24	-	Front	10mm	Ant 6	DSI 9/14	21100	2535	18.31	18.80	1.119	-	-	-0.07	0.185	0.207
	LTE Band 7	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	21100	2535	18.31	18.80	1.119	-	-	-0.12	0.223	0.250
	LTE Band 7	20M	QPSK	50	24	-	Left Side	10mm	Ant 6	DSI 9/14	21100	2535	18.31	18.80	1.119	-	-	-0.02	0.054	0.060
	LTE Band 7	20M	QPSK	50	24	-	Top Side	10mm	Ant 6	DSI 9/14	21100	2535	18.31	18.80	1.119	-	-	-0.17	0.592	0.663
	LTE Band 7	20M	QPSK	100	0	-	Top Side	10mm	Ant 6	DSI 9/14	21100	2535	18.22	18.80	1.143	-	-	-0.1	0.571	0.653
	LTE Band 7	20M	QPSK	1	49	-	Front	10mm	Ant 7	DSI 9/14	21100	2535	20.33	20.60	1.064	-	-	0.1	0.196	0.209
	LTE Band 7	20M	QPSK	1	49	-	Back	10mm	Ant 7	DSI 9/14	21100	2535	20.33	20.60	1.064	-	-	-0.06	0.444	0.472
	LTE Band 7	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	21100	2535	20.33	20.60	1.064	-	-	0.01	0.692	0.736

	LTE Band 7	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	20850	2510	20.30	20.60	1.072	-	-	-0.1	0.715	0.766
	LTE Band 7	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	21350	2560	20.26	20.60	1.081	-	-	-0.02	0.649	0.702
	LTE Band 7	20M	QPSK	50	24	-	Front	10mm	Ant 7	DSI 9/14	21100	2535	20.22	20.60	1.091	-	-	0.01	0.195	0.213
	LTE Band 7	20M	QPSK	50	24	-	Back	10mm	Ant 7	DSI 9/14	21100	2535	20.22	20.60	1.091	-	-	0.14	0.455	0.497
	LTE Band 7	20M	QPSK	50	24	-	Right Side	10mm	Ant 7	DSI 9/14	21100	2535	20.22	20.60	1.091	-	-	-0.16	0.673	0.735
	LTE Band 38	20M	QPSK	1	49	-	Front	10mm	Ant 0	DSI 9/14	38000	2595	24.09	24.40	1.074	62.9	1.006	-0.14	0.247	0.267
	LTE Band 38	20M	QPSK	1	49	-	Back	10mm	Ant 0	DSI 9/14	38000	2595	24.09	24.40	1.074	62.9	1.006	-0.07	0.453	0.489
51	LTE Band 38	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	38000	2595	24.09	24.40	1.074	62.9	1.006	0.18	0.829	**0.896**
	LTE Band 38	20M	QPSK	50	24	-	Front	10mm	Ant 0	DSI 9/14	38000	2595	23.10	23.40	1.072	62.9	1.006	0.02	0.199	0.215
	LTE Band 38	20M	QPSK	50	24	-	Back	10mm	Ant 0	DSI 9/14	38000	2595	23.10	23.40	1.072	62.9	1.006	-0.07	0.367	0.396
	LTE Band 38	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	38000	2595	23.10	23.40	1.072	62.9	1.006	-0.08	0.678	0.731
	LTE Band 38	20M	QPSK	100	0	-	Left Side	10mm	Ant 0	DSI 9/14	38000	2595	23.09	23.40	1.074	62.9	1.006	0.06	0.673	0.727
	LTE Band 38	20M	QPSK	1	49	-	Front	10mm	Ant 5	DSI 9/14	38000	2595	20.63	21.30	1.167	62.9	1.006	0.13	0.192	0.225
	LTE Band 38	20M	QPSK	1	49	-	Back	10mm	Ant 5	DSI 9/14	38000	2595	20.63	21.30	1.167	62.9	1.006	-0.02	0.210	0.247
	LTE Band 38	20M	QPSK	1	49	-	Right Side	10mm	Ant 5	DSI 9/14	38000	2595	20.63	21.30	1.167	62.9	1.006	-0.05	0.046	0.054
	LTE Band 38	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	38000	2595	20.63	21.30	1.167	62.9	1.006	0.02	0.403	0.473
	LTE Band 38	20M	QPSK	50	24	-	Front	10mm	Ant 5	DSI 9/14	38000	2595	20.58	21.30	1.180	62.9	1.006	-0.05	0.194	0.230
	LTE Band 38	20M	QPSK	50	24	-	Back	10mm	Ant 5	DSI 9/14	38000	2595	20.58	21.30	1.180	62.9	1.006	-0.15	0.217	0.258
	LTE Band 38	20M	QPSK	50	24	-	Right Side	10mm	Ant 5	DSI 9/14	38000	2595	20.58	21.30	1.180	62.9	1.006	-0.05	0.048	0.057
	LTE Band 38	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	38000	2595	20.58	21.30	1.180	62.9	1.006	0.1	0.412	0.489
	LTE Band 41	20M	QPSK	1	49	-	Front	10mm	Ant 0	DSI 9/14	40620	2593	23.50	23.80	1.072	62.9	1.006	0.14	0.244	0.263
	LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 0	DSI 9/14	40620	2593	23.50	23.80	1.072	62.9	1.006	0.11	0.417	0.450
	LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	40620	2593	23.50	23.80	1.072	62.9	1.006	0.02	0.820	0.884
	LTE Band 41C	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	40620+ 40818	2593+ 2612.8	23.45	23.80	1.084	62.9	1.006	0.02	0.783	0.854
	LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	39750	2506	23.42	23.80	1.091	62.9	1.006	-0.04	0.732	0.804
	LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	40185	2549.5	23.47	23.80	1.079	62.9	1.006	0.07	0.813	0.882
	LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	41055	2636.5	23.47	23.80	1.079	62.9	1.006	-0.15	0.780	0.847
	LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	41490	2680	23.48	23.80	1.076	62.9	1.006	0.14	0.640	0.693
52	LTE Band 41 PC2	20M	QPSK	1	49	-	Left Side	10mm	Ant 0	DSI 9/14	40620	2593	25.00	25.40	1.096	42.9	1.009	0.03	0.809	**0.895**
	LTE Band 41	20M	QPSK	50	24	-	Front	10mm	Ant 0	DSI 9/14	40620	2593	22.53	22.80	1.064	62.9	1.006	0.02	0.188	0.201
	LTE Band 41	20M	QPSK	50	24	-	Back	10mm	Ant 0	DSI 9/14	40620	2593	22.53	22.80	1.064	62.9	1.006	0.12	0.340	0.364
	LTE Band 41	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	40620	2593	22.53	22.80	1.064	62.9	1.006	0.02	0.657	0.703
	LTE Band 41	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	39750	2506	22.45	22.80	1.084	62.9	1.006	-0.11	0.565	0.616
	LTE Band 41	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	40185	2549.5	22.48	22.80	1.076	62.9	1.006	-0.18	0.658	0.713
	LTE Band 41	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	41055	2636.5	22.52	22.80	1.067	62.9	1.006	0.13	0.635	0.681
	LTE Band 41	20M	QPSK	50	24	-	Left Side	10mm	Ant 0	DSI 9/14	41490	2680	22.44	22.80	1.086	62.9	1.006	0.12	0.488	0.533
	LTE Band 41	20M	QPSK	100	0	-	Left Side	10mm	Ant 0	DSI 9/14	40620	2593	22.48	22.80	1.076	62.9	1.006	-0.11	0.647	0.701
	LTE Band 41	20M	QPSK	1	49	-	Front	10mm	Ant 5	DSI 9/14	40620	2593	19.52	20.30	1.197	62.9	1.006	-0.1	0.156	0.188
	LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 5	DSI 9/14	40620	2593	19.52	20.30	1.197	62.9	1.006	0	0.176	0.212
	LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 5	DSI 9/14	40620	2593	19.52	20.30	1.197	62.9	1.006	-0.16	0.056	0.067
	LTE Band 41	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	40620	2593	19.52	20.30	1.197	62.9	1.006	0.18	0.345	0.415
	LTE Band 41	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	39750	2506	19.44	20.30	1.219	62.9	1.006	0.17	0.357	0.438
	LTE Band 41	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	40185	2549.5	19.39	20.30	1.233	62.9	1.006	-0.06	0.355	0.440
	LTE Band 41	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	41055	2636.5	19.45	20.30	1.216	62.9	1.006	-0.14	0.363	0.444
	LTE Band 41C	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	41055+ 41253	2636.5+ 2656.3	19.40	20.30	1.230	62.9	1.006	0.04	0.355	0.439
	LTE Band 41	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	41490	2680	19.48	20.30	1.208	62.9	1.006	-0.18	0.354	0.430
	LTE Band 41 PC2	20M	QPSK	1	49	-	Bottom Side	10mm	Ant 5	DSI 9/14	41055	2636.5	21.17	21.90	1.183	42.9	1.009	-0.01	0.343	0.409
	LTE Band 41	20M	QPSK	50	24	-	Front	10mm	Ant 5	DSI 9/14	40620	2593	19.48	20.30	1.208	62.9	1.006	-0.02	0.152	0.185
	LTE Band 41	20M	QPSK	50	24	-	Back	10mm	Ant 5	DSI 9/14	40620	2593	19.48	20.30	1.208	62.9	1.006	-0.02	0.174	0.211
	LTE Band 41	20M	QPSK	50	24	-	Right Side	10mm	Ant 5	DSI 9/14	40620	2593	19.48	20.30	1.208	62.9	1.006	0.18	0.055	0.067
	LTE Band 41	20M	QPSK	50	24	-	Bottom Side	10mm	Ant 5	DSI 9/14	40620	2593	19.48	20.30	1.208	62.9	1.006	-0.04	0.342	0.416
	LTE Band 41	20M	QPSK	1	49	-	Front	10mm	Ant 6	DSI 9/14	40620	2593	21.85	22.30	1.109	62.9	1.006	0.13	0.218	0.243
	LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 6	DSI 9/14	40620	2593	21.85	22.30	1.109	62.9	1.006	-0.05	0.257	0.287
	LTE Band 41	20M	QPSK	1	49	-	Left Side	10mm	Ant 6	DSI 9/14	40620	2593	21.85	22.30	1.109	62.9	1.006	0.03	0.068	0.076
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	40620	2593	21.85	22.30	1.109	62.9	1.006	-0.07	0.542	0.605

	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	39750	2506	21.80	22.30	1.122	62.9	1.006	-0.17	0.715	0.807
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	40185	2549.5	21.82	22.30	1.117	62.9	1.006	0.18	0.754	0.847
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	41055	2636.5	21.77	22.30	1.130	62.9	1.006	-0.18	0.308	0.350
	LTE Band 41	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	41490	2680	21.80	22.30	1.122	62.9	1.006	-0.16	0.172	0.194
	LTE Band 41 PC2	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	40185	2549.5	23.44	23.90	1.112	42.9	1.009	0.15	0.727	0.816
	LTE Band 41	20M	QPSK	50	24	-	Front	10mm	Ant 6	DSI 9/14	40620	2593	21.80	22.30	1.122	62.9	1.006	-0.17	0.221	0.249
	LTE Band 41	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	40620	2593	21.80	22.30	1.122	62.9	1.006	-0.02	0.266	0.300
	LTE Band 41	20M	QPSK	50	24	-	Left Side	10mm	Ant 6	DSI 9/14	40620	2593	21.80	22.30	1.122	62.9	1.006	-0.04	0.064	0.072
	LTE Band 41	20M	QPSK	50	24	-	Top Side	10mm	Ant 6	DSI 9/14	40620	2593	21.80	22.30	1.122	62.9	1.006	0.03	0.520	0.587
	LTE Band 41	20M	QPSK	100	0	-	Top Side	10mm	Ant 6	DSI 9/14	40620	2593	21.78	22.30	1.127	62.9	1.006	0.16	0.518	0.587
	LTE Band 41	20M	QPSK	1	49	-	Front	10mm	Ant 7	DSI 9/14	40620	2593	22.85	23.00	1.035	62.9	1.006	0.02	0.124	0.129
	LTE Band 41	20M	QPSK	1	49	-	Back	10mm	Ant 7	DSI 9/14	40620	2593	22.85	23.00	1.035	62.9	1.006	-0.02	0.334	0.348
	LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	40620	2593	22.85	23.00	1.035	62.9	1.006	-0.02	0.415	0.432
	LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	39750	2506	22.70	23.00	1.072	62.9	1.006	-0.03	0.410	0.442
	LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	40185	2549.5	22.83	23.00	1.040	62.9	1.006	-0.14	0.440	0.460
	LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	41055	2636.5	22.82	23.00	1.042	62.9	1.006	-0.11	0.397	0.416
	LTE Band 41	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	41490	2680	22.75	23.00	1.059	62.9	1.006	-0.16	0.318	0.339
	LTE Band 41 PC2	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	40185	2549.5	24.48	24.60	1.028	42.9	1.009	-0.16	0.431	0.447
	LTE Band 41	20M	QPSK	50	24	-	Front	10mm	Ant 7	DSI 9/14	40620	2593	22.79	23.00	1.050	62.9	1.006	-0.06	0.123	0.130
	LTE Band 41	20M	QPSK	50	24	-	Back	10mm	Ant 7	DSI 9/14	40620	2593	22.79	23.00	1.050	62.9	1.006	-0.07	0.312	0.329
	LTE Band 41	20M	QPSK	50	24	-	Right Side	10mm	Ant 7	DSI 9/14	40620	2593	22.79	23.00	1.050	62.9	1.006	-0.05	0.403	0.426
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	DSI 9/14	507000	2535	20.28	21.30	1.265	-	-	0.03	0.195	0.247
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	DSI 9/14	507000	2535	20.28	21.30	1.265	-	-	0.12	0.369	0.467
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	507000	2535	20.28	21.30	1.265	-	-	-0.14	0.692	0.875
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 0	DSI 9/14	507000	2535	20.22	21.30	1.282	-	-	0.13	0.201	0.258
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 0	DSI 9/14	507000	2535	20.22	21.30	1.282	-	-	0.09	0.382	0.490
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	507000	2535	20.22	21.30	1.282	-	-	-0.06	0.698	0.895
	FR1 n7	40M	QPSK	216	0	DFT-15	Left Side	10mm	Ant 0	DSI 9/14	507000	2535	20.16	21.30	1.300	-	-	0.08	0.665	0.865
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	DSI 9/14	507000	2535	17.50	18.70	1.318	-	-	0.18	0.158	0.208
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	DSI 9/14	507000	2535	17.50	18.70	1.318	-	-	0.01	0.205	0.270
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	507000	2535	17.50	18.70	1.318	-	-	0.04	0.057	0.075
	FR1 n7	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	507000	2535	17.50	18.70	1.318	-	-	-0.13	0.358	0.472
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	DSI 9/14	507000	2535	17.42	18.70	1.343	-	-	0.06	0.150	0.201
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	DSI 9/14	507000	2535	17.42	18.70	1.343	-	-	-0.15	0.196	0.263
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 5	DSI 9/14	507000	2535	17.42	18.70	1.343	-	-	-0.09	0.048	0.064
	FR1 n7	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 5	DSI 9/14	507000	2535	17.42	18.70	1.343	-	-	0.12	0.335	0.450
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	DSI 9/14	507000	2535	17.20	18.20	1.259	-	-	-0.18	0.216	0.272
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	DSI 9/14	507000	2535	17.20	18.20	1.259	-	-	0.1	0.292	0.368
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	DSI 9/14	507000	2535	17.20	18.20	1.259	-	-	0.02	0.105	0.132
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	DSI 9/14	507000	2535	17.20	18.20	1.259	-	-	-0.02	0.700	0.881
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 6	DSI 9/14	507000	2535	17.15	18.20	1.274	-	-	-0.15	0.224	0.285
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 6	DSI 9/14	507000	2535	17.15	18.20	1.274	-	-	-0.11	0.297	0.378
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 6	DSI 9/14	507000	2535	17.15	18.20	1.274	-	-	-0.08	0.109	0.139
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 6	DSI 9/14	507000	2535	17.15	18.20	1.274	-	-	-0.08	0.711	0.905
	FR1 n7	40M	QPSK	216	0	DFT-15	Top Side	10mm	Ant 6	DSI 9/14	507000	2535	17.12	18.20	1.282	-	-	0.03	0.663	0.850
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 7	DSI 9/14	507000	2535	18.52	19.50	1.253	-	-	-0.02	0.202	0.253
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 7	DSI 9/14	507000	2535	18.52	19.50	1.253	-	-	-0.07	0.513	0.643
53	FR1 n7	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 7	DSI 9/14	507000	2535	18.52	19.50	1.253	-	-	-0.05	0.729	**0.914**
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 7	DSI 9/14	507000	2535	18.46	19.50	1.271	-	-	0.01	0.203	0.258
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 7	DSI 9/14	507000	2535	18.46	19.50	1.271	-	-	0.17	0.528	0.671
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 7	DSI 9/14	507000	2535	18.46	19.50	1.271	-	-	0.15	0.713	0.906
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Side	10mm	Ant 7	DSI 9/14	507000	2535	18.45	19.50	1.274	-	-	0.15	0.707	0.900
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	DSI 9/14	519000	2595	19.40	20.30	1.230	-	-	0.08	0.215	0.265
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	DSI 9/14	519000	2595	19.40	20.30	1.230	-	-	-0.12	0.366	0.450
54	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	DSI 9/14	519000	2595	19.40	20.30	1.230	-	-	-0.07	0.756	**0.930**
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 0	DSI 9/14	519000	2595	19.38	20.30	1.236	-	-	0.03	0.199	0.246

	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 0	DSI 9/14	519000	2595	19.38	20.30	1.236	-	-	-0.13	0.342	0.423
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 0	DSI 9/14	519000	2595	19.38	20.30	1.236	-	-	0.01	0.732	0.905
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	DSI 9/14	518598	2592.99	19.31	20.20	1.227	-	-	0.11	0.166	0.204
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	DSI 9/14	518598	2592.99	19.31	20.20	1.227	-	-	0.14	0.288	0.354
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	DSI 9/14	518598	2592.99	19.31	20.20	1.227	-	-	0.13	0.486	0.597
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	DSI 9/14	518598	2592.99	19.26	20.20	1.242	-	-	-0.14	0.155	0.192
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	DSI 9/14	518598	2592.99	19.26	20.20	1.242	-	-	-0.15	0.294	0.365
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	DSI 9/14	518598	2592.99	19.26	20.20	1.242	-	-	-0.11	0.444	0.551
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	DSI 9/14	518598	2592.99	16.08	16.70	1.153	-	-	0.05	0.118	0.136
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	DSI 9/14	518598	2592.99	16.08	16.70	1.153	-	-	0.18	0.136	0.157
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 5	DSI 9/14	518598	2592.99	16.08	16.70	1.153	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 5	DSI 9/14	518598	2592.99	16.08	16.70	1.153	-	-	0.01	0.218	0.251
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	DSI 9/14	518598	2592.99	16.04	16.70	1.164	-	-	-0.12	0.101	0.118
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	DSI 9/14	518598	2592.99	16.04	16.70	1.164	-	-	-0.13	0.125	0.146
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 5	DSI 9/14	518598	2592.99	16.04	16.70	1.164	-	-	-	n/a	n/a
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 5	DSI 9/14	518598	2592.99	16.04	16.70	1.164	-	-	0.18	0.201	0.234
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI 9/14	518598	2592.99	19.88	20.20	1.076	-	-	-0.09	0.335	0.361
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9/14	518598	2592.99	19.88	20.20	1.076	-	-	-0.05	0.425	0.457
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	DSI 9/14	518598	2592.99	19.88	20.20	1.076	-	-	0.06	0.190	0.205
55	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI 9/14	518598	2592.99	19.88	20.20	1.076	-	-	-0.02	0.818	**0.881**
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 9/14	518598	2592.99	19.79	20.20	1.099	-	-	0.13	0.245	0.269
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 9/14	518598	2592.99	19.79	20.20	1.099	-	-	0.14	0.278	0.306
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	DSI 9/14	518598	2592.99	19.79	20.20	1.099	-	-	-0.14	0.162	0.178
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 9/14	518598	2592.99	19.79	20.20	1.099	-	-	0.17	0.643	0.707
	FR1 n41	100M	QPSK	270	0	DFT-30	Top Side	10mm	Ant 6	DSI 9/14	518598	2592.99	19.81	20.20	1.094	-	-	0.07	0.690	0.755
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	DSI 9/14	518598	2592.99	19.83	20.60	1.194	-	-	0.17	0.234	0.279
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	DSI 9/14	518598	2592.99	19.83	20.60	1.194	-	-	-0.18	0.526	0.628
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	518598	2592.99	19.83	20.60	1.194	-	-	0.06	0.720	0.860
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 9/14	518598	2592.99	19.70	20.60	1.230	-	-	0.13	0.196	0.241
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 9/14	518598	2592.99	19.70	20.60	1.230	-	-	0.16	0.489	0.602
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	518598	2592.99	19.70	20.60	1.230	-	-	-0.1	0.675	0.830
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	518598	2592.99	19.61	20.60	1.256	-	-	0.08	0.667	0.838
3000-4000MHz																				
	LTE Band 48	20M	QPSK	1	49	-	Front	10mm	Ant 6	DSI 9/14	55830	3609	17.61	18.30	1.172	62.9	1.006	0.15	0.111	0.131
	LTE Band 48	20M	QPSK	1	49	-	Back	10mm	Ant 6	DSI 9/14	55830	3609	17.61	18.30	1.172	62.9	1.006	-0.08	0.131	0.154
	LTE Band 48	20M	QPSK	1	49	-	Left Side	10mm	Ant 6	DSI 9/14	55830	3609	17.61	18.30	1.172	62.9	1.006	0.16	0.042	0.050
	LTE Band 48	20M	QPSK	1	49	-	Top Side	10mm	Ant 6	DSI 9/14	55830	3609	17.61	18.30	1.172	62.9	1.006	-0.07	0.099	0.117
	LTE Band 48	20M	QPSK	50	24	-	Front	10mm	Ant 6	DSI 9/14	55830	3609	17.56	18.30	1.186	62.9	1.006	-0.18	0.114	0.136
	LTE Band 48	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	55830	3609	17.56	18.30	1.186	62.9	1.006	-0.18	0.142	0.169
	LTE Band 48	20M	QPSK	50	24	-	Left Side	10mm	Ant 6	DSI 9/14	55830	3609	17.56	18.30	1.186	62.9	1.006	0.05	0.053	0.063
	LTE Band 48	20M	QPSK	50	24	-	Top Side	10mm	Ant 6	DSI 9/14	55830	3609	17.56	18.30	1.186	62.9	1.006	0.03	0.088	0.105
	LTE Band 48	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	55340	3560	17.38	18.30	1.236	62.9	1.006	-0.15	0.171	0.213
	LTE Band 48C	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	55340+ 55538	3560+ 3579.8	17.46	18.30	1.213	62.9	1.006	0.04	0.150	0.183
	LTE Band 48	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	56150	3641	17.47	18.30	1.211	62.9	1.006	0.04	0.123	0.150
	LTE Band 48	20M	QPSK	50	24	-	Back	10mm	Ant 6	DSI 9/14	56640	3690	17.48	18.30	1.208	62.9	1.006	0.12	0.099	0.120
	LTE Band 48	20M	QPSK	1	49	-	Front	10mm	Ant 14	DSI 9/14	55830	3609	18.22	18.80	1.143	62.9	1.006	0.06	0.096	0.110
	LTE Band 48	20M	QPSK	1	49	-	Back	10mm	Ant 14	DSI 9/14	55830	3609	18.22	18.80	1.143	62.9	1.006	-0.18	0.162	0.186
	LTE Band 48	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 9/14	55830	3609	18.22	18.80	1.143	62.9	1.006	-0.05	0.249	0.286
	LTE Band 48	20M	QPSK	1	49	-	Top Side	10mm	Ant 14	DSI 9/14	55830	3609	18.22	18.80	1.143	62.9	1.006	0.13	0.076	0.087
56	LTE Band 48	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 9/14	55340	3560	18.17	18.80	1.156	62.9	1.006	0.05	0.297	**0.345**
	LTE Band 48C	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 9/14	55340+ 55538	3560+ 3579.8	18.15	18.80	1.161	62.9	1.006	0.04	0.187	0.218
	LTE Band 48	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 9/14	56150	3641	18.15	18.80	1.161	62.9	1.006	0.06	0.280	0.327
	LTE Band 48	20M	QPSK	1	49	-	Left Side	10mm	Ant 14	DSI 9/14	56640	3690	18.10	18.80	1.175	62.9	1.006	0.02	0.230	0.272
	LTE Band 48	20M	QPSK	50	24	-	Front	10mm	Ant 14	DSI 9/14	55830	3609	18.17	18.80	1.156	62.9	1.006	0.18	0.093	0.108
	LTE Band 48	20M	QPSK	50	24	-	Back	10mm	Ant 14	DSI 9/14	55830	3609	18.17	18.80	1.156	62.9	1.006	0.14	0.159	0.185

LTE Band 48	20M	QPSK	50	24	-	Left Side	10mm	Ant 14	DSI 9/14	55830	3609	18.17	18.80	1.156	62.9	1.006	-0.05	0.240	0.279
LTE Band 48	20M	QPSK	50	24	-	Top Side	10mm	Ant 14	DSI 9/14	55830	3609	18.17	18.80	1.156	62.9	1.006	-0.16	0.074	0.086
LTE Band 48	20M	QPSK	1	49	-	Front	10mm	Ant 12	DSI 9/14	55830	3609	20.18	20.80	1.153	62.9	1.006	-0.08	0.216	0.251
LTE Band 48	20M	QPSK	1	49	-	Back	10mm	Ant 12	DSI 9/14	55830	3609	20.18	20.80	1.153	62.9	1.006	0.07	0.118	0.137
LTE Band 48	20M	QPSK	1	49	-	Right Side	10mm	Ant 12	DSI 9/14	55830	3609	20.18	20.80	1.153	62.9	1.006	-0.12	0.066	0.077
LTE Band 48	20M	QPSK	1	49	-	Top Side	10mm	Ant 12	DSI 9/14	55830	3609	20.18	20.80	1.153	62.9	1.006	0.17	0.125	0.145
LTE Band 48	20M	QPSK	1	49	-	Front	10mm	Ant 12	DSI 9/14	55340	3560	20.12	20.80	1.169	62.9	1.006	0.13	0.230	0.271
LTE Band 48	20M	QPSK	1	49	-	Front	10mm	Ant 12	DSI 9/14	56150	3641	20.17	20.80	1.156	62.9	1.006	0.05	0.173	0.201
LTE Band 48	20M	QPSK	1	49	-	Front	10mm	Ant 12	DSI 9/14	56640	3690	20.17	20.80	1.156	62.9	1.006	-0.15	0.163	0.190
LTE Band 48	20M	QPSK	50	24	-	Front	10mm	Ant 12	DSI 9/14	55830	3609	20.17	20.80	1.156	62.9	1.006	-0.09	0.211	0.245
LTE Band 48	20M	QPSK	50	24	-	Back	10mm	Ant 12	DSI 9/14	55830	3609	20.17	20.80	1.156	62.9	1.006	-0.17	0.115	0.134
LTE Band 48	20M	QPSK	50	24	-	Right Side	10mm	Ant 12	DSI 9/14	55830	3609	20.17	20.80	1.156	62.9	1.006	-0.14	0.062	0.072
LTE Band 48	20M	QPSK	50	24	-	Top Side	10mm	Ant 12	DSI 9/14	55830	3609	20.17	20.80	1.156	62.9	1.006	-0.18	0.124	0.144
LTE Band 48	20M	QPSK	1	49	-	Front	10mm	Ant 7	DSI 9/14	55830	3609	23.64	24.30	1.164	62.9	1.006	-	n/a	n/a
LTE Band 48	20M	QPSK	1	49	-	Back	10mm	Ant 7	DSI 9/14	55830	3609	23.64	24.30	1.164	62.9	1.006	-0.16	0.083	0.097
LTE Band 48	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	55830	3609	23.64	24.30	1.164	62.9	1.006	0.12	0.091	0.107
LTE Band 48	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	55340	3560	23.60	24.30	1.175	62.9	1.006	0.09	0.087	0.103
LTE Band 48	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	56150	3641	23.55	24.30	1.189	62.9	1.006	0.12	0.075	0.090
LTE Band 48	20M	QPSK	1	49	-	Right Side	10mm	Ant 7	DSI 9/14	56640	3690	23.45	24.30	1.216	62.9	1.006	0.07	0.092	0.113
LTE Band 48	20M	QPSK	50	24	-	Front	10mm	Ant 7	DSI 9/14	55830	3609	23.25	23.80	1.135	62.9	1.006	-	n/a	n/a
LTE Band 48	20M	QPSK	50	24	-	Back	10mm	Ant 7	DSI 9/14	55830	3609	23.25	23.80	1.135	62.9	1.006	0.08	0.071	0.081
LTE Band 48	20M	QPSK	50	24	-	Right Side	10mm	Ant 7	DSI 9/14	55830	3609	23.25	23.80	1.135	62.9	1.006	0.07	0.084	0.096
FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI 9/14	633332	3499.98	18.97	19.70	1.183	-	-	0.07	0.359	0.425
FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9/14	633332	3499.98	18.97	19.70	1.183	-	-	-0.06	0.391	0.463
FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	DSI 9/14	633332	3499.98	18.97	19.70	1.183	-	-	0.1	0.111	0.131
FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI 9/14	633332	3499.98	18.97	19.70	1.183	-	-	0.09	0.248	0.293
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 9/14	633332	3499.98	18.91	19.70	1.199	-	-	-0.08	0.330	0.396
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 9/14	633332	3499.98	18.91	19.70	1.199	-	-	-0.01	0.358	0.429
FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	DSI 9/14	633332	3499.98	18.91	19.70	1.199	-	-	0.14	0.109	0.131
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 9/14	633332	3499.98	18.91	19.70	1.199	-	-	0.14	0.280	0.336
FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	DSI 9/14	656000	3840	18.96	19.70	1.186	-	-	-0.15	0.185	0.219
FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	DSI 9/14	656000	3840	18.96	19.70	1.186	-	-	-0.05	0.196	0.232
FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	DSI 9/14	656000	3840	18.96	19.70	1.186	-	-	-0.08	0.080	0.095
FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	DSI 9/14	656000	3840	18.96	19.70	1.186	-	-	0.06	0.157	0.186
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	DSI 9/14	656000	3840	18.90	19.70	1.202	-	-	0.02	0.148	0.178
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	DSI 9/14	656000	3840	18.90	19.70	1.202	-	-	0.13	0.150	0.180
FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	DSI 9/14	656000	3840	18.90	19.70	1.202	-	-	0.12	0.056	0.067
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	DSI 9/14	656000	3840	18.90	19.70	1.202	-	-	-0.04	0.120	0.144
FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 14	DSI 9/14	633332	3499.98	16.65	17.20	1.135	-	-	0.02	0.191	0.217
FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 14	DSI 9/14	633332	3499.98	16.65	17.20	1.135	-	-	0.18	0.357	0.405
FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 14	DSI 9/14	633332	3499.98	16.65	17.20	1.135	-	-	-0.17	0.624	0.708
FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 14	DSI 9/14	633332	3499.98	16.65	17.20	1.135	-	-	-0.14	0.126	0.143
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 14	DSI 9/14	633332	3499.98	16.62	17.20	1.143	-	-	0.01	0.158	0.181
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 14	DSI 9/14	633332	3499.98	16.62	17.20	1.143	-	-	-0.17	0.310	0.354
FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 14	DSI 9/14	633332	3499.98	16.62	17.20	1.143	-	-	-0.14	0.554	0.633
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 14	DSI 9/14	633332	3499.98	16.62	17.20	1.143	-	-	-0.03	0.109	0.125
FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 14	DSI 9/14	656000	3840	16.48	17.20	1.180	-	-	0.1	0.093	0.110
FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 14	DSI 9/14	656000	3840	16.48	17.20	1.180	-	-	0.14	0.156	0.184
FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 14	DSI 9/14	656000	3840	16.48	17.20	1.180	-	-	0.12	0.256	0.302
FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 14	DSI 9/14	656000	3840	16.48	17.20	1.180	-	-	0.04	0.097	0.114
FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 14	DSI 9/14	656000	3840	16.47	17.20	1.183	-	-	-0.14	0.100	0.118
FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 14	DSI 9/14	656000	3840	16.47	17.20	1.183	-	-	-0.11	0.170	0.201
FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 14	DSI 9/14	656000	3840	16.47	17.20	1.183	-	-	0.11	0.265	0.314
FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 14	DSI 9/14	656000	3840	16.47	17.20	1.183	-	-	0.15	0.091	0.108
FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	DSI 9/14	633332	3499.98	22.15	22.70	1.135	-	-	0.14	0.580	0.658
FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	DSI 9/14	633332	3499.98	22.15	22.70	1.135	-	-	-0.09	0.392	0.445

	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 12	DSI 9/14	633332	3499.98	22.15	22.70	1.135	-	-	-0.1	0.175	0.199
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 12	DSI 9/14	633332	3499.98	22.15	22.70	1.135	-	-	-0.02	0.316	0.359
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	DSI 9/14	633332	3499.98	22.08	22.70	1.153	-	-	0.07	0.508	0.586
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	DSI 9/14	633332	3499.98	22.08	22.70	1.153	-	-	0.1	0.346	0.399
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 12	DSI 9/14	633332	3499.98	22.08	22.70	1.153	-	-	0.02	0.170	0.196
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 12	DSI 9/14	633332	3499.98	22.08	22.70	1.153	-	-	0.06	0.263	0.303
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 12	DSI 9/14	656000	3840	22.03	22.70	1.167	-	-	0.18	0.348	0.406
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 12	DSI 9/14	656000	3840	22.03	22.70	1.167	-	-	-0.09	0.243	0.284
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 12	DSI 9/14	656000	3840	22.03	22.70	1.167	-	-	-0.02	0.124	0.145
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 12	DSI 9/14	656000	3840	22.03	22.70	1.167	-	-	0.03	0.211	0.246
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 12	DSI 9/14	656000	3840	21.98	22.70	1.180	-	-	-0.11	0.355	0.419
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 12	DSI 9/14	656000	3840	21.98	22.70	1.180	-	-	0.07	0.237	0.280
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 12	DSI 9/14	656000	3840	21.98	22.70	1.180	-	-	0.09	0.121	0.143
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 12	DSI 9/14	656000	3840	21.98	22.70	1.180	-	-	0.11	0.201	0.237
	FR1 n77	100M	QPSK	270	0	DFT-30	Front	10mm	Ant 12	DSI 9/14	656000	3840	21.93	22.70	1.194	-	-	0.07	0.322	0.384
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	DSI 9/14	633332	3499.98	18.50	19.70	1.318	-	-	-0.15	0.072	0.095
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	DSI 9/14	633332	3499.98	18.50	19.70	1.318	-	-	-0.01	0.201	0.265
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	633332	3499.98	18.50	19.70	1.318	-	-	0.14	0.272	0.359
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 9/14	633332	3499.98	18.43	19.70	1.340	-	-	0.18	0.078	0.104
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 9/14	633332	3499.98	18.43	19.70	1.340	-	-	0.07	0.195	0.261
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	633332	3499.98	18.43	19.70	1.340	-	-	-0.11	0.291	0.390
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	DSI 9/14	656000	3840	18.93	19.70	1.194	-	-	-	n/a	n/a
57	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	DSI 9/14	656000	3840	18.93	19.70	1.194	-	-	0.01	0.832	**0.993**
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	DSI 9/14	656000	3840	18.93	19.70	1.194	-	-	-0.12	0.811	0.968
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	656000	3840	18.93	19.70	1.194	-	-	-0.12	0.520	0.621
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	DSI 9/14	656000	3840	18.83	19.70	1.222	-	-	-	n/a	n/a
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	DSI 9/14	656000	3840	18.83	19.70	1.222	-	-	-0.07	0.713	0.871
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	656000	3840	18.83	19.70	1.222	-	-	0.02	0.432	0.528
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	10mm	Ant 7	DSI 9/14	656000	3840	18.80	19.70	1.230	-	-	0.09	0.711	0.875
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Side	10mm	Ant 7	DSI 9/14	656000	3840	18.80	19.70	1.230	-	-	-0.04	0.428	0.527

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN2.4GHz/BT																
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	0.07	0.134	0.219
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	-0.06	0.184	0.301
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	0.05	0.155	0.254
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	-0.03	0.272	0.445
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Power Level 11	39	2441	16.80	18.00	1.318	76.87	1.301	0.16	0.252	0.432
58	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Power Level 11	78	2480	16.10	18.00	1.549	76.87	1.301	-0.01	0.433	**0.872**
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Power Level 10	78	2480	13.10	14.50	1.380	76.87	1.301	0.19	0.108	0.194
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 12	Power Level 9	78	2480	8.20	9.00	1.202	76.87	1.301	-0.17	0.058	0.091
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	-0.01	0.000	0.000
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	-0.19	0.060	0.094
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	0.02	0.103	0.162
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power Level 11	0	2402	17.10	18.00	1.230	76.42	1.309	-0.08	0.105	0.169
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power Level 11	78	2480	16.40	18.00	1.445	76.42	1.309	0.14	0.097	0.184
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power Level 10	78	2480	11.00	12.50	1.413	76.42	1.309	-0.06	0.031	0.058
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Power Level 9	78	2480	5.40	8.50	2.042	76.42	1.309	0.14	0.011	0.029
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 12+7	Power Level 1	6	2437	22.06	24.00	1.563	100.00	1.000	0.06	0.307	0.480
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 12+7	Power Level 1	6	2437	22.06	24.00	1.563	100.00	1.000	-0.06	0.441	0.689
59	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Power Level 1	6	2437	22.06	24.00	1.563	100.00	1.000	0.16	0.655	**1.024**
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 12+7	Power Level 1	6	2437	22.06	24.00	1.563	100.00	1.000	0.17	0.461	0.721
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Power Level 1	1	2412	19.16	21.00	1.527	100.00	1.000	0.17	0.328	0.501
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Power Level 1	11	2462	19.21	21.00	1.510	100.00	1.000	-0.02	0.365	0.551
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Power Level 2	6	2437	21.11	23.00	1.545	100.00	1.000	0.03	0.524	0.810
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Power Level 3	6	2437	20.12	22.00	1.542	100.00	1.000	-0.19	0.417	0.643
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Power Level 4	6	2437	19.12	21.00	1.541	100.00	1.000	-0.16	0.309	0.476
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 12+7	Power Level 6	6	2437	15.10	17.00	1.549	100.00	1.000	-0.18	0.122	0.189
WLAN5GHz																
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	-0.12	0.104	0.151
60	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	0.08	0.606	**0.879**
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	-0.15	0.429	0.622
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	0.18	0.085	0.123
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	0.13	0.343	0.497
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	-0.16	0.088	0.134
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	0.09	0.477	0.724
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	0.02	0.278	0.422
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	-	n/a	n/a
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	-0.09	0.284	0.431
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 3	42	5210	16.15	18.00	1.531	100.00	1.000	0.01	0.371	0.568
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 4	42	5210	15.19	17.00	1.519	100.00	1.000	-0.07	0.289	0.439
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 6	42	5210	11.21	13.00	1.510	100.00	1.000	-0.02	0.114	0.172
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9	Power Level 1	155	5775	17.53	19.50	1.574	100.00	1.000	0.06	0.206	0.324
61	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9	Power Level 1	155	5775	17.53	19.50	1.574	100.00	1.000	0.09	0.758	**1.193**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9	Power Level 1	155	5775	17.53	19.50	1.574	100.00	1.000	-0.11	0.159	0.250
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9	Power Level 1	155	5775	17.53	19.50	1.574	100.00	1.000	-0.1	0.476	0.749
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 15	Power Level 1	155	5775	12.15	14.00	1.531	100.00	1.000	-	n/a	n/a
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 15	Power Level 1	155	5775	12.15	14.00	1.531	100.00	1.000	0.13	0.726	1.112
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 15	Power Level 1	155	5775	12.15	14.00	1.531	100.00	1.000	-0.06	0.174	0.266
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+15	Power Level 2	155	5775	14.86	16.50	1.459	100.00	1.000	-	n/a	n/a
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 2	155	5775	14.86	16.50	1.459	100.00	1.000	0.08	0.685	0.999
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Side	10mm	Ant 9+15	Power Level 2	155	5775	14.86	16.50	1.459	100.00	1.000	-0.1	0.162	0.236
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+15	Power Level 2	155	5775	14.86	16.50	1.459	100.00	1.000	-	n/a	n/a
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+15	Power Level 2	155	5775	14.86	16.50	1.459	100.00	1.000	0.02	0.127	0.185
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 3	155	5775	13.12	15.00	1.542	100.00	1.000	0.14	0.485	0.748
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 4	155	5775	12.18	14.00	1.522	100.00	1.000	-0.02	0.381	0.580
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+15	Power Level 6	155	5775	8.20	10.00	1.515	100.00	1.000	0.02	0.151	0.229

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 71	20M	QPSK	1	49	-	Front	15mm	Ant 1	DSI 4	133297	680.5	24.06	24.60	1.132	-	-	0.04	0.149	0.169
	LTE Band 71	20M	QPSK	1	49	-	Back	15mm	Ant 1	DSI 4	133297	680.5	24.06	24.60	1.132	-	-	0.03	0.145	0.164
	LTE Band 71	20M	QPSK	50	24	-	Front	15mm	Ant 1	DSI 4	133297	680.5	23.13	23.60	1.114	-	-	-0.17	0.128	0.143
	LTE Band 71	20M	QPSK	50	24	-	Back	15mm	Ant 1	DSI 4	133297	680.5	23.13	23.60	1.114	-	-	-0.08	0.125	0.139
	LTE Band 71	20M	QPSK	1	49	-	Front	15mm	Ant 0	DSI 4	133297	680.5	23.38	24.00	1.153	-	-	0.02	0.132	0.152
62	LTE Band 71	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	133297	680.5	23.38	24.00	1.153	-	-	-0.06	0.164	**0.189**
	LTE Band 71	20M	QPSK	50	24	-	Front	15mm	Ant 0	DSI 4	133297	680.5	22.33	23.00	1.167	-	-	0.04	0.104	0.121
	LTE Band 71	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4	133297	680.5	22.33	23.00	1.167	-	-	-0.15	0.143	0.167
	LTE Band 12	10M	QPSK	1	25	-	Front	15mm	Ant 1	DSI 4	23095	707.5	23.41	24.30	1.227	-	-	0.12	0.147	0.180
	LTE Band 12	10M	QPSK	1	25	-	Back	15mm	Ant 1	DSI 4	23095	707.5	23.41	24.30	1.227	-	-	0	0.120	0.147
	LTE Band 12	10M	QPSK	25	12	-	Front	15mm	Ant 1	DSI 4	23095	707.5	22.82	23.80	1.253	-	-	-0.05	0.129	0.162
	LTE Band 12	10M	QPSK	25	12	-	Back	15mm	Ant 1	DSI 4	23095	707.5	22.82	23.80	1.253	-	-	-0.14	0.115	0.144
	LTE Band 12	10M	QPSK	1	25	-	Front	15mm	Ant 0	DSI 4	23095	707.5	22.81	23.00	1.045	-	-	-0.11	0.144	0.150
	LTE Band 12	10M	QPSK	1	25	-	Back	15mm	Ant 0	DSI 4	23095	707.5	22.81	23.00	1.045	-	-	0.06	0.180	0.188
	LTE Band 12	10M	QPSK	25	12	-	Front	15mm	Ant 0	DSI 4	23095	707.5	22.45	23.00	1.135	-	-	-0.13	0.150	0.170
63	LTE Band 12	10M	QPSK	25	12	-	Back	15mm	Ant 0	DSI 4	23095	707.5	22.45	23.00	1.135	-	-	-0.03	0.172	**0.195**
	LTE Band 13	10M	QPSK	1	25	-	Front	15mm	Ant 1	DSI 4	23230	782	23.81	24.60	1.199	-	-	-0.01	0.174	0.209
	LTE Band 13	10M	QPSK	1	25	-	Back	15mm	Ant 1	DSI 4	23230	782	23.81	24.60	1.199	-	-	0.01	0.155	0.186
	LTE Band 13	10M	QPSK	25	12	-	Front	15mm	Ant 1	DSI 4	23230	782	22.79	23.60	1.205	-	-	-0.07	0.142	0.171
	LTE Band 13	10M	QPSK	25	12	-	Back	15mm	Ant 1	DSI 4	23230	782	22.79	23.60	1.205	-	-	-0.07	0.122	0.147
	LTE Band 13	10M	QPSK	1	25	-	Front	15mm	Ant 0	DSI 4/9/14	23230	782	23.17	23.80	1.156	-	-	0.08	0.165	0.191
64	LTE Band 13	10M	QPSK	1	25	-	Back	15mm	Ant 0	DSI 4/9/14	23230	782	23.17	23.80	1.156	-	-	-0.14	0.192	**0.222**
	LTE Band 13	10M	QPSK	25	12	-	Front	15mm	Ant 0	DSI 4/9/14	23230	782	22.26	22.80	1.132	-	-	0.11	0.130	0.147
	LTE Band 13	10M	QPSK	25	12	-	Back	15mm	Ant 0	DSI 4/9/14	23230	782	22.26	22.80	1.132	-	-	0.18	0.156	0.177
	FR1 n71	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	DSI 4	136100	680.5	24.13	25.00	1.222	-	-	-0.1	0.154	0.188
	FR1 n71	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	DSI 4	136100	680.5	24.13	25.00	1.222	-	-	-0.15	0.144	0.176
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	DSI 4	136100	680.5	24.02	25.00	1.253	-	-	0.04	0.148	0.185
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	DSI 4	136100	680.5	24.02	25.00	1.253	-	-	-0.11	0.136	0.170
	FR1 n71	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4/9/14	136100	680.5	23.56	24.40	1.213	-	-	0.13	0.189	0.229
65	FR1 n71	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4/9/14	136100	680.5	23.56	24.40	1.213	-	-	-0.18	0.254	**0.308**
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	DSI 4/9/14	136100	680.5	23.51	24.40	1.227	-	-	-0.16	0.175	0.215
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	DSI 4/9/14	136100	680.5	23.51	24.40	1.227	-	-	0.14	0.230	0.282
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	DSI 4	141500	707.5	23.48	24.20	1.180	-	-	0.18	0.133	0.157
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	DSI 4	141500	707.5	23.48	24.20	1.180	-	-	-0.16	0.129	0.152
	FR1 n12	15M	QPSK	36	0	DFT-15	Front	15mm	Ant 1	DSI 4	141500	707.5	23.42	24.20	1.197	-	-	0.02	0.127	0.152
	FR1 n12	15M	QPSK	36	0	DFT-15	Back	15mm	Ant 1	DSI 4	141500	707.5	23.42	24.20	1.197	-	-	-0.09	0.120	0.144
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	141500	707.5	22.78	23.60	1.208	-	-	-0.1	0.148	0.179
66	FR1 n12	15M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	141500	707.5	22.78	23.60	1.208	-	-	-0.01	0.201	**0.243**
	FR1 n12	15M	QPSK	36	0	DFT-15	Front	15mm	Ant 0	DSI 4	141500	707.5	22.69	23.60	1.233	-	-	0.13	0.140	0.173
	FR1 n12	15M	QPSK	36	0	DFT-15	Back	15mm	Ant 0	DSI 4	141500	707.5	22.69	23.60	1.233	-	-	-0.03	0.195	0.240
835MHz																				
	GSM850	-	-	-	-	GPRS(1Tx slots)	Front	15mm	Ant 1	DSI 4	189	836.4	33.22	34.00	1.197	-	-	-0.11	0.124	0.148
	GSM850	-	-	-	-	GPRS(1Tx slots)	Back	15mm	Ant 1	DSI 4	189	836.4	33.22	34.00	1.197	-	-	-0.1	0.144	0.172
	GSM850	-	-	-	-	GPRS(1Tx slots)	Back	15mm	Ant 1	DSI 4	128	824.2	33.13	34.00	1.222	-	-	0.14	0.136	0.166
67	GSM850	-	-	-	-	GPRS(1Tx slots)	Back	15mm	Ant 1	DSI 4	251	848.8	33.18	34.00	1.208	-	-	0.09	0.178	**0.215**
	GSM850	-	-	-	-	DTM Multi-slot class 9	Back	15mm	Ant 1	DSI 4	251	848.8	23.70	24.48	1.197	-	-	0.02	0.161	0.193
	WCDMA V					RMC 12.2Kbps	Front	15mm	Ant 1	DSI 4/9/14	4182	836.4	24.58	24.80	1.052	-	-	-0.04	0.169	0.178
	WCDMA V					RMC 12.2Kbps	Back	15mm	Ant 1	DSI 4/9/14	4182	836.4	24.58	24.80	1.052	-	-	0.12	0.200	0.210

	WCDMA V					RMC 12.2Kbps	Back	15mm	Ant 1	DSI 4/9/14	4132	826.4	24.54	24.80	1.062	-	-	-0.03	0.171	0.182
	WCDMA V					RMC 12.2Kbps	Back	15mm	Ant 1	DSI 4/9/14	4233	846.6	24.45	24.80	1.084	-	-	0.13	0.230	0.249
	WCDMA V					RMC 12.2Kbps	Front	15mm	Ant 0	DSI 4/9/14	4182	836.4	23.53	23.80	1.064	-	-	-0.11	0.193	0.205
	WCDMA V					RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4/9/14	4182	836.4	23.53	23.80	1.064	-	-	0.07	0.227	0.242
68	WCDMA V					RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4/9/14	4132	826.4	23.44	23.80	1.086	-	-	-0.01	0.281	**0.305**
	WCDMA V					RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4/9/14	4233	846.6	23.41	23.80	1.094	-	-	-0.14	0.179	0.196
	LTE Band 26	15M	QPSK	1	37	-	Front	15mm	Ant 1	DSI 4	26865	831.5	23.98	24.80	1.208	-	-	-0.08	0.157	0.190
	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	Ant 1	DSI 4	26865	831.5	23.98	24.80	1.208	-	-	0.17	0.178	0.215
	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	Ant 1	DSI 4	26765	821.5	23.87	24.80	1.239	-	-	-0.01	0.152	0.188
	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	Ant 1	DSI 4	26965	841.5	23.93	24.80	1.222	-	-	-0.07	0.211	0.258
	LTE Band 26	15M	QPSK	36	20	-	Front	15mm	Ant 1	DSI 4	26865	831.5	22.93	23.80	1.222	-	-	0.16	0.124	0.152
	LTE Band 26	15M	QPSK	36	20	-	Back	15mm	Ant 1	DSI 4	26865	831.5	22.93	23.80	1.222	-	-	0.03	0.142	0.173
	LTE Band 26	15M	QPSK	1	37	-	Front	15mm	Ant 0	DSI 4	26865	831.5	23.37	24.00	1.156	-	-	0.11	0.211	0.244
69	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	Ant 0	DSI 4	26865	831.5	23.37	24.00	1.156	-	-	-0.07	0.288	**0.333**
	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	Ant 0	DSI 4	26765	821.5	23.31	24.00	1.172	-	-	0.04	0.235	0.275
	LTE Band 26	15M	QPSK	1	37	-	Back	15mm	Ant 0	DSI 4	26965	841.5	23.31	24.00	1.172	-	-	0.08	0.211	0.247
	LTE Band 26	15M	QPSK	36	20	-	Front	15mm	Ant 0	DSI 4	26865	831.5	22.42	23.00	1.143	-	-	0.05	0.165	0.189
	LTE Band 26	15M	QPSK	36	20	-	Back	15mm	Ant 0	DSI 4	26865	831.5	22.42	23.00	1.143	-	-	0.16	0.230	0.263
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	DSI 4	167300	836.5	24.24	24.70	1.112	-	-	0.03	0.129	0.143
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	DSI 4	167300	836.5	24.24	24.70	1.112	-	-	0.1	0.170	0.189
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	DSI 4	167300	836.5	24.10	24.70	1.148	-	-	-0.01	0.136	0.156
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	DSI 4	167300	836.5	24.10	24.70	1.148	-	-	0.18	0.178	0.204
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	167300	836.5	22.90	23.60	1.175	-	-	0.18	0.156	0.183
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	167300	836.5	22.90	23.60	1.175	-	-	0.18	0.228	0.268
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	DSI 4	167300	836.5	22.81	23.60	1.199	-	-	0.06	0.162	0.194
70	FR1 n5	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	DSI 4	167300	836.5	22.81	23.60	1.199	-	-	-0.13	0.238	**0.285**
1750MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 4	1413	1732.6	20.53	20.90	1.089	-	-	0.07	0.105	0.114
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	1413	1732.6	20.53	20.90	1.089	-	-	-0.09	0.117	0.127
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	1312	1712.4	20.47	20.90	1.104	-	-	-0.04	0.088	0.097
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	1513	1752.6	20.48	20.90	1.102	-	-	-0.05	0.141	0.155
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	DSI 4	1413	1732.6	19.31	19.80	1.119	-	-	0.01	0.140	0.157
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	1413	1732.6	19.31	19.80	1.119	-	-	-0.17	0.165	0.185
71	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	1312	1712.4	19.20	19.80	1.148	-	-	-0.04	0.192	**0.220**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	1513	1752.6	19.29	19.80	1.125	-	-	-0.11	0.149	0.168
	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 0	DSI 4	132322	1745	19.50	19.90	1.096	-	-	-0.07	0.057	0.062
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	132322	1745	19.50	19.90	1.096	-	-	-0.07	0.112	0.123
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	132072	1720	19.45	19.90	1.109	-	-	0.13	0.090	0.100
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	132572	1770	19.45	19.90	1.109	-	-	-0.14	0.127	0.141
	LTE Band 66C	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	132572+ 132374	1770+ 1750.2	19.32	19.90	1.143	-	-	0.03	0.123	0.141
	LTE Band 66	20M	QPSK	50	24	-	Front	15mm	Ant 0	DSI 4	132322	1745	19.45	19.90	1.109	-	-	0.17	0.056	0.062
	LTE Band 66	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4	132322	1745	19.45	19.90	1.109	-	-	0.17	0.110	0.122
	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 5	DSI 4	132322	1745	19.51	20.30	1.199	-	-	-0.07	0.132	0.158
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	132322	1745	19.51	20.30	1.199	-	-	-0.01	0.144	0.173
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	132072	1720	19.44	20.30	1.219	-	-	-0.06	0.154	0.188
	LTE Band 66C	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	132072+ 132270	1720+ 1739.8	19.43	20.30	1.222	-	-	0.04	0.142	0.173
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	132572	1770	19.48	20.30	1.208	-	-	-0.13	0.137	0.165
	LTE Band 66	20M	QPSK	50	24	-	Front	15mm	Ant 5	DSI 4	132322	1745	19.47	20.30	1.211	-	-	-0.15	0.134	0.162
	LTE Band 66	20M	QPSK	50	24	-	Back	15mm	Ant 5	DSI 4	132322	1745	19.47	20.30	1.211	-	-	0.11	0.141	0.171
	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 6	DSI 4	132322	1745	18.45	19.30	1.216	-	-	0.03	0.101	0.123
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	132322	1745	18.45	19.30	1.216	-	-	-0.09	0.163	0.198
72	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	132072	1720	18.20	19.30	1.288	-	-	-0.02	0.187	**0.241**
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	132572	1770	18.33	19.30	1.250	-	-	-0.18	0.160	0.200
	LTE Band 66	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	132322	1745	18.40	19.30	1.230	-	-	-0.17	0.099	0.122
	LTE Band 66	20M	QPSK	50	24	-	Back	15mm	Ant 6	DSI 4	132322	1745	18.40	19.30	1.230	-	-	0	0.159	0.196

	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 7	DSI 4	132322	1745	21.35	21.60	1.059	-	-	0.06	0.094	0.100
	LTE Band 66	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	132322	1745	21.35	21.60	1.059	-	-	-0.1	0.063	0.067
	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 7	DSI 4	132072	1720	21.30	21.60	1.072	-	-	0.04	0.108	0.116
	LTE Band 66	20M	QPSK	1	49	-	Front	15mm	Ant 7	DSI 4	132572	1770	21.29	21.60	1.074	-	-	0.16	0.088	0.095
	LTE Band 66	20M	QPSK	50	24	-	Front	15mm	Ant 7	DSI 4	132322	1745	21.33	21.60	1.064	-	-	0.08	0.091	0.097
	LTE Band 66	20M	QPSK	50	24	-	Back	15mm	Ant 7	DSI 4	132322	1745	21.33	21.60	1.064	-	-	0.13	0.061	0.065
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	349000	1745	19.77	20.30	1.130	-	-	-0.04	0.056	0.063
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	349000	1745	19.77	20.30	1.130	-	-	-0.17	0.166	0.188
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 0	DSI 4	349000	1745	19.67	20.30	1.156	-	-	-0.06	0.061	0.071
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 0	DSI 4	349000	1745	19.67	20.30	1.156	-	-	-0.12	0.171	0.198
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	DSI 4	349000	1745	19.09	19.70	1.151	-	-	-0.04	0.114	0.131
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	DSI 4	349000	1745	19.09	19.70	1.151	-	-	0.1	0.136	0.157
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	DSI 4	349000	1745	19.00	19.70	1.175	-	-	0.07	0.109	0.128
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	DSI 4	349000	1745	19.00	19.70	1.175	-	-	0.12	0.128	0.150
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	DSI 4	349000	1745	18.47	19.70	1.327	-	-	0.07	0.123	0.163
73	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	DSI 4	349000	1745	18.47	19.70	1.327	-	-	0.14	0.195	**0.259**
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 6	DSI 4	349000	1745	18.41	19.70	1.346	-	-	0.09	0.109	0.147
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 6	DSI 4	349000	1745	18.41	19.70	1.346	-	-	-0.17	0.178	0.240
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 7	DSI 4	349000	1745	22.23	23.00	1.194	-	-	-0.06	0.133	0.159
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 7	DSI 4	349000	1745	22.23	23.00	1.194	-	-	0.17	0.113	0.135
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 7	DSI 4	349000	1745	22.13	23.00	1.222	-	-	-0.08	0.132	0.161
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 7	DSI 4	349000	1745	22.13	23.00	1.222	-	-	0.12	0.107	0.131
1900MHz																				
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Front	15mm	Ant 5	DSI 4	661	1880	30.22	31.00	1.197	-	-	-0.04	0.124	0.148
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Back	15mm	Ant 5	DSI 4	661	1880	30.22	31.00	1.197	-	-	-0.05	0.162	0.194
	GSM1900	-	-	-	-	GPRS(1Tx slots)	Back	15mm	Ant 5	DSI 4	512	1850.2	30.07	31.00	1.239	-	-	0.01	0.140	0.173
74	GSM1900	-	-	-	-	GPRS(1Tx slots)	Back	15mm	Ant 5	DSI 4	810	1909.8	30.16	31.00	1.213	-	-	0.06	0.179	**0.217**
	GSM1900	-	-	-	-	DTM Multi-slot class 9	Back	15mm	Ant 5	DSI 4	810	1909.8	20.58	21.28	1.175	-	-	0.06	0.163	0.192
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	DSI 4	9400	1880	21.55	21.90	1.084	-	-	0.05	0.082	0.089
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	9400	1880	21.55	21.90	1.084	-	-	0	0.147	0.159
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	9262	1852.4	21.54	21.90	1.086	-	-	-0.04	0.131	0.142
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	DSI 4	9538	1907.6	21.53	21.90	1.089	-	-	-0.17	0.152	0.166
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	DSI 4	9400	1880	19.21	19.80	1.146	-	-	0.18	0.116	0.133
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	9400	1880	19.21	19.80	1.146	-	-	0.12	0.142	0.163
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	9262	1852.4	19.12	19.80	1.169	-	-	-0.14	0.139	0.163
75	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	DSI 4	9538	1907.6	19.09	19.80	1.178	-	-	0.06	0.165	**0.194**
	LTE Band 25	20M	QPSK	1	49	-	Front	15mm	Ant 0	DSI 4	26340	1880	21.28	21.90	1.153	-	-	-0.1	0.111	0.128
	LTE Band 25	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	26340	1880	21.28	21.90	1.153	-	-	-0.1	0.225	0.260
76	LTE Band 25	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	26140	1860	21.25	21.90	1.161	-	-	0.01	0.266	**0.309**
	LTE Band 25	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	26590	1905	21.24	21.90	1.164	-	-	0.12	0.186	0.217
	LTE Band 25	20M	QPSK	50	24	-	Front	15mm	Ant 0	DSI 4	26340	1880	21.22	21.90	1.169	-	-	-0.07	0.108	0.126
	LTE Band 25	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4	26340	1880	21.22	21.90	1.169	-	-	0.17	0.224	0.262
	LTE Band 25	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4	26140	1860	21.18	21.90	1.180	-	-	-0.18	0.253	0.299
	LTE Band 25	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4	26590	1905	21.21	21.90	1.172	-	-	-0.12	0.185	0.217
	LTE Band 25	20M	QPSK	1	49	-	Front	15mm	Ant 5	DSI 4	26340	1880	18.39	19.30	1.233	-	-	0.11	0.099	0.122
	LTE Band 25	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	26340	1880	18.39	19.30	1.233	-	-	0.04	0.121	0.149
	LTE Band 25	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	26140	1860	18.27	19.30	1.268	-	-	0.1	0.136	0.172
	LTE Band 25	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	26590	1905	18.28	19.30	1.265	-	-	0.14	0.118	0.149
	LTE Band 25	20M	QPSK	50	24	-	Front	15mm	Ant 5	DSI 4	26340	1880	18.33	19.30	1.250	-	-	0.04	0.100	0.125
	LTE Band 25	20M	QPSK	50	24	-	Back	15mm	Ant 5	DSI 4	26340	1880	18.33	19.30	1.250	-	-	-0.09	0.117	0.146
	LTE Band 25	20M	QPSK	50	24	-	Back	15mm	Ant 5	DSI 4	26140	1860	18.18	19.30	1.294	-	-	-0.15	0.124	0.160
	LTE Band 25	20M	QPSK	50	24	-	Back	15mm	Ant 5	DSI 4	26590	1905	18.25	19.30	1.274	-	-	-0.12	0.114	0.145
	FR1 n25	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	376500	1882.5	20.24	20.80	1.138	-	-	-0.1	0.052	0.059
	FR1 n25	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	376500	1882.5	20.24	20.80	1.138	-	-	0.08	0.114	0.130

	FR1 n25	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 0	DSI 4	376500	1882.5	20.19	20.80	1.151	-	-	-0.08	0.046	0.053
	FR1 n25	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 0	DSI 4	376500	1882.5	20.19	20.80	1.151	-	-	-0.12	0.102	0.117
	FR1 n25	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	DSI 4	376500	1882.5	19.17	19.70	1.130	-	-	0.11	0.115	0.130
77	FR1 n25	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	DSI 4	376500	1882.5	19.17	19.70	1.130	-	-	-0.08	0.151	**0.171**
	FR1 n25	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	DSI 4	376500	1882.5	19.05	19.70	1.161	-	-	-0.03	0.118	0.137
	FR1 n25	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	DSI 4	376500	1882.5	19.05	19.70	1.161	-	-	0.05	0.143	0.166
2300MHz																				
	LTE Band 30	10M	QPSK	1	25	-	Front	15mm	Ant 0	DSI 4	27710	2310	21.47	21.90	1.104	-	-	-0.08	0.154	0.170
78	LTE Band 30	10M	QPSK	1	25	-	Back	15mm	Ant 0	DSI 4	27710	2310	21.47	21.90	1.104	-	-	-0.07	0.312	**0.344**
	LTE Band 30	10M	QPSK	25	12	-	Front	15mm	Ant 0	DSI 4	27710	2310	21.37	21.90	1.130	-	-	0.08	0.140	0.158
	LTE Band 30	10M	QPSK	25	12	-	Back	15mm	Ant 0	DSI 4	27710	2310	21.37	21.90	1.130	-	-	-0.08	0.291	0.329
	LTE Band 30	10M	QPSK	1	25	-	Front	15mm	Ant 5	DSI 4/9/14	27710	2310	19.80	20.30	1.122	-	-	0.16	0.184	0.206
	LTE Band 30	10M	QPSK	1	25	-	Back	15mm	Ant 5	DSI 4/9/14	27710	2310	19.80	20.30	1.122	-	-	-0.14	0.186	0.209
	LTE Band 30	10M	QPSK	25	12	-	Front	15mm	Ant 5	DSI 4/9/14	27710	2310	19.62	20.30	1.169	-	-	-0.09	0.171	0.200
	LTE Band 30	10M	QPSK	25	12	-	Back	15mm	Ant 5	DSI 4/9/14	27710	2310	19.62	20.30	1.169	-	-	0.04	0.174	0.203
	FR1 n30	10M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	462000	2310	19.10	19.80	1.175	-	-	0	0.019	0.022
	FR1 n30	10M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	462000	2310	19.10	19.80	1.175	-	-	-0.07	0.040	0.047
	FR1 n30	10M	QPSK	25	14	DFT-15	Front	15mm	Ant 0	DSI 4	462000	2310	19.03	19.80	1.194	-	-	0.05	0.017	0.020
	FR1 n30	10M	QPSK	25	14	DFT-15	Back	15mm	Ant 0	DSI 4	462000	2310	19.03	19.80	1.194	-	-	0.07	0.035	0.042
	FR1 n30	10M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	DSI 4	462000	2310	16.76	17.70	1.242	-	-	0.14	0.049	0.061
79	FR1 n30	10M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	DSI 4	462000	2310	16.76	17.70	1.242	-	-	0.05	0.050	**0.062**
	FR1 n30	10M	QPSK	25	14	DFT-15	Front	15mm	Ant 5	DSI 4	462000	2310	16.69	17.70	1.262	-	-	-0.13	0.043	0.054
	FR1 n30	10M	QPSK	25	14	DFT-15	Back	15mm	Ant 5	DSI 4	462000	2310	16.69	17.70	1.262	-	-	0.02	0.048	0.061
2600MHz																				
	LTE Band 7	20M	QPSK	1	49	-	Front	15mm	Ant 0	DSI 4	21100	2535	22.65	22.90	1.059	-	-	0.06	0.126	0.133
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	21100	2535	22.65	22.90	1.059	-	-	-0.08	0.235	0.249
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	20850	2510	22.58	22.90	1.076	-	-	-0.06	0.216	0.233
80	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	21350	2560	22.60	22.90	1.072	-	-	-0.06	0.271	**0.290**
	LTE Band 7C	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	21350+ 21152	2560+ 2540.2	22.47	22.90	1.104	-	-	-0.03	0.260	0.287
	LTE Band 7	20M	QPSK	50	24	-	Front	15mm	Ant 0	DSI 4	21100	2535	22.64	22.90	1.062	-	-	-0.01	0.124	0.132
	LTE Band 7	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4	21100	2535	22.64	22.90	1.062	-	-	-0.01	0.228	0.242
	LTE Band 7	20M	QPSK	1	49	-	Front	15mm	Ant 5	DSI 4	21100	2535	20.23	20.80	1.140	-	-	-0.09	0.144	0.164
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	21100	2535	20.23	20.80	1.140	-	-	-0.02	0.165	0.188
	LTE Band 7C	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	21100+ 21298	2535+ 2554.8	20.02	20.80	1.197	-	-	-0.09	0.151	0.181
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	20850	2510	20.15	20.80	1.161	-	-	0.08	0.153	0.178
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	21350	2560	20.15	20.80	1.161	-	-	0.02	0.160	0.186
	LTE Band 7	20M	QPSK	50	24	-	Front	15mm	Ant 5	DSI 4	21100	2535	20.22	20.80	1.143	-	-	-0.15	0.141	0.161
	LTE Band 7	20M	QPSK	50	24	-	Back	15mm	Ant 5	DSI 4	21100	2535	20.22	20.80	1.143	-	-	-0.1	0.160	0.183
	LTE Band 7	20M	QPSK	1	49	-	Front	15mm	Ant 6	DSI 4	21100	2535	21.35	21.80	1.109	-	-	0.04	0.185	0.205
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	21100	2535	21.35	21.80	1.109	-	-	-0.13	0.225	0.250
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	20850	2510	21.32	21.80	1.117	-	-	-0.11	0.199	0.222
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	21350	2560	21.25	21.80	1.135	-	-	0.18	0.218	0.247
	LTE Band 7	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	21100	2535	21.28	21.80	1.127	-	-	-0.1	0.190	0.214
	LTE Band 7	20M	QPSK	50	24	-	Back	15mm	Ant 6	DSI 4	21100	2535	21.28	21.80	1.127	-	-	0.13	0.220	0.248
	LTE Band 7	20M	QPSK	1	49	-	Front	15mm	Ant 7	DSI 4/9/14	21100	2535	20.33	20.60	1.064	-	-	-0.09	0.099	0.105
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4/9/14	21100	2535	20.33	20.60	1.064	-	-	-0.12	0.254	0.270
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4/9/14	20850	2510	20.30	20.60	1.072	-	-	0.04	0.226	0.242
	LTE Band 7	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4/9/14	21350	2560	20.26	20.60	1.081	-	-	0.06	0.216	0.234
	LTE Band 7	20M	QPSK	50	24	-	Front	15mm	Ant 7	DSI 4/9/14	21100	2535	20.22	20.60	1.091	-	-	0.03	0.090	0.098
	LTE Band 7	20M	QPSK	50	24	-	Back	15mm	Ant 7	DSI 4/9/14	21100	2535	20.22	20.60	1.091	-	-	0.12	0.215	0.235
	LTE Band 38	20M	QPSK	1	49	-	Front	15mm	Ant 0	DSI 4/9/14	38000	2595	24.09	24.40	1.074	62.9	1.006	-0.15	0.121	0.131
81	LTE Band 38	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4/9/14	38000	2595	24.09	24.40	1.074	62.9	1.006	0.08	0.232	**0.251**
	LTE Band 38	20M	QPSK	50	24	-	Front	15mm	Ant 0	DSI 4/9/14	38000	2595	23.10	23.40	1.072	62.9	1.006	-0.05	0.095	0.102
	LTE Band 38	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4/9/14	38000	2595	23.10	23.40	1.072	62.9	1.006	0.17	0.198	0.213
	LTE Band 38	20M	QPSK	1	49	-	Front	15mm	Ant 5	DSI 4	38000	2595	22.18	22.80	1.153	62.9	1.006	-0.17	0.128	0.149

	LTE Band 38	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	38000	2595	22.18	22.80	1.153	62.9	1.006	0.1	0.175	0.203
	LTE Band 38	20M	QPSK	50	24	-	Front	15mm	Ant 5	DSI 4	38000	2595	22.11	22.80	1.172	62.9	1.006	-0.06	0.126	0.149
	LTE Band 38	20M	QPSK	50	24	-	Back	15mm	Ant 5	DSI 4	38000	2595	22.11	22.80	1.172	62.9	1.006	0.14	0.166	0.196
	LTE Band 41	20M	QPSK	1	49	-	Front	15mm	Ant 0	DSI 4	40620	2593	23.50	23.80	1.072	62.9	1.006	0.18	0.116	0.125
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	40620	2593	23.50	23.80	1.072	62.9	1.006	-0.03	0.199	0.215
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	39750	2506	23.42	23.80	1.091	62.9	1.006	0.08	0.167	0.183
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	40185	2549.5	23.47	23.80	1.079	62.9	1.006	-0.02	0.200	0.217
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	41055	2636.5	23.47	23.80	1.079	62.9	1.006	-0.13	0.222	0.241
	LTE Band 41C	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	41055+ 41253	2636.5+ 2656.3	23.43	23.80	1.089	62.9	1.006	0.03	0.203	0.222
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	41490	2680	23.48	23.80	1.076	62.9	1.006	0	0.183	0.198
82	LTE Band 41 PC2	20M	QPSK	1	49	-	Back	15mm	Ant 0	DSI 4	41055	2636.5	25.37	25.80	1.104	42.9	1.009	0.14	0.232	**0.258**
	LTE Band 41	20M	QPSK	50	24	-	Front	15mm	Ant 0	DSI 4	40620	2593	22.53	22.80	1.064	62.9	1.006	-0.02	0.090	0.096
	LTE Band 41	20M	QPSK	50	24	-	Back	15mm	Ant 0	DSI 4	40620	2593	22.53	22.80	1.064	62.9	1.006	-0.06	0.158	0.169
	LTE Band 41	20M	QPSK	1	49	-	Front	15mm	Ant 5	DSI 4	40620	2593	21.20	21.80	1.148	62.9	1.006	-0.12	0.109	0.126
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	40620	2593	21.20	21.80	1.148	62.9	1.006	-0.07	0.123	0.142
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	39790	2510	21.15	21.80	1.161	62.9	1.006	0.14	0.131	0.153
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	40185	2549.5	21.08	21.80	1.180	62.9	1.006	0.04	0.157	0.186
	LTE Band 41C	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	40185+ 40383	2549.5+ 2569.3	21.14	21.80	1.164	62.9	1.006	0.04	0.146	0.171
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	41055	2636.5	21.03	21.80	1.194	62.9	1.006	0.18	0.125	0.150
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	41490	2680	21.10	21.80	1.175	62.9	1.006	0.04	0.127	0.150
	LTE Band 41 PC2	20M	QPSK	1	49	-	Back	15mm	Ant 5	DSI 4	40185	2549.5	22.65	23.40	1.189	42.9	1.009	-0.14	0.159	0.191
	LTE Band 41	20M	QPSK	50	24	-	Front	15mm	Ant 5	DSI 4	40620	2593	21.15	21.80	1.161	62.9	1.006	-0.08	0.102	0.119
	LTE Band 41	20M	QPSK	50	24	-	Back	15mm	Ant 5	DSI 4	40620	2593	21.15	21.80	1.161	62.9	1.006	0.08	0.118	0.138
	LTE Band 41	20M	QPSK	1	49	-	Front	15mm	Ant 6	DSI 4	40620	2593	22.33	22.80	1.114	62.9	1.006	-0.07	0.114	0.128
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	40620	2593	22.33	22.80	1.114	62.9	1.006	0.03	0.155	0.174
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	39750	2506	22.20	22.80	1.148	62.9	1.006	0.07	0.152	0.176
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	40185	2549.5	22.30	22.80	1.122	62.9	1.006	-0.11	0.186	0.210
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	41055	2636.5	22.28	22.80	1.127	62.9	1.006	0.16	0.113	0.128
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	41490	2680	22.22	22.80	1.143	62.9	1.006	-0.09	0.100	0.115
	LTE Band 41 PC2	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	40185	2549.5	23.89	24.40	1.125	42.9	1.009	-0.05	0.180	0.204
	LTE Band 41	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	40620	2593	22.00	22.80	1.202	62.9	1.006	-0.02	0.109	0.132
	LTE Band 41	20M	QPSK	50	24	-	Back	15mm	Ant 6	DSI 4	40620	2593	22.00	22.80	1.202	62.9	1.006	0.14	0.142	0.172
	LTE Band 41	20M	QPSK	1	49	-	Front	15mm	Ant 7	DSI 4	40620	2593	23.78	24.00	1.052	62.9	1.006	0.02	0.078	0.083
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	40620	2593	23.78	24.00	1.052	62.9	1.006	0	0.171	0.181
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	39750	2506	23.75	24.00	1.059	62.9	1.006	0	0.187	0.199
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	40185	2549.5	23.67	24.00	1.079	62.9	1.006	0.13	0.220	0.239
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	41055	2636.5	23.77	24.00	1.054	62.9	1.006	0.13	0.147	0.156
	LTE Band 41	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	41490	2680	23.69	24.00	1.074	62.9	1.006	0.07	0.122	0.132
	LTE Band 41 PC2	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	40185	2549.5	24.48	24.60	1.028	42.9	1.009	-0.16	0.176	0.183
	LTE Band 41	20M	QPSK	50	24	-	Front	15mm	Ant 7	DSI 4	40620	2593	22.96	23.00	1.009	62.9	1.006	0.1	0.061	0.062
	LTE Band 41	20M	QPSK	50	24	-	Back	15mm	Ant 7	DSI 4	40620	2593	22.96	23.00	1.009	62.9	1.006	-0.13	0.139	0.141
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	DSI 4	507000	2535	21.21	22.30	1.285	-	-	-0.09	0.118	0.152
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	DSI 4	507000	2535	21.21	22.30	1.285	-	-	-0.17	0.217	0.279
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 0	DSI 4	507000	2535	21.15	22.30	1.303	-	-	0.16	0.119	0.155
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 0	DSI 4	507000	2535	21.15	22.30	1.303	-	-	-0.08	0.210	0.274
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	DSI 4	507000	2535	19.01	20.20	1.315	-	-	0.12	0.120	0.158
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	DSI 4	507000	2535	19.01	20.20	1.315	-	-	-0.03	0.143	0.188
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	DSI 4	507000	2535	18.92	20.20	1.343	-	-	0.16	0.115	0.154
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	DSI 4	507000	2535	18.92	20.20	1.343	-	-	-0.02	0.135	0.181
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	DSI 4	507000	2535	22.21	23.20	1.256	-	-	0.08	0.224	0.281
83	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	DSI 4	507000	2535	22.21	23.20	1.256	-	-	0.15	0.306	**0.384**
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 6	DSI 4	507000	2535	22.17	23.20	1.268	-	-	0.07	0.210	0.266
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 6	DSI 4	507000	2535	22.17	23.20	1.268	-	-	-0.15	0.294	0.373
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 7	DSI 4	507000	2535	19.52	20.50	1.253	-	-	0.07	0.127	0.159
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 7	DSI 4	507000	2535	19.52	20.50	1.253	-	-	0.17	0.301	0.377

	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 7	DSI 4	507000	2535	19.46	20.50	1.271	-	-	-0.12	0.122	0.155
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 7	DSI 4	507000	2535	19.46	20.50	1.271	-	-	-0.14	0.289	0.367
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	DSI 4	519000	2595	20.81	21.80	1.256	-	-	0.05	0.190	0.239
84	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	DSI 4	519000	2595	20.81	21.80	1.256	-	-	0.04	0.384	**0.482**
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 0	DSI 4	519000	2595	20.71	21.80	1.285	-	-	0.1	0.184	0.236
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 0	DSI 4	519000	2595	20.71	21.80	1.285	-	-	-0.05	0.368	0.473
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	DSI 4	518598	2592.99	20.89	21.70	1.205	-	-	-0.13	0.104	0.125
85	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	DSI 4	518598	2592.99	20.89	21.70	1.205	-	-	0.07	0.219	**0.264**
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	DSI 4	518598	2592.99	20.88	21.70	1.208	-	-	0.09	0.102	0.123
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	DSI 4	518598	2592.99	20.88	21.70	1.208	-	-	0	0.200	0.242
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	DSI 4	518598	2592.99	17.53	18.20	1.167	-	-	0.15	0.075	0.088
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	DSI 4	518598	2592.99	17.53	18.20	1.167	-	-	-0.02	0.095	0.110
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	DSI 4	518598	2592.99	17.49	18.20	1.178	-	-	-0.02	0.066	0.078
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	DSI 4	518598	2592.99	17.49	18.20	1.178	-	-	-0.09	0.083	0.098
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	DSI 4	518598	2592.99	21.86	22.20	1.081	-	-	-0.13	0.171	0.185
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 4	518598	2592.99	21.86	22.20	1.081	-	-	0.01	0.238	0.257
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	DSI 4	518598	2592.99	21.84	22.20	1.086	-	-	-0.1	0.162	0.176
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	DSI 4	518598	2592.99	21.84	22.20	1.086	-	-	0.12	0.229	0.249
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	DSI 4	518598	2592.99	20.80	21.60	1.202	-	-	0.12	0.081	0.097
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	DSI 4	518598	2592.99	20.80	21.60	1.202	-	-	0.09	0.207	0.249
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	DSI 4	518598	2592.99	20.63	21.60	1.250	-	-	-0.08	0.078	0.098
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	DSI 4	518598	2592.99	20.63	21.60	1.250	-	-	0.04	0.192	0.240
									3000-4000MHz											
	LTE Band 48	20M	QPSK	1	49	-	Front	15mm	Ant 6	DSI 4	55830	3609	18.55	19.30	1.189	62.9	1.006	0.07	0.096	0.115
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 6	DSI 4	55830	3609	18.55	19.30	1.189	62.9	1.006	0.15	0.094	0.112
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	55830	3609	18.49	19.30	1.205	62.9	1.006	-0.06	0.102	0.124
	LTE Band 48	20M	QPSK	50	24	-	Back	15mm	Ant 6	DSI 4	55830	3609	18.49	19.30	1.205	62.9	1.006	-0.13	0.100	0.121
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	55340	3560	18.39	19.30	1.233	62.9	1.006	0.03	0.136	0.169
	LTE Band 48C	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	55340+ 55538	3560+ 3579.8	18.30	19.30	1.259	62.9	1.006	0.04	0.093	0.118
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	56150	3641	18.34	19.30	1.247	62.9	1.006	0.07	0.084	0.105
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 6	DSI 4	56640	3690	18.48	19.30	1.208	62.9	1.006	0.05	0.081	0.098
	LTE Band 48	20M	QPSK	1	49	-	Front	15mm	Ant 14	DSI 4	55830	3609	19.19	19.80	1.151	62.9	1.006	-0.05	0.190	0.220
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 4	55830	3609	19.19	19.80	1.151	62.9	1.006	0.15	0.349	0.404
86	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 4	55340	3560	19.10	19.80	1.175	62.9	1.006	-0.02	0.411	**0.486**
	LTE Band 48C	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 4	55340+ 55538	3560+ 3579.8	19.14	19.80	1.164	62.9	1.006	0.08	0.101	0.118
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 4	56150	3641	19.11	19.80	1.172	62.9	1.006	0.12	0.325	0.383
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 14	DSI 4	56640	3690	19.10	19.80	1.175	62.9	1.006	-0.17	0.290	0.343
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 14	DSI 4	55830	3609	19.17	19.80	1.156	62.9	1.006	-0.09	0.175	0.204
	LTE Band 48	20M	QPSK	50	24	-	Back	15mm	Ant 14	DSI 4	55830	3609	19.17	19.80	1.156	62.9	1.006	-0.06	0.332	0.386
	LTE Band 48	20M	QPSK	1	49	-	Front	15mm	Ant 12	DSI 4	55830	3609	21.25	21.80	1.135	62.9	1.006	0.03	0.132	0.151
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 12	DSI 4	55830	3609	21.25	21.80	1.135	62.9	1.006	0.05	0.095	0.108
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 12	DSI 4	55830	3609	21.21	21.80	1.146	62.9	1.006	-0.13	0.146	0.168
	LTE Band 48	20M	QPSK	50	24	-	Back	15mm	Ant 12	DSI 4	55830	3609	21.21	21.80	1.146	62.9	1.006	-0.02	0.090	0.104
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 12	DSI 4	55340	3560	21.06	21.80	1.186	62.9	1.006	0.06	0.151	0.180
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 12	DSI 4	56150	3641	21.19	21.80	1.151	62.9	1.006	0.09	0.125	0.145
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 12	DSI 4	56640	3690	21.12	21.80	1.169	62.9	1.006	-0.09	0.113	0.133
	LTE Band 48	20M	QPSK	1	49	-	Front	15mm	Ant 7	DSI 4	55830	3609	24.27	24.80	1.130	62.9	1.006	-0.17	0.042	0.048
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	55830	3609	24.27	24.80	1.130	62.9	1.006	0.18	0.067	0.076
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	55340	3560	24.19	24.80	1.151	62.9	1.006	-0.14	0.071	0.082
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	56150	3641	24.26	24.80	1.132	62.9	1.006	0.05	0.067	0.076
	LTE Band 48	20M	QPSK	1	49	-	Back	15mm	Ant 7	DSI 4	56640	3690	24.22	24.80	1.143	62.9	1.006	-0.02	0.090	0.103
	LTE Band 48	20M	QPSK	50	24	-	Front	15mm	Ant 7	DSI 4	55830	3609	23.25	23.80	1.135	62.9	1.006	0.05	0.041	0.047
	LTE Band 48	20M	QPSK	50	24	-	Back	15mm	Ant 7	DSI 4	55830	3609	23.25	23.80	1.135	62.9	1.006	0.05	0.064	0.073
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	DSI 4	633332	3499.98	20.51	21.20	1.172	-	-	-0.18	0.300	0.352
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 4	633332	3499.98	20.51	21.20	1.172	-	-	0.14	0.290	0.340

	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	DSI 4	633332	3499.98	20.45	21.20	1.189	-	-	0.12	0.254	0.302
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	DSI 4	633332	3499.98	20.45	21.20	1.189	-	-	0.1	0.242	0.288
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	DSI 4	656000	3840	20.31	21.20	1.227	-	-	-0.14	0.124	0.152
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	DSI 4	656000	3840	20.31	21.20	1.227	-	-	-0.12	0.082	0.101
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	DSI 4	656000	3840	20.25	21.20	1.245	-	-	0.15	0.111	0.138
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	DSI 4	656000	3840	20.25	21.20	1.245	-	-	0.03	0.085	0.106
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 14	DSI 4	633332	3499.98	17.68	18.20	1.127	-	-	-0.06	0.130	0.147
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 14	DSI 4	633332	3499.98	17.68	18.20	1.127	-	-	-0.14	0.236	0.266
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 14	DSI 4	633332	3499.98	17.62	18.20	1.143	-	-	0.06	0.107	0.122
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 14	DSI 4	633332	3499.98	17.62	18.20	1.143	-	-	0.11	0.196	0.224
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 14	DSI 4	656000	3840	17.47	18.20	1.183	-	-	-0.08	0.052	0.062
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 14	DSI 4	656000	3840	17.47	18.20	1.183	-	-	0.06	0.098	0.116
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 14	DSI 4	656000	3840	17.47	18.20	1.183	-	-	-0.01	0.049	0.058
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 14	DSI 4	656000	3840	17.47	18.20	1.183	-	-	0.01	0.085	0.101
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	DSI 4	633332	3499.98	23.67	24.20	1.130	-	-	0.15	0.484	0.547
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	DSI 4	633332	3499.98	23.67	24.20	1.130	-	-	-0.12	0.352	0.398
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	DSI 4	633332	3499.98	23.61	24.20	1.146	-	-	0.16	0.450	0.515
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	DSI 4	633332	3499.98	23.61	24.20	1.146	-	-	-0.08	0.338	0.387
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 12	DSI 4	656000	3840	23.22	24.20	1.253	-	-	0.12	0.210	0.263
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 12	DSI 4	656000	3840	23.22	24.20	1.253	-	-	0.11	0.189	0.237
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 12	DSI 4	656000	3840	23.16	24.20	1.271	-	-	0.03	0.213	0.271
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 12	DSI 4	656000	3840	23.16	24.20	1.271	-	-	0.11	0.178	0.226
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	DSI 4	633332	3499.98	21.51	22.70	1.315	-	-	-0.08	0.113	0.149
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	DSI 4	633332	3499.98	21.51	22.70	1.315	-	-	0.04	0.318	0.418
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	DSI 4	633332	3499.98	21.45	22.70	1.334	-	-	-0.14	0.124	0.165
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	DSI 4	633332	3499.98	21.45	22.70	1.334	-	-	-0.05	0.332	0.443
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	DSI 4	656000	3840	21.48	22.70	1.324	-	-	-	n/a	n/a
87	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	DSI 4	656000	3840	21.48	22.70	1.324	-	-	0.15	0.704	**0.932**
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	DSI 9/14	656000	3840	18.93	19.70	1.194	-	-	0.03	0.385	0.460
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	DSI 4	656000	3840	21.45	22.70	1.334	-	-	-	n/a	n/a
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	DSI 4	656000	3840	21.45	22.70	1.334	-	-	-0.14	0.639	0.852
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	15mm	Ant 7	DSI 4	656000	3840	21.39	22.70	1.352	-	-	0.08	0.619	0.837

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
WLAN2.4GHz																
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	0.08	0.085	0.139
88	Bluetooth	DH5 1Mbps	Back	15mm	Ant 12	Power Level 11	0	2402	17.00	18.00	1.259	76.87	1.301	0.1	0.105	**0.172**
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 12	Power Level 11	39	2441	16.80	18.00	1.318	76.87	1.301	0.11	0.087	0.149
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 12	Power Level 11	78	2480	16.10	18.00	1.549	76.87	1.301	0.15	0.081	0.163
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 12	Power Level 10	0	2402	13.60	14.50	1.230	76.87	1.301	0.1	0.042	0.067
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 12	Power Level 9	0	2402	7.90	9.00	1.288	76.87	1.301	-0.03	0.018	0.030
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	0.14	0.000	0.000
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power Level 11	39	2441	17.20	18.00	1.202	76.42	1.309	0.06	0.032	0.050
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power Level 11	0	2402	17.10	18.00	1.230	76.42	1.309	-0.17	0.033	0.053
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power Level 11	78	2480	16.40	18.00	1.445	76.42	1.309	0.14	0.036	0.069
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power Level 10	78	2480	11.00	12.50	1.413	76.42	1.309	0.02	0.010	0.018
	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Power Level 9	78	2480	5.40	7.00	1.445	76.42	1.309	-0.11	0.005	0.009
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 12+7	Power Level 1	6	2437	22.06	24.00	1.563	100.00	1.000	0.1	0.153	0.239
89	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Power Level 1	6	2437	22.06	24.00	1.563	100.00	1.000	-0.03	0.227	**0.355**
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Power Level 1	1	2412	19.16	21.00	1.527	100.00	1.000	0.17	0.107	0.163
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Power Level 1	11	2462	19.21	21.00	1.510	100.00	1.000	-0.11	0.120	0.181
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Power Level 2	6	2437	21.11	23.00	1.545	100.00	1.000	0.12	0.173	0.267
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Power Level 3	6	2437	20.12	22.00	1.542	100.00	1.000	0.15	0.136	0.210
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Power Level 4	6	2437	19.12	21.00	1.541	100.00	1.000	-0.1	0.106	0.163
	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 12+7	Power Level 6	6	2437	15.10	17.00	1.549	100.00	1.000	-0.06	0.042	0.065
WLAN5GHz																
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 9+15	Power Level 1	50	5250	18.26	20.00	1.493	100.00	1.000	-	n/a	n/a
90	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 1	50	5250	18.26	20.00	1.493	100.00	1.000	0.08	0.565	**0.844**
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 9+15	Power Level 2	50	5250	17.28	19.00	1.487	100.00	1.000	-	n/a	n/a
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 2	50	5250	17.28	19.00	1.487	100.00	1.000	-0.18	0.437	0.650
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 3	50	5250	16.29	18.00	1.483	100.00	1.000	0.11	0.355	0.526
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 4	50	5250	15.25	17.00	1.495	100.00	1.000	-0.13	0.281	0.420
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 6	50	5250	11.27	13.00	1.491	100.00	1.000	0.13	0.139	0.207
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	15mm	Ant 9	Power Level 1	110	5550	17.27	19.00	1.489	100.00	1.000	-0.06	0.159	0.237
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9	Power Level 1	110	5550	17.27	19.00	1.489	100.00	1.000	0.18	0.269	0.401
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9	Power Level 1	126	5630	17.19	19.00	1.517	100.00	1.000	-0.01	0.308	0.467
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9	Power Level 1	102	5510	12.18	14.00	1.521	100.00	1.000	-0.08	0.105	0.160
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	15mm	Ant 9	Power Level 1	134	5670	12.23	14.00	1.503	100.00	1.000	0.12	0.139	0.209
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 15	Power Level 1	114	5570	13.34	14.50	1.306	100.00	1.000	-	n/a	n/a
91	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 15	Power Level 1	114	5570	13.34	14.50	1.306	100.00	1.000	-0.06	0.463	**0.605**
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	15mm	Ant 9+15	Power Level 2	114	5570	15.14	16.50	1.367	100.00	1.000	0.03	0.063	0.086
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 2	114	5570	15.14	16.50	1.367	100.00	1.000	-0.15	0.386	0.528
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 3	114	5570	14.09	15.50	1.383	100.00	1.000	-0.15	0.340	0.470
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 4	114	5570	13.07	14.50	1.390	100.00	1.000	0.06	0.271	0.377
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	15mm	Ant 9+15	Power Level 6	114	5570	9.10	10.50	1.381	100.00	1.000	-0.15	0.108	0.149
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 9	Power Level 1	155	5775	17.53	19.50	1.574	100.00	1.000	-0.16	0.159	0.250
92	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9	Power Level 1	155	5775	17.53	19.50	1.574	100.00	1.000	0.02	0.543	**0.855**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 15	Power Level 1	155	5775	12.15	14.00	1.531	100.00	1.000	-	n/a	n/a
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 15	Power Level 1	155	5775	12.15	14.00	1.531	100.00	1.000	-0.14	0.435	0.666
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 9+15	Power Level 2	155	5775	14.62	16.50	1.543	100.00	1.000	0.01	0.042	0.065
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9+15	Power Level 2	155	5775	14.62	16.50	1.543	100.00	1.000	0.03	0.483	0.745
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9+15	Power Level 3	155	5775	13.12	15.00	1.542	100.00	1.000	-0.17	0.321	0.495
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9+15	Power Level 4	155	5775	12.18	14.00	1.522	100.00	1.000	-0.03	0.253	0.385
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9+15	Power Level 6	155	5775	8.20	10.00	1.515	100.00	1.000	-0.06	0.100	0.152

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	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
1900MHz																		
	LTE Band 25	20M	QPSK	1	49	-	Left Side	0mm	Ant 0	DSI 4	26340	1880	21.28	21.90	1.153	-0.11	1.250	1.442
93	LTE Band 25	20M	QPSK	1	49	-	Left Side	0mm	Ant 0	DSI 4	26140	1860	21.25	21.90	1.161	-0.02	1.410	**1.638**
	LTE Band 25	20M	QPSK	1	49	-	Left Side	0mm	Ant 0	DSI 4	26590	1905	21.24	21.90	1.164	-0.1	1.120	1.304
	LTE Band 25	20M	QPSK	50	24	-	Left Side	0mm	Ant 0	DSI 4	26340	1880	21.22	21.90	1.169	0.06	1.210	1.415
2600MHz																		
	LTE Band 7	20M	QPSK	1	49	-	Top Side	0mm	Ant 6	DSI 4	21100	2535	21.35	21.80	1.109	0.14	1.180	1.309
	LTE Band 7	20M	QPSK	50	24	-	Top Side	0mm	Ant 6	DSI 4	21100	2535	21.28	21.80	1.127	0.15	1.250	1.409
94	LTE Band 7	20M	QPSK	50	24	-	Top Side	0mm	Ant 6	DSI 4	20850	2510	21.23	21.80	1.140	-0.17	1.380	**1.574**
	LTE Band 7	20M	QPSK	50	24	-	Top Side	0mm	Ant 6	DSI 4	21350	2560	21.17	21.80	1.156	0.09	1.110	1.283
95	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 6	DSI 4	507000	2535	22.21	23.20	1.256	-0.02	1.790	**2.248**
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 6	DSI 9/14	507000	2535	17.20	18.20	1.259	0.06	0.927	1.167
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	0mm	Ant 6	DSI 4	507000	2535	22.17	23.20	1.268	0.17	1.610	2.041
	FR1 n7	40M	QPSK	216	0	DFT-15	Top Side	0mm	Ant 6	DSI 4	507000	2535	22.13	23.20	1.279	0.08	1.630	2.085
96	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 0	DSI 4	519000	2595	20.81	21.80	1.256	-0.01	2.200	**2.763**
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 0	DSI 9/14	519000	2595	19.40	20.30	1.230	0.06	1.460	1.796
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	0mm	Ant 0	DSI 4	519000	2595	20.71	21.80	1.285	0.05	2.100	2.699
	FR1 n38	40M	QPSK	100	0	DFT-30	Left Side	0mm	Ant 0	DSI 4	519000	2595	20.71	21.80	1.285	0.01	2.050	2.635
97	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 6	DSI 4	518598	2592.99	21.86	22.20	1.081	0.08	1.520	**1.644**
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 6	DSI 4	518598	2592.99	21.84	22.20	1.086	-0.06	1.400	1.521
	FR1 n41	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 6	DSI 4	518598	2592.99	21.84	22.20	1.086	0.07	1.440	1.564
3000-4000MHz																		
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 7	DSI 4	656000	3840	21.48	22.70	1.324	-0.1	0.831	1.101
98	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 7	DSI 4	656000	3840	21.48	22.70	1.324	-0.1	1.010	**1.338**
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 4	656000	3840	21.45	22.70	1.334	0.15	0.789	1.052
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 7	DSI 4	656000	3840	21.45	22.70	1.334	-0.1	1.000	1.334
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 7	DSI 4	656000	3840	21.39	22.70	1.352	0.08	0.768	1.038
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Side	0mm	Ant 7	DSI 4	656000	3840	21.39	22.70	1.352	-0.11	0.954	1.290
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	DSI 4	662000	3930	21.39	22.70	1.352	0.1	0.464	0.627

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
WLAN5GHz																
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	0.12	0.632	0.916
99	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	-0.11	1.190	**1.725**
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	0.19	0.607	0.880
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	-0.19	0.144	0.209
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 9+15	Power Level 1	42	5210	18.39	20.00	1.450	100.00	1.000	-0.1	0.820	1.189
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	-0.02	0.641	0.973
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	0.07	0.956	1.452
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Left Side	0mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	0.06	0.342	0.519
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	-0.01	0.134	0.203
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 9+15	Power Level 2	42	5210	17.19	19.00	1.519	100.00	1.000	-0.18	0.642	0.975
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 3	42	5210	16.15	18.00	1.531	100.00	1.000	0.01	0.758	1.160
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 4	42	5210	15.19	17.00	1.519	100.00	1.000	-0.06	0.600	0.911
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 6	42	5210	11.21	13.00	1.510	100.00	1.000	0.18	0.241	0.364
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 9+15	Power Level 1	50	5250	18.26	20.00	1.493	100.00	1.000	0.06	0.710	1.060
100	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 1	50	5250	18.26	20.00	1.493	100.00	1.000	-0.06	1.260	**1.882**
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 9+15	Power Level 1	50	5250	18.26	20.00	1.493	100.00	1.000	-0.07	0.586	0.875
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 9+15	Power Level 1	50	5250	18.26	20.00	1.493	100.00	1.000	-0.04	0.145	0.217
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 9+15	Power Level 1	50	5250	18.26	20.00	1.493	100.00	1.000	0.11	0.777	1.160
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 9+15	Power Level 2	50	5250	17.28	19.00	1.487	100.00	1.000	-0.15	0.601	0.893
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 2	50	5250	17.28	19.00	1.487	100.00	1.000	-0.15	0.996	1.481
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 9+15	Power Level 2	50	5250	17.28	19.00	1.487	100.00	1.000	0.18	0.358	0.532
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 9+15	Power Level 2	50	5250	17.28	19.00	1.487	100.00	1.000	0.05	0.140	0.208
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 9+15	Power Level 2	50	5250	17.28	19.00	1.487	100.00	1.000	-0.13	0.640	0.951
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 3	50	5250	16.29	18.00	1.483	100.00	1.000	0.16	0.782	1.160
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 4	50	5250	15.25	17.00	1.495	100.00	1.000	-0.18	0.634	0.948
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 6	50	5250	11.27	13.00	1.491	100.00	1.000	-0.06	0.253	0.377
	WLAN5.5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 9	Power Level 1	110	5550	17.27	19.00	1.489	100.00	1.000	-0.08	0.812	1.209
	WLAN5.5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 9	Power Level 1	110	5550	17.27	19.00	1.489	100.00	1.000	0.1	0.568	0.846
	WLAN5.5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 9	Power Level 1	110	5550	17.27	19.00	1.489	100.00	1.000	-0.06	0.163	0.243
101	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 9	Power Level 1	110	5550	17.27	19.00	1.489	100.00	1.000	-0.02	0.873	**1.300**
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 9	Power Level 1	126	5630	17.19	19.00	1.517	100.00	1.000	0.18	0.790	1.198
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 9	Power Level 1	102	5510	12.18	14.00	1.521	100.00	1.000	0.11	0.391	0.595
	WLAN5.5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 9	Power Level 1	134	5670	12.23	14.00	1.503	100.00	1.000	0.19	0.297	0.446
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 15	Power Level 1	114	5570	13.34	14.50	1.306	100.00	1.000	0.19	0.053	0.069
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 15	Power Level 1	114	5570	13.34	14.50	1.306	100.00	1.000	-0.15	0.754	0.985
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 15	Power Level 1	114	5570	13.34	14.50	1.306	100.00	1.000	-0.03	0.313	0.409
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 9+15	Power Level 2	114	5570	15.14	16.50	1.367	100.00	1.000	0.11	0.285	0.390
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 2	114	5570	15.14	16.50	1.367	100.00	1.000	-0.16	0.690	0.943
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Side	0mm	Ant 9+15	Power Level 2	114	5570	15.14	16.50	1.367	100.00	1.000	-0.09	0.237	0.324
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 9+15	Power Level 2	114	5570	15.14	16.50	1.367	100.00	1.000	0.19	0.043	0.059
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 9+15	Power Level 2	114	5570	15.14	16.50	1.367	100.00	1.000	0.09	0.287	0.392
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 3	114	5570	14.09	15.50	1.383	100.00	1.000	0.06	0.542	0.749
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 4	114	5570	13.07	14.50	1.390	100.00	1.000	-0.07	0.432	0.600
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 9+15	Power Level 6	114	5570	9.10	10.50	1.381	100.00	1.000	-0.11	0.174	0.240
102	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9	Power Level 1	155	5775	17.53	19.50	1.574	100.00	1.000	-0.03	0.780	**1.228**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 15	Power Level 1	155	5775	12.15	14.00	1.531	100.00	1.000	-0.06	0.637	0.975
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 2	155	5775	14.62	16.50	1.543	100.00	1.000	0.03	0.653	1.008
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 3	155	5775	13.12	15.00	1.542	100.00	1.000	0.14	0.453	0.698
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 4	155	5775	12.18	14.00	1.522	100.00	1.000	0.12	0.365	0.556
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+15	Power Level 6	155	5775	8.20	10.00	1.515	100.00	1.000	0.01	0.149	0.226

15.5 Repeated SAR Measurement

<1g>

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	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 5	4182	836.4	23.53	23.80	1.064	-	-	-0.16	0.999	1	1.063
2st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 5	4182	836.4	23.53	23.80	1.064	-	-	-0.12	0.976	1.024	1.039
1st	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	349000	1745	18.05	19.20	1.303	-	-	-0.09	0.850	1	1.108
2st	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	DSI 5	349000	1745	18.05	19.20	1.303	-	-	0.12	0.833	1.020	1.086
1st	LTE Band 25	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26140	1860	19.72	20.40	1.169	-	-	0.04	0.843	1	0.986
2st	LTE Band 25	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5/10/15	26140	1860	19.72	20.40	1.169	-	-	-0.12	0.827	1.019	0.967
1st	LTE Band 30	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	0.09	0.821	1	0.906
2st	LTE Band 30	10M	QPSK	1	25	-	Right Cheek	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	-0.11	0.809	1.015	0.893
1st	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	21350	2560	22.58	22.90	1.076	-	-	-0.06	1.040	1	1.120
2st	LTE Band 7	20M	QPSK	50	24	-	Right Cheek	0mm	Ant 0	DSI 5	21350	2560	22.58	22.90	1.076	-	-	0.03	1.000	1.040	1.076
1st	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	633332	3499.98	17.68	18.20	1.127	-	-	-0.13	1.030	1	1.161
2st	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 14	DSI 5	633332	3499.98	17.68	18.20	1.127	-	-	0.08	1.000	1.030	1.127
1st	WLAN5.5GHz	-	-	-	-	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 1	114	5570	14.83	16.50	1.469	100.00	1.000	0.04	0.807	1	1.185
2st	WLAN5.5GHz	-	-	-	-	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9	Power Level 1	114	5570	14.83	16.50	1.469	100.00	1.000	-0.13	0.774	1.043	1.137
1st	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	DSI 9/14	656000	3840	18.93	19.70	1.194	-	-	0.01	0.832	1	0.993
2st	FR1 n77	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	DSI 9/14	656000	3840	18.93	19.70	1.194	-	-	-0.12	0.811	1.026	0.968

<10g>

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	LTE Band 7	20M	QPSK	50	24	-	Left Side	0mm	Ant 0	DSI 5	21350	2560	22.58	22.90	1.076	-	-	-0.13	2.560	1	2.756
2st	LTE Band 7	20M	QPSK	50	24	-	Left Side	0mm	Ant 0	DSI 5	21350	2560	22.58	22.90	1.076	-	-	0.08	2.480	1.032	2.670
1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 5	4132	826.4	24.54	24.80	1.062	-	-	-0.05	2.020	1	2.145
2st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 5	4132	826.4	24.54	24.80	1.062	-	-	-0.12	1.950	1.036	2.070
1st	GSM1900	-	-	-	-	GPRS(1Tx slots)	Bottom Side	0mm	Ant 5	DSI 5	512	1850.2	30.07	31.00	1.239	-	-	0.09	2.070	1	2.564
2st	GSM1900	-	-	-	-	GPRS(1Tx slots)	Bottom Side	0mm	Ant 5	DSI 5	512	1850.2	30.07	31.00	1.239	-	-	-0.13	1.970	1.051	2.440
1st	LTE Band 30	10M	QPSK	1	25	-	Left Side	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	-0.05	2.120	1	2.341
2st	LTE Band 30	10M	QPSK	1	25	-	Left Side	0mm	Ant 0	DSI 5	27710	2310	21.47	21.90	1.104	-	-	-0.14	2.020	1.050	2.230

General Note:

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

15.6 TDD LTE Linearity Data Analysis

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

Head

LTE Band 41(HPUE)-Linearity Data for DSI5-ANT0		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	25.80
Reported 1g SAR (W/kg)	0.898	0.969
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	164.62
Linearity SAR (W/kg)	0.974	
% deviation from expected linearity		-0.47%

LTE Band 41(HPUE)-Linearity Data for DSI5-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.80	23.40
Reported 1g SAR (W/kg)	0.055	0.059
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	95.81	94.73
Linearity SAR (W/kg)	0.054	
% deviation from expected linearity		8.49%

LTE Band 41(HPUE)-Linearity Data for DSI5-ANT6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.30	21.90
Reported 1g SAR (W/kg)	1.064	1.085
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	67.83	67.06
Linearity SAR (W/kg)	1.052	
% deviation from expected linearity		3.13%
LTE Band 41(HPUE)-Linearity Data for DSI10/15-ANT6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.30	20.90
Reported 1g SAR (W/kg)	0.837	0.832
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	53.88	53.27
Linearity SAR (W/kg)	0.828	
% deviation from expected linearity		0.53%

LTE Band 41(HPUE)-Linearity Data for DSI5-ANT7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	24.60
Reported 1g SAR (W/kg)	0.804	0.633
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	124.88
Linearity SAR (W/kg)	0.631	
% deviation from expected linearity		0.25%

Hotspot

LTE Band 41(HPUE)-Linearity Data for DSI9/14-ANT0		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	25.40
Reported 1g SAR (W/kg)	0.884	0.895
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	150.14
Linearity SAR (W/kg)	0.874	
% deviation from expected linearity		2.40%

LTE Band 41(HPUE)-Linearity Data for DSI9/14-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.30	21.90
Reported 1g SAR (W/kg)	0.444	0.409
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	67.83	67.06
Linearity SAR (W/kg)	0.439	
% deviation from expected linearity		-6.83%

LTE Band 41(HPUE)-Linearity Data for DSI9/14-ANT6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.30	23.90
Reported 1g SAR (W/kg)	0.847	0.816
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	107.50	106.29
Linearity SAR (W/kg)	0.837	
% deviation from expected linearity		-2.56%

LTE Band 41(HPUE)-Linearity Data for DSI9/14-ANT7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.00	24.60
Reported 1g SAR (W/kg)	0.460	0.447
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	126.30	124.88
Linearity SAR (W/kg)	0.455	

% deviation from expected linearity		-1.72%

Body Worn

LTE Band 41(HPUE)-Linearity Data for DSI4-ANT0		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.80	25.80
Reported 1g SAR (W/kg)	0.241	0.258
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	151.85	164.62
Linearity SAR (W/kg)	0.261	
% deviation from expected linearity		-1.25%

LTE Band 41(HPUE)-Linearity Data for DSI4-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.80	23.40
Reported 1g SAR (W/kg)	0.186	0.191
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	95.81	94.73
Linearity SAR (W/kg)	0.184	
% deviation from expected linearity		3.86%

LTE Band 41(HPUE)-Linearity Data for DSI4-ANT6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.80	24.40
Reported 1g SAR (W/kg)	0.210	0.204
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	120.62	119.26
Linearity SAR (W/kg)	0.208	
% deviation from expected linearity		-1.75%

LTE Band 41(HPUE)-Linearity Data for DSI4-ANT7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	24.60
Reported 1g SAR (W/kg)	0.239	0.183
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	124.88
Linearity SAR (W/kg)	0.188	
% deviation from expected linearity		-2.51%

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN5GHz	Yes	Yes	Yes	Yes
3.	WWAN + WLAN6GHz	Yes	Yes		Yes
4.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
5.	WLAN 2.4GHz + Bluetooth	Yes	Yes	Yes	Yes
6.	WLAN 5GHz + Bluetooth	Yes	Yes	Yes	Yes
7.	WLAN 6GHz + Bluetooth	Yes	Yes		Yes
8.	WWAN + WLAN 2.4GHz + Bluetooth	Yes	Yes	Yes	Yes
9.	WWAN + WLAN 5GHz + Bluetooth	Yes	Yes	Yes	Yes
10.	WWAN + WLAN 6GHz + Bluetooth	Yes	Yes		Yes
11.	WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
12.	WLAN2.4GHz + WLAN6GHz	Yes	Yes		Yes
13.	WWAN + WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
14.	WWAN + WLAN2.4GHz + WLAN6GHz	Yes	Yes		Yes
15.	WLAN2.4GHz + WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
16.	WLAN2.4GHz + WLAN6GHz + Bluetooth	Yes	Yes		Yes
17.	WWAN + WLAN2.4GHz + WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
18.	WWAN + WLAN2.4GHz + WLAN6GHz + Bluetooth	Yes	Yes		Yes
19.	WWAN + WLAN2.4GHz+NFC				Yes
20.	WWAN + WLAN5GHz+NFC				Yes
21.	WWAN + WLAN6GHz+NFC				Yes
22.	WWAN + Bluetooth+NFC				Yes
23.	WLAN 2.4GHz + Bluetooth+NFC				Yes
24.	WLAN 5GHz + Bluetooth+NFC				Yes
25.	WLAN 6GHz + Bluetooth+NFC				Yes
26.	WWAN + WLAN 2.4GHz + Bluetooth+NFC				Yes
27.	WWAN + WLAN 5GHz + Bluetooth+NFC				Yes
28.	WWAN + WLAN 6GHz + Bluetooth+NFC				Yes
29.	WLAN2.4GHz + WLAN5GHz+NFC				Yes
30.	WLAN2.4GHz + WLAN6GHz+NFC				Yes
31.	WWAN + WLAN2.4GHz + WLAN5GHz+NFC				Yes
32.	WWAN + WLAN2.4GHz + WLAN6GHz+NFC				Yes
33.	WLAN2.4GHz + WLAN5GHz + Bluetooth+NFC				Yes
34.	WLAN2.4GHz + WLAN6GHz + Bluetooth+NFC				Yes
35.	WWAN + WLAN2.4GHz + WLAN5GHz + Bluetooth+NFC				Yes
36.	WWAN + WLAN2.4GHz + WLAN6GHz + Bluetooth+NFC				Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA and LTE (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands.
3. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO and MIMO antenna mode.
4. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
5. 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.
6. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
7. 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). WLAN6GHz has no hotspot function.

8. The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
9. According to the EUT characteristic, WLAN 2.4GHz Chain0 and Bluetooth Chain 1 cannot transmit simultaneously.
10. According to the EUT characteristic, WLAN 2.4GHz Chain1 and Bluetooth Chain 0 can transmit simultaneously.
11. According to the EUT characteristic, WLAN 5GHz/6GHz and Bluetooth can transmit simultaneously.
12. According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously.
13. NFC can transmit simultaneously with other Radios in extremity exposure condition.
14. When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
15. The maximum SAR summation is calculated based on the same configuration and test position.
16. For standalone WWAN, always choose the highest SAR among the selected 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.
17. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR , simultaneously transmission SAR measurement is not necessary.
    iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
18. The WLAN6GHz Sim-Tx analysis guidance with other transmitters was based on SAR test results. The simultaneous transmission and test exemption analysis were compliant with KDB 447498 D01. For the device does not support FR2 or other MPE field measurement, therefore section 15 in the SAR report has no TER analysis according to KDB 987594 requirement.

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 ≤ 1.0,*

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

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

*x% * A + (100-x)% * B + C ≤ 1.0* (1)

x% * A + (100-x)% * B ≤ x% * max(A, B) + (100-x)% * max(A, B) ≤ max(A, B)

*x% * A + (100-x)% * B + C ≤ max(A, B) + C ≤ 1.0* (2)

If A + C ≤ 1.0 and B + C ≤ 1.0 can be proven, then “x% * A + (100-x)% * B + C ≤ 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 ≤ 1.0, and
iii. x% * A + (100-x)% * B ≤ 1.0
Note iii. is covered in Part 2 report; i. and ii. should be addressed in Part 2 report.

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

Above analysis is also apply to LTE/NR band UL MIMO, NR(SISO1) + NR(SISO2) + WLAN + BT simultaneous transmission, so UL MIMO no need to do additional simultaneously analysis again. Only required comply with total exposure ratio (TER) of NR + WLAN + BT < 1.

16.2 Head Exposure Conditions

Exposure Position	3	4	5	6	7	8	3+7	3+8	4+5+7	4+5+8	6+7	6+8
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9	WLAN5GHz Ant 15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	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)	1g SAR (W/kg)
Right Cheek	0.322	0.720	0.327	0.110	0.158	0.202	0.48	0.52	1.21	1.25	0.27	0.31
Right Tilted	0.308	0.720	0.327	0.110	0.262	0.202	0.57	0.51	1.31	1.25	0.37	0.31
Left Cheek	0.629	0.720	0.327	0.110	0.262	0.202	0.89	0.83	1.31	1.25	0.37	0.31
Left Tilted	0.441	0.720	0.327	0.110	0.262	0.202	0.70	0.64	1.31	1.25	0.37	0.31

Exposure Position	3	4	5	6	3+4+5	3+6
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9	WLAN5GHz Ant 15	WLAN6GHz Ant 9+15	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)
Right Cheek	0.518	0.551	0.327	0.110	1.40	0.63
Right Tilted	0.518	0.551	0.327	0.110	1.40	0.63
Left Cheek	0.518	0.551	0.327	0.110	1.40	0.63
Left Tilted	0.518	0.551	0.327	0.110	1.40	0.63

Exposure Position	3	4	5	6	7	8	3+4+5+7	3+4+5+8	3+6+7	3+6+8
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9	WLAN5GHz Ant 15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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)
Right Cheek	0.366	0.394	0.327	0.110	0.158	0.202	1.25	1.29	0.63	0.68
Right Tilted	0.366	0.394	0.327	0.110	0.262	0.202	1.35	1.29	0.74	0.68
Left Cheek	0.366	0.394	0.327	0.110	0.262	0.202	1.35	1.29	0.74	0.68
Left Tilted	0.366	0.394	0.327	0.110	0.262	0.202	1.35	1.29	0.74	0.68

WWAN Band	Exposure Position	1	3	4	5	6	7	8	1+3	1+4+5	1+6	1+7	1+8
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9	WLAN5GHz Ant 15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands	Right Cheek	0.999	0.366	0.344	0.159	0.110	0.158	0.202	1.37	1.50	1.11	1.16	1.20
	Right Tilted	0.953	0.366	0.344	0.159	0.110	0.262	0.202	1.32	1.46	1.06	1.22	1.16
	Left Cheek	0.926	0.366	0.344	0.159	0.110	0.262	0.202	1.29	1.43	1.04	1.19	1.13
	Left Tilted	0.951	0.366	0.344	0.159	0.110	0.262	0.202	1.32	1.45	1.06	1.21	1.15

WWAN Band	Exposure Position	1	3	4	5	6	7	8	1+3+7	1+3+8	1+4+5+7	1+4+5+8	1+6+7	1+6+8	1+3+4+5	1+3+6
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9	WLAN5GHz Ant 15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands	Right Cheek	0.999	0.160	0.155	0.159	0.110	0.158	0.202	1.32	1.36	1.47	1.52	1.27	1.31	1.473	1.27
	Right Tilted	0.953	0.160	0.155	0.159	0.110	0.262	0.202	1.38	1.32	1.53	1.47	1.33	1.27	1.427	1.22
	Left Cheek	0.926	0.160	0.155	0.159	0.110	0.262	0.202	1.35	1.29	1.50	1.44	1.30	1.24	1.400	1.20
	Left Tilted	0.951	0.160	0.155	0.159	0.110	0.262	0.202	1.37	1.31	1.53	1.47	1.32	1.26	1.425	1.22

WWAN Band	Exposure Position	1	3	4	5	6	7	8	1+3+4+5+7	1+3+4+5+8	1+3+6+7	1+3+6+8
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9	WLAN5GHz Ant 15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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	Right Cheek	0.999	0.160	0.155	0.159	0.110	0.048	0.085	1.52	**1.56**	1.32	1.35
	Right Tilted	0.953	0.160	0.155	0.159	0.110	0.080	0.085	1.51	1.51	1.30	1.31
	Left Cheek	0.926	0.160	0.155	0.159	0.110	0.080	0.085	1.48	1.49	1.28	1.28
	Left Tilted	0.951	0.160	0.155	0.159	0.110	0.080	0.085	1.51	1.51	1.30	1.31

16.3 Hotspot Exposure Conditions

Exposure Position	3	4	5	6	3+5	3+6	4+5	4+6
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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)
Front	0.810	0.999	0.194	0.058	1.00	0.87	1.19	1.06
Back	0.810	0.999	0.194	0.058	1.00	0.87	1.19	1.06
Left side	0.810	0.999	0.194	0.058	1.00	0.87	1.19	1.06
Right side	0.810	0.999	0.194	0.058	1.00	0.87	1.19	1.06
Top side	0.810	0.999	0.194	0.058	1.00	0.87	1.19	1.06
Bottom side	0.810	0.999	0.194	0.058	1.00	0.87	1.19	1.06

Exposure Position	3	4	3+4
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Front	0.643	0.748	1.39
Back	0.643	0.748	1.39
Left side	0.643	0.748	1.39
Right side	0.643	0.748	1.39
Top side	0.643	0.748	1.39
Bottom side	0.643	0.748	1.39

Exposure Position	3	4	5	6	3+4+5	3+4+6
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	Bluetooth Ant 12	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)
Front	0.476	0.580	0.194	0.058	1.25	1.11
Back	0.476	0.580	0.194	0.058	1.25	1.11
Left side	0.476	0.580	0.194	0.058	1.25	1.11
Right side	0.476	0.580	0.194	0.058	1.25	1.11
Top side	0.476	0.580	0.194	0.058	1.25	1.11
Bottom side	0.476	0.580	0.194	0.058	1.25	1.11

WWAN Band	Exposure Position	1	3	4	5	6	1+3	1+4	1+5	1+6
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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)
All Bands	Front	0.658	0.476	0.580	0.194	0.058	1.13	1.24	0.85	0.72
	Back	0.993	0.476	0.580	0.194	0.058	1.47	**1.57**	1.19	1.05
	Left side	0.951	0.476	0.580	0.194	0.058	1.43	1.53	1.15	1.01
	Right side	0.931	0.476	0.580	0.194	0.058	1.41	1.51	1.13	0.99
	Top side	0.905	0.476	0.580	0.194	0.058	1.38	1.49	1.10	0.96
	Bottom side	0.616	0.476	0.580	0.194	0.058	1.09	1.20	0.81	0.67

WWAN Band	Exposure Position	1	3	4	5	6	1+3+5	1+3+6	1+4+5	1+4+6	1+3+4
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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)
All Bands	Front	0.658	0.189	0.229	0.194	0.058	1.04	0.91	1.08	0.95	1.08
	Back	0.993	0.189	0.229	0.194	0.058	1.18	1.22	1.19	1.05	1.41
	Left side	0.951	0.189	0.229	0.194	0.058	1.14	1.18	1.15	1.01	1.37
	Right side	0.931	0.189	0.229	0.194	0.058	1.12	1.16	1.13	0.99	1.35
	Top side	0.905	0.189	0.229	0.194	0.058	1.09	1.13	1.10	0.96	1.32
	Bottom side	0.616	0.189	0.229	0.194	0.058	0.81	0.85	0.81	0.67	1.03

WWAN Band	Exposure Position	1	3	4	5	6	1+3+4+5	1+3+4+6
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	Bluetooth Ant 12	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)	1g SAR (W/kg)
All Bands	Front	0.658	0.189	0.229	0.091	0.029	1.17	1.11
	Back	0.993	0.189	0.229	0.091	0.029	1.50	1.44
	Left side	0.951	0.189	0.229	0.091	0.029	1.46	1.40
	Right side	0.931	0.189	0.229	0.091	0.029	1.44	1.38
	Top side	0.905	0.189	0.229	0.091	0.029	1.41	1.35
	Bottom side	0.616	0.189	0.229	0.091	0.029	1.13	1.06

16.4 Body-Worn Accessory Exposure Conditions

Exposure Position	3	4	5	6	7	3+6	3+7	4+6	4+7	5+6	5+7
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	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)
Front	0.267	0.086	0.054	0.067	0.018	0.33	0.29	0.15	0.10	0.12	0.07
Back	0.267	0.745	0.054	0.067	0.018	0.33	0.29	0.81	0.76	0.12	0.07

Exposure Position	3	4	5	3+4	3+5
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	WLAN6GHz Ant 9+15	Summed	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Front	0.210	0.526	0.054	0.74	0.26
Back	0.210	0.526	0.054	0.74	0.26

Exposure Position	3	4	5	6	7	3+4+6	3+4+7	3+5+6	3+5+7
	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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)
Front	0.163	0.420	0.054	0.067	0.018	0.65	0.60	0.28	0.24
Back	0.163	0.420	0.054	0.067	0.018	0.65	0.60	0.28	0.24

WWAN Band	Exposure Position	1	3	4	5	6	7	1+3	1+4	1+5	1+6	1+7
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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	Front	0.547	0.163	0.420	0.054	0.067	0.018	0.71	0.97	0.60	0.61	0.57
	Back	0.486	0.163	0.420	0.054	0.067	0.018	0.65	0.91	0.54	0.55	0.50

WWAN Band	Exposure Position	1	3	4	5	6	7	1+3+6	1+3+7	1+4+6	1+4+7	1+5+6	1+5+7	1+3+4	1+3+5
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	Summed	Summed	Summed	Summed	Summed	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Bands	Front	0.547	0.065	0.207	0.054	0.067	0.018	0.68	0.63	0.82	0.77	0.67	0.62	0.82	0.67
	Back	0.486	0.065	0.207	0.054	0.067	0.018	0.62	0.57	0.76	0.71	0.61	0.56	0.76	0.61

WWAN Band	Exposure Position	1	3	4	5	6	7	1+3+4+6	1+3+4+7	1+3+5+6	1+3+5+7
		WWAN	WLAN2.4GHz Ant 12+7	WLAN5GHz Ant 9+15	WLAN6GHz Ant 9+15	Bluetooth Ant 12	Bluetooth Ant 7	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)
All Bands	Front	0.547	0.065	0.207	0.054	0.067	0.018	0.89	0.84	0.73	0.68
	Back	0.486	0.065	0.207	0.054	0.067	0.018	0.83	0.78	0.67	0.62

16.5 Product specific 10g SAR Exposure Conditions

Remark:

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

WWAN Band	Exposure Position	1	3	4	5	1+3+5	1+4+5
		WWAN	WLAN5GHz Ant 9+15	WLAN6GHz Ant 9+15	NFC	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	Front	0.000	0.973	0.034	0.001	0.97	0.04
	Back	1.101	1.481	0.088	0.007	2.59	1.20
	Left side	1.796	0.532	0.024	0.000	2.33	1.82
	Right side	1.338	0.208	0.000	0.000	1.55	1.34
	Top side	1.644	0.975	0.028	0.002	**2.62**	1.67
	Bottom side	0.000	0.000	0.000	0.000	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 ≤ 30%, for a confidence interval of k = 2. If these conditions are met, extensive SAR measurement uncertainty analysis described in IEEE Std 1528-2013 is not required in SAR reports submitted for equipment approval. For this device, the highest measured 1-g SAR is less 1.5W/kg and highest measured 10-g SAR is less 3.75W/kg. Therefore, the measurement uncertainty table is not required in this report.

18. References

[1] FCC 47 CFR Part 2 “Frequency Allocations and Radio Treaty Matters; General Rules and Regulations”

[2] ANSI/IEEE Std. C95.1-1992, “IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz”, September 1992

[3] IEEE Std. 1528-2013, “IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques”, Sep 2013

[4] SPEAG DASY System Handbook

[5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.

[6] FCC KDB 865664 D02 v01r02, “RF Exposure Compliance Reporting and Documentation Considerations” Oct 2015.

[7] FCC KDB 648474 D04 v01r03, “SAR Evaluation Considerations for Wireless Handsets”, Oct 2015.

[8] FCC KDB 248227 D01 v02r02, “SAR Guidance for IEEE 802.11 (WiFi) Transmitters”, Oct 2015.

[9] FCC KDB 941225 D01 v03r01, “3G SAR MEAUREMENT PROCEDURES”, Oct 2015

[10] FCC KDB 941225 D05 v02r05, “SAR Evaluation Considerations for LTE Devices”, Dec 2015

[11] FCC KDB 941225 D05A v01r02, “Rel. 10 LTE SAR Test Guidance and KDB Inquiries”, Oct 2015

[12] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.

[13] FCC KDB 447498 D01 v06, “Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies”, Oct 2015

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