FCC SAR Test Report

APPLICANT	: Motorola Mobility LLC
EQUIPMENT	: Mobile Cellular Phone
BRAND NAME	: Motorola
MODEL NAME	: XT2437-3
FCC ID	: IHDT56AS9
STANDARD	: FCC 47 CFR Part 2 (2.1093)

We, Sporton International Inc. (Kunshan), 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. (Kunshan), the test report shall not be reproduced except in full.

Si Zhang

Approved by: Si Zhang

ACCREDITED
Cert #5145.02

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA471919-01	Rev. 01	Initial issue of report.	Aug. 23, 2024
FA471919-01	Rev. 02	1. Updated Plimit table in section 6 2. Updated other PA/Path related descriptions and data for some frequency bands. This report is an update version, replacing the report issued on Aug. 23, 2024.	Aug. 26, 2024
FA471919-01	Rev. 03	1. Added parent model test data; This report is an update version, replacing the report issued on Aug. 26, 2024.	Sep. 03, 2024
FA471919-01	Rev. 04	1. Added the LTE Band 2/4 at Ant1 and LTE Band 4/66/7 at Ant4 other PA relevant data in section 17. 2. Updated the LTE Band 2/4/5/26/66/7/38/41and 5GNR n7/78 other Path relevant data in section 17. This report is an updated version, replacing the report issued on Sep. 03, 2024.	Sep. 18, 2024

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2437-3,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 5mm)	Body-worn (Separation 5mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	0.25	1.07	1.07	1.59
		GSM1900	<0.10	1.04	1.04	
	WCDMA	WCDMA II	0.16	1.20	1.27	
		WCDMA V	0.27	1.30	1.30	
	LTE	LTE Band 7	0.88	1.27	1.26	
		LTE Band 2	0.89	1.27	1.29	
		LTE Band 26/5	0.88	1.21	1.21	
		LTE Band 41/38	0.92	**1.40**	1.26	
		LTE Band 42	0.89	0.65	0.88	
	5G NR	FR1 n7	0.89	1.24	1.27	
		FR1 n26/n5	0.89	0.88	0.87	
		n41/n38	0.89	1.29	1.29	
		FR1 n77/n78	0.89	1.28	1.29	
DTS	WLAN	2.4GHz WLAN	**1.40**	0.67	**1.38**	1.59
NII		5GHz WLAN	1.15	0.64	1.16	1.59
6XD		6GHz WLAN	1.00		0.69	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.25	0.29	0.26	1.59

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	WCDMA	WCDMA II	3.15	3.85
		WCDMA V	2.51	
	LTE	LTE Band 7	2.83	
		LTE Band 2	3.07	
		LTE Band 26/5	2.21	
		LTE Band 41/38	**3.42**	
		LTE Band 42	2.55	
	5G NR	FR1 n7	3.15	
		FR1 n26	1.44	
		FR1 n41/n38	3.16	
		FR1 n77/n78	2.89	
DTS	WLAN	2.4GHz WLAN	2.32	3.85
NII		5GHz WLAN	2.71	3.85
6XD		6GHz WLAN	0.66	3.85

Equipment Class	Frequency Band	Head	Body-worn	Product Specific
		Measured APD (W/m^2)	Measured APD (W/m^2)	Measured APD (W/m^2)
6XD	6GHz WLAN	4.35	3.16	9.86
Date of Testing:		2024/8/2 ~ 2024/8/19		

Remark:

1. This device supports LTE B5 / B38 and B26 / B41. Since the supported frequency span for LTE B5 / B38 falls completely within the supports frequency span for LTE B26 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B26 / B41.
2. This device supports 5GNR n5 and n26. Since the supported frequency span for 5GNR n5 falls completely within the supports frequency span for n26, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for n26.

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

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

2. Administration Data

Sporton International Inc. (Kunshan) is accredited to ISO/IEC 17025:2017 by American Association for Laboratory Accreditation with Certificate Number 5145.02.

Testing Laboratory			
Test Firm	Sporton International Inc. (Kunshan)		
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL : +86-512-57900158		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR01-KS	CN1257	314309

Applicant	
Company Name	Motorola Mobility LLC
Address	222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

Manufacturer	
Company Name	Motorola Mobility LLC
Address	222 W,Merchandise Mart Plaza, Chicago IL 60654 USA

3. Data Reuse Approach

3.1 Introduction Section

This application re-uses data collected on a similar device, FCC ID: IHDT56AS8 (reference model) and FCC ID: IHDT56AS9 (variant model). Due to the same design are identical between parent model and variant model, SAR data reuse is requested and spot check data in this report is used to justify the SAR data reuse.

Per KDB 484596 D01 v02r03, the deviation of variant model 1g SAR and 10g SAR spot check result was no larger than 3 dB, the WWAN/WLAN/BT maximum SAR summary was always choosing the higher SAR between parent model and variant model.

The applicant should take full responsibility that the test data as referenced in this report represent compliance for this FCC ID: IHDT56AS9

3.2 Model Difference Information

The **main** difference between FCC ID: IHDT56AS8 and FCC ID: IHDT56AS9 is as below:

- Removed WCDMA IV and LTE B4/12/13/17/25/66 and 5G NR n2/n66.
- Added LTE B20/32 and 5G NR n8/n20/n38/n41/n77.

Other differences and all the details of similarity and difference can be found in the confidential documents (XT2437-3_Operational Description of Product Equality Declaration).

3.3 Reference detail Section

Rule Part	Equipment Class	Wireless Technology	Frequency Band (MHz)	FCC ID (Reference)	Type Grant/ Permissive Change	Reference Title	FCC ID Filling (Variant)	Test on the variant
Part 2.1093	PCE	GSM	GSM850/1900	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check
		WCDMA	B2/5	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check
		LTE	B38/B41, B2/B5/B7/B26 Ant 4				IHDT56AS9	Full Test
		LTE	B5/B26 Ant 0, B2/B7 Ant 1, B42 Ant 5	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check
		5G NR	n38/n41/n77/n78, n5/n26/n7 Ant4				IHDT56AS9	Full Test
		5G NR	n5/n26 Ant0, n7 Ant1	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check
	DTS	BLE/ Wi-Fi	2400~2483.5	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check
	NII	Wi-Fi	5150 ~ 5250 5250 ~ 5350 5470 ~ 5725 5725 ~ 5850	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check
	DSS	Bluetooth	2400~2483.5	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check
	6XD	Wi-Fi	5925 ~ 7125	IHDT56AS8	Original Grant	FA471919	IHDT56AS9	Spot check on SAR, full test on PD
	DXX	NFC	13.56				IHDT56AS9	Full Test

4. 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
- IEC/IEEE 62209-1528:2020
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
- FCC KDB 484596 D01 Referencing Test Data v02r03

5. Equipment Under Test (EUT) Information

5.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2437-3
FCC ID	IHDT56AS9
IMEI Code	IMEI1: 359867620008036 IMEI2: 359867620008044
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5720 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz 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 NFC: 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA/HSUPA DC-HSDPA HSPA+(16QAM uplink is not 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 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac/ax VHT20/VHT40/VHT80/VHT160/HE20/HE40/HE80/HE160 WLAN 6GHz 802.11ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK
HW Version	DVT2
SW Version	U4UQ34.39
GSM / (E)GPRS Transfer mode	Class B – EUT cannot support Packet Switched and Circuit Switched Network simultaneously but can automatically switch between Packet and Circuit Switched Network.
EUT Stage	Identical Prototype
Remark:	

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). WLAN 6GHz has no hotspot function.
4. This device does not support DTM operation and supports GPRS/EGPRS mode up to multi-slot class 12.
5. The device does not support UNII-8_CH233 (BW=20M, Center Frequency = 7115MHz).
6. This device 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 proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are 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.
8. For WLAN when transmit simultaneous with WWAN/BT, power reduction will be activated to head exposure condition. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and extremity exposure conditions.
9. This device implements antenna tuning techniques for several WWAN (cellular) operating modes and frequencies for the purpose of improving antenna efficiency over a broad range of frequencies. Specifically, these techniques are employed in the LTE and 5GNR modes. In this report SAR was measured according to the normally required SAR configurations with the tuner active and worst tune state (auto tune) was used for SAR testing. The detail descriptions of the antenna tuner and supplemental data for additional information can be referred to section 19 and appendix G.
10. 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.
11. For 5G NR bands test, using FTM (Factory Test Mode) with default 100% duty cycle transmission to perform SAR testing.
12. 5GNR n77/n78 supports HPUE, HPUE power and SAR testing performed separately.
13. 5GNR n77/n78 HPUE with higher power, 5GNR n77/n78 HPUE SAR can represent power class 3 level SAR.
14. This device has NFC function and the NFC SAR report will be separately submitted.
15. Power density test report for WLAN 6GHz U-NII-5/6/7/8 will be separately submitted.
16. 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	n5	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, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n26	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, 15, 20, 30, 40, 50, 60, 70, 80, 90, 100

5.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05	
FCC ID	IHDT56AS9
Equipment Name	Mobile Cellular Phone
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 42: 3450 MHz ~ 3550 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 42: 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM
LTE Voice / Data requirements	Voice and Data
LTE Release Version	R16
CA Support	Supported, Uplink and Downlink
LTE MPR permanently built-in by design	**Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3** Modulation | Channel bandwidth / Transmission bandwidth (N_{RB}) | MPR (dB) 1.4 MHz | 3.0 MHz | 5 MHz | 10 MHz | 15 MHz | 20 MHz QPSK | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 1 16 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 1 16 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 2 64 QAM | ≤ 5 | ≤ 4 | ≤ 8 | ≤ 12 | ≤ 16 | ≤ 18 | ≤ 2 64 QAM | > 5 | > 4 | > 8 | > 12 | > 16 | > 18 | ≤ 3 256 QAM | ≥ 1 | ≤ 5
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)
Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes, when operating in Proximity sensors/receiver/hotspot detect mechanism, head/body -worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 15.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 15.
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 4 carriers in the downlink and 2 carriers in the uplink.

Transmission (H, M, L) channel numbers and frequencies in each LTE band

LTE Band 2

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900

LTE Band 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 26

	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5

LTE Band 38

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

LTE Band 41

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

LTE Band 42

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

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 5	Yes	Yes	Yes	Yes		
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 38			Yes	Yes	Yes	Yes
LTE Band 41			Yes	Yes	Yes	Yes

2) LTE Bands tune up:

Band	Antenna	Head	Body-worn	Hotspot	Extremity	Sensor Off	Default
		DSI 2	DSI 3	DSI 7	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 5 Other Path	Ant 0	24	24	24	24	24	24
LTE Band 26(5)	Ant 0	24	24	24	24	24	24
LTE Band 5 Other Path	Ant 4	23.5	22.8	21.2	24	24	24
LTE Band 26(5)	Ant 4	23.5	22.8	21.2	24	24	24
LTE Band 41(38) Other Path	Ant 1	24	24	24	24	24	24
LTE Band 41 PC2 Other Path	Ant 1	27	26.2	25.7	25.7	27	27
LTE Band 41(38)	Ant 1	24	24	24	24	24	24
LTE Band 41 PC2	Ant 1	27	26.2	25.7	25.7	27	27
LTE Band 41(38)	Ant 4	19.8	19	17.5	21.9	24	24
LTE Band 41 PC2	Ant 4	21.4	20.6	19.1	23.5	27	27

5.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz
Channel Bandwidth	The detail please refers to section 5.1 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 n5	LTE B7
LTE Anchor Bands for n41	LTE B5
LTE Anchor Bands for n77	LTE B7/41
LTE Anchor Bands for n78	LTE B5/7/38/41

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

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 26

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

NR Band 38 SCS30KHz

	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 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	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	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664668	3970.02	664334	3965.01	664000	3960	663668	3955.02	663334	3950.01	663000	3945	662668	3940.02	662334	3935.01	662000	3930

NR Band 78 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		
M	650000	3750	650000	3750	650000	3750	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652834	3792.51	652668	3790.02	652334	3785.01	652000	3780	651668	3775.02	651334	3770.01	651000	3765	650668	3760.02	650334	3755.01		

<For NR Overlap Bands Description>

1) NR Bands BW

Band	5 MHz	10 MHz	15 MHz	20 MHz	25 MHz	30 MHz	40 MHz	50 MHz	60 MHz	70 MHz	80 MHz	90 MHz	100 MHz
FR1 n5	Yes	Yes	Yes	Yes									
FR1 n26	Yes	Yes	Yes	Yes									
FR1 n38		Yes	Yes	Yes		Yes	Yes						
FR1 n41		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FR1 n77		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FR1 n78		Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

2) NR Bands Tune up:

Band	Antenna	Head	Body-worn	Hotspot	Extremity	Sensor Off	Default
		DSI 2	DSI 3	DSI 7	DSI 6	DSI4	
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
5G NR n5	Ant 0	24	24	24	24	24	24
5G NR n26	Ant 0	24	24	24	24	24	24
5G NR n5 main&Other Path	Ant 4	23.2	23.2	21.4	24	24	24
5G NR n26	Ant 4	23.2	23.2	21.4	24	24	24
5G NR n38	Ant 1	24	21.7	21.7	23.2	24	24
5G NR n41 main&Other Path	Ant 1	24	21.7	21.7	23.2	24	24
5G NR n38	Ant 4	18.9	16.8	15.8	20.5	24	24
5G NR n41	Ant 4	18.9	16.8	15.8	20.5	24	24
FR1 n77(78) Part27O PC3 main&Other Path	Ant 5	19.3	17.7	16.7	20.6	24	24
FR1 n77(78) Part27O PC2 main&Other Path	Ant 5	19.3	17.7	16.7	20.6	27	27
FR1 n77(78) Part27O PC3	Ant 3 SRS	21	16	14.6	20.6	20.6	21
FR1 n77(78) Part27O PC2	Ant 3 SRS	24	16	14.6	20.6	20.6	24
FR1 n77(78) Part27O PC3	Ant 7 SRS	19.2	17.4	15.6	21.8	23	23
FR1 n77(78) Part27O PC2	Ant 7 SRS	19.2	17.4	15.6	21.8	26	26
FR1 n77(78) Part27O PC3	Ant 9 SRS	21	21	21	21	21	21
FR1 n77(78) Part27O PC2	Ant 9 SRS	24	23.3	21.9	21.9	21.9	24

6. Smart Transmit feature for RF Exposure compliance

Qualcomm® Smart Transmit™ 3.0 of Smart Transmit (GEN2) Feature operates based on pre-defined sub6 antenna groups (AG). 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) version 20 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.

Antenna Group:

Antenna Group 0 (AG0)	ANT0 & ANT1& ANT9
Antenna Group 1 (AG1)	ANT3 & ANT4 & ANT5 & ANT7

<SAR design target and uncertainty>

Item	Uncertainty dB (k=2)
Total uncertainty	1.5

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 (P_{limit} in EFS file)>

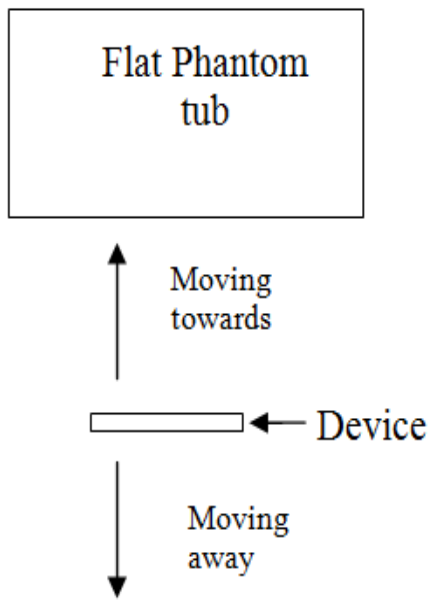
Band	Antenna	Head DSI 2	Body-Worn DSI 3	Hotspot DSI 7	Extremity DSI 6	Sensor off DSI 4	Pmax*
GSM850	Ant 0	30.60	24.30	24.30	23.50	23.50	23.50
GSM1900	Ant 1	33.50	21.40	21.40	20.50	20.50	20.50
WCDMA II	Ant 1	32.20	22.30	20.60	22.30	23.00	23.00
WCDMA V	Ant 0	29.80	23.00	23.00	24.00	23.00	23.00
LTE Band 2	Ant 1	33.10	22.50	20.50	22.50	23.00	23.00
LTE Band 2	Ant 4	18.60	18.00	16.80	21.10	22.00	22.00
LTE Band 5 Other Path	Ant 0	31.30	23.30	23.30	24.60	23.00	23.00
LTE Band 26(5)	Ant 0	31.30	23.30	23.30	24.60	23.00	23.00
LTE Band 5 Other Path	Ant 4	22.50	21.80	20.20	24.50	23.00	23.00
LTE Band 26(5)	Ant 4	22.50	21.80	20.20	24.50	23.00	23.00
LTE Band 7 Other Path	Ant 1	29.90	22.50	20.80	20.80	23.00	23.00
LTE Band 7	Ant 1	29.90	22.50	20.80	20.80	23.00	23.00
LTE Band 7	Ant 4	16.60	15.20	13.70	18.80	23.00	23.00
LTE Band 7 Other PA	Ant 4	16.60	15.20	13.70	18.80	23.00	23.00
LTE Band 41(38) Other Path	Ant 1	30.30	21.60	21.10	21.10	22.40	21.00
LTE Band 41 PC2 Other Path	Ant 1	30.30	21.60	21.10	21.10	22.40	22.40
LTE Band 41(38)	Ant 1	30.30	21.60	21.10	21.10	22.40	21.00
LTE Band 41 PC2	Ant 1	30.30	21.60	21.10	21.10	22.40	22.40
LTE Band 41(38)	Ant 4	16.80	16.00	14.50	18.90	22.40	21.00
LTE Band 41 PC2	Ant 4	16.80	16.00	14.50	18.90	22.40	22.40
LTE Band 42	Ant 5	15.60	15.10	13.70	18.60	21.00	21.00
FR1 n26(5)	Ant 0	32.60	24.80	24.60	23.00	23.00	23.00
FR1 n26(5)	Ant 4	22.20	22.20	20.40	23.00	23.00	23.00
FR1 n5 Other Path	Ant 4	22.20	22.20	20.40	23.00	23.00	23.00
FR1 n7	Ant 1	31.10	22.50	21.50	21.50	23.00	23.00
FR1 n7	Ant 4	18.10	15.60	14.70	18.80	23.00	23.00
FR1 n41(38)	Ant 1	31.40	20.70	20.70	22.20	23.00	23.00
FR1 n41 Other Path	Ant 1	31.40	20.70	20.70	22.20	23.00	23.00
FR1 n41(38)	Ant 4	17.90	15.80	14.80	19.50	23.00	23.00
FR1 n77 (78) Part27O PC3 main&Other Path	Ant 5	18.30	16.70	15.70	19.60	26.00	23.00
FR1 n77 (78) Part27O PC2 main&Other Path	Ant 5	18.30	16.70	15.70	19.60	26.00	26.00
FR1 n77（78） Part27O PC3	Ant 3 SRS	32.30	15.00	13.60	19.60	19.60	20.00
FR1 n77（78） Part27O PC2	Ant 3 SRS	32.30	15.00	13.60	19.60	19.60	23.00
FR1 n77（78） Part27O PC3	Ant 7 SRS	18.20	16.40	14.60	20.80	25.00	22.00
FR1 n77（78） Part27O PC2	Ant 7 SRS	18.20	16.40	14.60	20.80	25.00	25.00
FR1 n77（78） Part27O PC3	Ant 9 SRS	32.70	22.30	20.90	20.90	20.90	20.00
FR1 n77（78） Part27O PC2	Ant 9 SRS	32.70	22.30	20.90	20.90	20.90	23.00

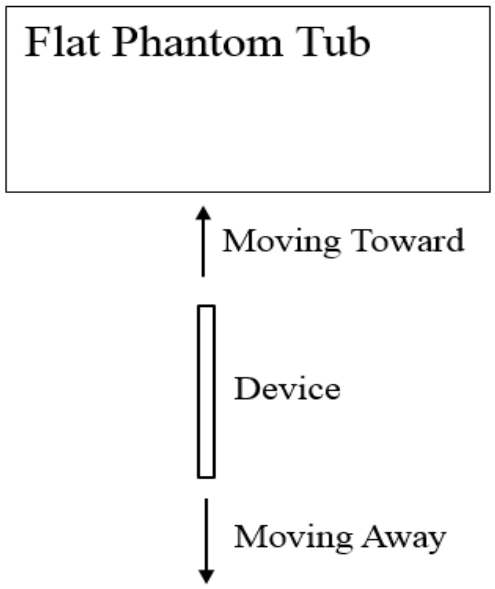
Note:
1) *Pmax is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1.0 dB device uncertainty.
2) All Plimit power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD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

7. Proximity Sensor Triggering Test

<Proximity Sensor Triggering Distance>:

1. Proximity sensor triggering distance testing was performed according to the procedures outlined in KDB 616217 D04 section 6.2, and EUT moving further away from the flat phantom and EUT moving toward the flat phantom were both assessed and the tissue-equivalent medium for highest frequency (7125MHz) and lowest (850MHz) frequency was used for proximity sensor triggering testing.
2. Capacitive proximity sensors placed coincident with antenna elements at the top and bottom ends of the phone are utilized to determine when the device comes in proximity of the user's body at the front or back of the device.
3. The output power will reduce to body worn power level when top and bottom sensor pad be detected.
4. The sensors used to detect the proximity of the user's body at the front or back surface of the device use a detection threshold distance. The data shown in the sections below shows the distance(s). When front or back body worn condition is detected reduced power will be active.
5. The device employs proximity sensors also can detect the presence of the user's a finger or hand when handheld state at the front/back/top/bottom/left/right sides of the device. When front/back/top/bottom/left/right sides of handheld condition is detected reduced power will be active.
6. For verification of compliance of power reduction scheme, additional SAR testing with EUT transmitting at full RF power at a conservative trigger distance -1mm was performed:





Sensor/Handheld detection test set-up, Front and Back sides	Handheld detection test set-up, Left Side, Right Side, Bottom Side and Top Side

<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	18	23	19	24

<Handheld for ANT 1>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	7	12	7	13	10	16

<Handheld for ANT4>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Left Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	16	21	18	23	16	21	17	22

<Handheld for ANT5>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	11	16	16	21	9	14	15	20

<Handheld for ANT7>

Proximity Sensor Triggering Distance (mm)						
Position	Front		Back		Right Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	11	6	15	12	18

<Handheld for ANT6+8&ANT5+8>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Top Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	11	6	15	9	14	15	20

8. RF Exposure Limits

8.1 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.

8.2 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.

9. Specific Absorption Rate (SAR)

9.1 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.

9.2 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:

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

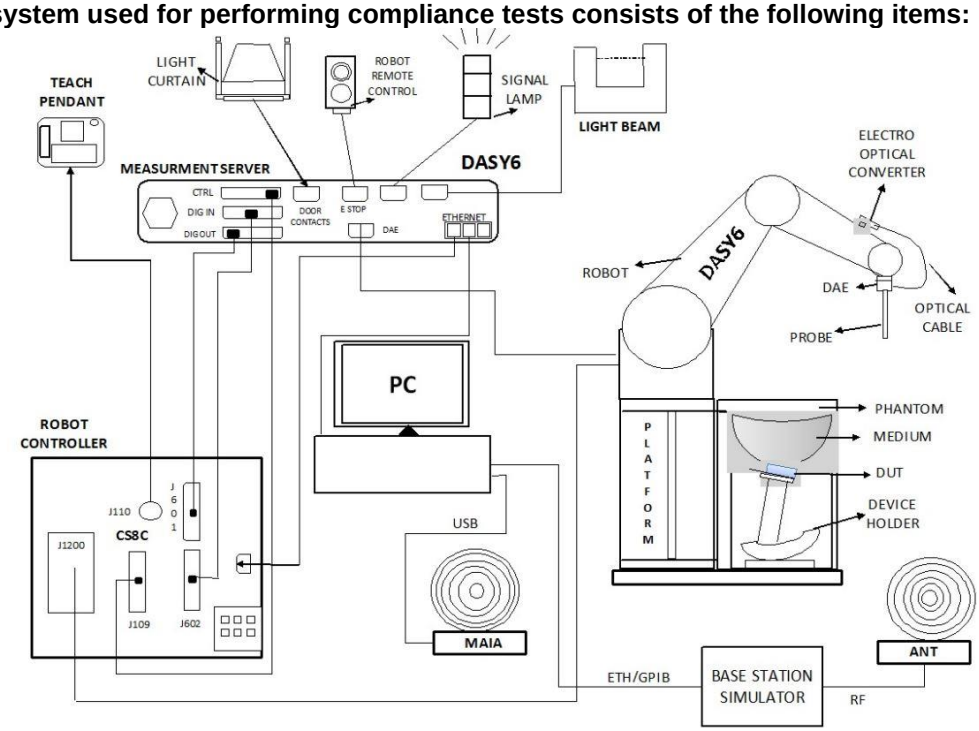
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

10. System Description and Setup

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



- A standard high precision 6-axis robot with controller, teach pendant and software. An arm extension for accommodating the data acquisition electronics (DAE).
- An isotropic Field probe optimized and calibrated for the targeted measurement.
- A data acquisition electronics (DAE) which performs the signal amplification, signal multiplexing, AD-conversion, offset measurements, mechanical surface detection, collision detection, etc. The unit is battery powered with standard or rechargeable batteries. The signal is optically transmitted to the EOC.
- The Electro-optical converter (EOC) performs the conversion from optical to electrical signals for the digital communication to the DAE. To use optical surface detection, a special version of the EOC is required. The EOC signal is transmitted to the measurement server.
- The function of the measurement server is to perform the time critical tasks such as signal filtering, control of the robot operation and fast movement interrupts.
- The Light Beam used is for probe alignment. This improves the (absolute) accuracy of the probe positioning.
- A computer running Win7 or Win10 and the DASY5 or DASY6 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.

10.1 E-Field Probe

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

<EX3DV4 Probe>

Construction	Symmetric design with triangular core Built-in shielding against static charges PEEK enclosure material (resistant to organic solvents, e.g., DGBE)	
Frequency	4 MHz – 10 GHz Linearity: ±0.2 dB (30 MHz – 10 GHz)	
Directivity	±0.3 dB in TSL (rotation around probe axis) ±0.5 dB in TSL (rotation normal to probe axis)	
Dynamic Range	10 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	

10.2 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.

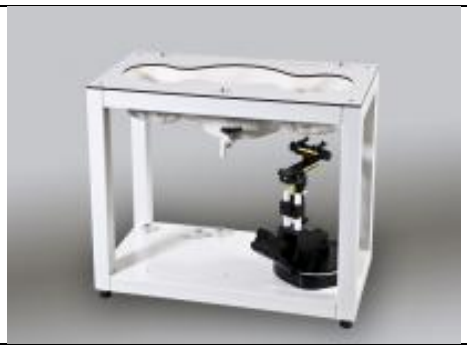
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

10.3 Phantom

<SAM Twin Phantom>

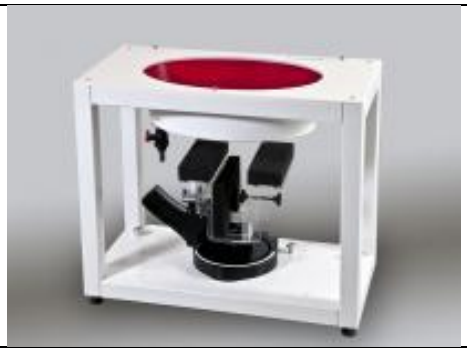
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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.

10.4 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

11. 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

11.1 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

11.2 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.

11.3 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	½·δ·ln(2) ± 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.	

11.4 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	$\leq 1.5 \cdot \Delta z_{Zoom}(n-1)$	
Minimum zoom scan volume	x, y, z		≥ 30 mm	3 – 4 GHz: ≥ 28 mm 4 – 5 GHz: ≥ 25 mm 5 – 6 GHz: ≥ 22 mm

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.

11.5 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.

11.6 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.

12. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	835MHz System Validation Kit	D835V2	4d091	2022/8/19	2025/8/18
SPEAG	1900MHz System Validation Kit	D1900V2	5d118	2022/3/30	2025/3/28
SPEAG	2450MHz System Validation Kit	D2450V2	1095	2024/2/8	2025/2/7
SPEAG	2600MHz System Validation Kit	D2600V2	1112	2023/12/18	2024/12/17
SPEAG	3500MHz System Validation Kit	D3500V2	1037	2023/11/20	2024/11/19
SPEAG	3700MHz System Validation Kit	D3700V2	1008	2023/11/20	2024/11/19
SPEAG	3900MHz System Validation Kit	D3900V2	1048	2023/3/9	2026/3/8
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	2022/9/23	2025/9/22
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1031	2023/2/22	2026/2/21
SPEAG	Data Acquisition Electronics	DAE4	1650	2023/9/13	2024/9/12
SPEAG	Data Acquisition Electronics	DAE4	1303	2023/11/20	2024/11/19
SPEAG	Data Acquisition Electronics	DAE4	1649	2024/7/3	2025/7/2
SPEAG	Dosimetric E-Field Probe	EX3DV4	3857	2024/1/22	2025/1/21
SPEAG	Dosimetric E-Field Probe	EX3DV4	7764	2023/10/5	2024/10/4
SPEAG	Dosimetric E-Field Probe	EX3DV4	7706	2024/1/24	2025/1/23
SPEAG	SAM Twin Phantom	SAM Twin	TP-1754	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	TP-2022	NCR	NCR
SPEAG	SAM Twin Phantom	SAM Twin	TP-2024	NCR	NCR
Testo	Thermo-Hygrometer	608-H1	1241332126	2024/7/4	2025/7/3
Testo	Thermo-Hygrometer	HTC-1	55009	2024/1/4	2025/1/3
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Rohde & Schwarz	Signal Generator	SMB100A	100455	2024/1/2	2025/1/1
Keysight	Preamplifier	83017A	MY57280106	2024/4/18	2025/4/17
Anritsu	Radio Communication Analyzer	MT8821C	6262306175	2024/7/4	2025/7/3
Agilent	ENA Series Network Analyzer	E5071C	MY46112129	2024/7/4	2025/7/3
SPEAG	Dielectric Probe Kit	DAK-3.5	1144	2023/8/17	2024/8/16
SPEAG	Dielectric Probe Kit	DAK-3.5	1071	2024/2/19	2025/2/18
Anritsu	Vector Signal Generator	MG3710A	6201682672	2024/1/2	2025/1/1
Rohde & Schwarz	Power Meter	NRVD	102081	2024/7/4	2025/7/3
Rohde & Schwarz	Power Sensor	NRV-Z5	100538	2024/7/4	2025/7/3
Rohde & Schwarz	Power Sensor	NRV-Z5	100539	2024/7/4	2025/7/3
Rohde & Schwarz	Power Sensor	NRP50S	101385	2023/10/11	2024/10/10
R&S	BLUETOOTH TESTER	CBT	100641	2024/1/2	2025/1/1
Rohde & Schwarz	Spectrum Analyzer	FSV7	101631	2023/10/11	2024/10/10
TES	DIGITAC THERMOMETER	TYPE-K	220305411	2024/1/4	2025/1/3
ARRA	Power Divider	A3200-2	N/A	Note 1	
MCL	Attenuation1	BW-S10W5+	N/A	Note 1	
MCL	Attenuation2	BW-S10W5+	N/A	Note 1	
MCL	Attenuation3	BW-S10W5+	N/A	Note 1	
BONN	POWER AMPLIFIER	BLMA 0830-3	087193A	Note 1	
BONN	POWER AMPLIFIER	BLMA 2060-2	087193B	Note 1	
Agilent	Dual Directional Coupler	778D	20500	Note 1	
Agilent	Dual Directional Coupler	11691D	MY48151020	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
ATM	Dual Directional Coupler	C122H-10	P610410z-02	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.

13. System Verification

13.1 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.

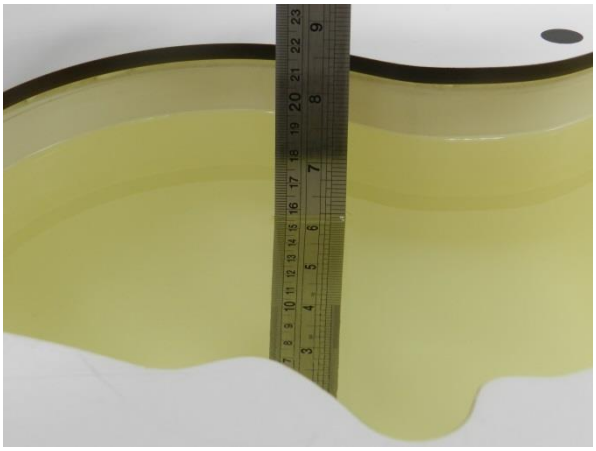


Fig 11.1 Photo of Liquid Height for Head SAR

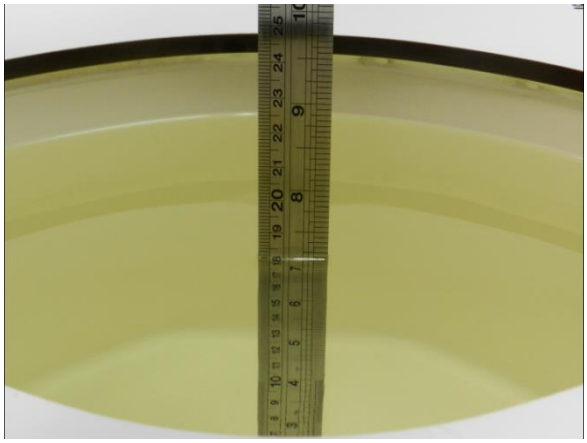


Fig 11.2 Photo of Liquid Height for Body SAR

13.2 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	22.8	0.925	42.400	0.89	41.90	3.93	1.19	±5	2024/7/22
835	Head	22.6	0.911	42.700	0.90	41.50	1.22	2.89	±5	2024/7/24
1750	Head	22.9	1.380	40.000	1.37	40.10	0.73	-0.25	±5	2024/7/26
1900	Head	22.8	1.400	41.400	1.40	40.00	0.00	3.50	±5	2024/7/27
2600	Head	22.7	1.930	37.500	1.96	39.00	-1.53	-3.85	±5	2024/7/28
3500	Head	22.7	2.850	38.600	2.91	37.90	-2.06	1.85	±5	2024/7/30
750	Head	22.6	0.872	41.200	0.89	41.90	-2.02	-1.67	±5	2024/8/1
835	Head	22.7	0.920	40.600	0.90	41.50	2.22	-2.17	±5	2024/8/3
1750	Head	22.9	1.390	38.500	1.37	40.10	1.46	-3.99	±5	2024/8/5
1900	Head	22.8	1.450	39.900	1.40	40.00	3.57	-0.25	±5	2024/8/6
2600	Head	22.6	1.960	37.400	1.96	39.00	0.00	-4.10	±5	2024/8/8
3500	Head	22.8	2.790	39.600	2.91	37.90	-4.12	4.49	±5	2024/8/9
2450	Head	22.7	1.790	40.800	1.80	39.20	-0.56	4.08	±5	2024/8/11
5250	Head	22.5	4.570	35.500	4.71	35.90	-2.97	-1.11	±5	2024/8/12
5600	Head	22.6	4.950	34.800	5.07	35.50	-2.37	-1.97	±5	2024/8/12
5750	Head	22.8	5.130	34.600	5.22	35.40	-1.72	-2.26	±5	2024/8/12
6500	Head	22.8	6.16	34.6	6.07	34.50	1.48	0.29	±5	2024/8/10

<Spot Check 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
835	Head	22.7	0.902	41.240	0.90	41.50	0.22	-0.63	±5	2024/8/2
1900	Head	22.7	1.397	39.035	1.40	40.00	-0.21	-2.41	±5	2024/8/4
2600	Head	22.7	1.926	38.230	1.96	39.00	-1.73	-1.97	±5	2024/8/5
3500	Head	22.8	2.784	38.912	2.91	37.90	-4.33	2.67	±5	2024/8/7
3700	Head	22.8	2.988	38.360	3.12	37.70	-4.23	1.75	±5	2024/8/7
3900	Head	22.8	3.171	38.038	3.32	37.50	-4.49	1.43	±5	2024/8/7
835	Head	22.7	0.912	41.936	0.90	41.50	1.33	1.05	±5	2024/8/8
1900	Head	22.7	1.407	40.199	1.40	40.00	0.50	0.50	±5	2024/8/10
2600	Head	22.7	2.030	40.355	1.96	39.00	3.57	3.47	±5	2024/8/11
3500	Head	22.8	2.813	38.735	2.91	37.90	-3.33	2.20	±5	2024/8/13
3700	Head	22.8	2.991	38.382	3.12	37.70	-4.13	1.81	±5	2024/8/13
3900	Head	22.8	3.175	38.058	3.32	37.50	-4.37	1.49	±5	2024/8/13
2450	Head	22.8	1.744	39.267	1.80	39.20	-3.11	0.17	±5	2024/8/13
5250	Head	22.8	4.573	35.720	4.71	35.90	-2.91	-0.50	±5	2024/8/14
5600	Head	22.8	4.997	35.371	5.07	35.50	-1.44	-0.36	±5	2024/8/15
5750	Head	22.8	5.105	34.869	5.22	35.40	-2.20	-1.50	±5	2024/8/16
6500	Head	22.8	6.16	34.6	6.07	34.50	1.48	0.29	±5	2024/8/10
835	Head	22.7	0.911	42.700	0.90	41.50	1.22	2.89	±5	2024/8/17
1900	Head	22.7	1.400	41.400	1.40	40.00	0.00	3.50	±5	2024/8/17
2450	Head	22.7	1.83	37.5	1.80	39.20	1.67	-4.34	±5	2024/8/17
2600	Head	22.9	1.930	38.200	1.96	39.00	-1.53	-2.05	±5	2024/8/18
3500	Head	22.9	2.800	39.000	2.91	37.90	-3.78	2.90	±5	2024/8/18
3900	Head	22.9	3.280	37.600	3.32	37.50	-1.20	0.27	±5	2024/8/18
5250	Head	22.7	4.680	36.700	4.71	35.90	-0.64	2.23	±5	2024/8/19
5600	Head	22.7	5.000	35.300	5.07	35.50	-1.38	-0.56	±5	2024/8/19
5750	Head	22.7	5.120	34.100	5.22	35.40	-1.92	-3.67	±5	2024/8/19

13.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2024/7/22	750	Head	50	1087	7764	1303	0.452	8.58	9.04	5.36
2024/7/24	835	Head	50	4d091	7764	1303	0.508	9.45	10.16	7.51
2024/7/26	1750	Head	50	1090	7764	1303	1.840	37.00	36.8	-0.54
2024/7/27	1900	Head	50	5d118	7764	1303	2.030	39.30	40.6	3.31
2024/7/28	2600	Head	50	1112	7764	1303	2.860	55.10	57.2	3.81
2024/7/30	3500	Head	50	1037	7764	1303	3.480	65.40	69.6	6.42
2024/8/1	750	Head	50	1087	7764	1303	0.424	8.58	8.48	-1.17
2024/8/3	835	Head	50	4d091	7764	1303	0.503	9.45	10.06	6.46
2024/8/5	1750	Head	50	1090	7764	1303	1.860	37.00	37.2	0.54
2024/8/6	1900	Head	50	5d118	7764	1303	2.010	39.30	40.2	2.29
2024/8/8	2600	Head	50	1112	7764	1303	2.830	55.10	56.6	2.72
2024/8/9	3500	Head	50	1037	7764	1303	3.450	65.40	69	5.50
2024/8/11	2450	Head	50	1095	7764	1303	2.800	52.60	56	6.46
2024/8/12	5250	Head	50	1113	7764	1303	4.170	81.50	83.4	2.33
2024/8/12	5600	Head	50	1113	7764	1303	4.340	82.60	86.8	5.08
2024/8/12	5750	Head	50	1113	7764	1303	3.900	80.80	78	-3.47
2024/8/10	6500	Head	50	1031	7764	1303	13.8	297.00	276	-7.07

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2024/7/22	750	Head	50	1087	7764	1303	0.305	5.65	6.1	7.96
2024/7/24	835	Head	50	4d091	7764	1303	0.328	6.22	6.56	5.47
2024/7/26	1750	Head	50	1090	7764	1303	1.030	19.50	20.6	5.64
2024/7/27	1900	Head	50	5d118	7764	1303	1.060	20.40	21.2	3.92
2024/7/28	2600	Head	50	1112	7764	1303	1.310	24.80	26.2	5.65
2024/7/30	3500	Head	50	1037	7764	1303	1.270	24.70	25.4	2.83
2024/8/1	750	Head	50	1087	7764	1303	0.287	5.65	5.74	1.59
2024/8/3	835	Head	50	4d091	7764	1303	0.323	6.22	6.46	3.86
2024/8/5	1750	Head	50	1090	7764	1303	1.020	19.50	20.4	4.62
2024/8/6	1900	Head	50	5d118	7764	1303	1.020	20.40	20.4	0.00
2024/8/8	2600	Head	50	1112	7764	1303	1.270	24.80	25.4	2.42
2024/8/9	3500	Head	50	1037	7764	1303	1.250	24.70	25	1.21
2024/8/11	2450	Head	50	1095	7764	1303	1.310	24.70	26.2	6.07
2024/8/12	5250	Head	50	1113	7764	1303	1.230	23.30	24.6	5.58
2024/8/12	5600	Head	50	1113	7764	1303	1.260	23.70	25.2	6.33
2024/8/12	5750	Head	50	1113	7764	1303	1.140	23.00	22.8	-0.87
2024/8/10	6500	Head	50	1031	7764	1303	2.59	54.80	51.8	-5.47

<Spot Check>

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2024/8/2	835	Head	50	4d091	3857	1650	0.461	9.45	9.22	-2.43
2024/8/4	1900	Head	50	5d118	3857	1650	2.020	39.30	40.4	2.80
2024/8/5	2600	Head	50	1112	3857	1650	2.630	55.10	52.6	-4.54
2024/8/7	3500	Head	50	1037	3857	1650	3.030	65.40	60.6	-7.34
2024/8/7	3700	Head	50	1008	3857	1650	3.300	67.20	66	-1.79
2024/8/7	3900	Head	50	1048	3857	1650	3.270	69.10	65.4	-5.35
2024/8/8	835	Head	50	4d091	3857	1650	0.477	9.45	9.54	0.95
2024/8/10	1900	Head	50	5d118	3857	1650	1.810	39.30	36.2	-7.89
2024/8/11	2600	Head	50	1112	3857	1650	2.690	55.10	53.8	-2.36
2024/8/13	3500	Head	50	1037	3857	1650	3.120	65.40	62.4	-4.59
2024/8/13	3700	Head	50	1008	3857	1650	3.250	67.20	65	-3.27
2024/8/13	3900	Head	50	1048	3857	1650	3.650	69.10	73	5.64
2024/8/13	2450	Head	50	1095	3857	1650	2.670	52.60	53.4	1.52
2024/8/14	5250	Head	50	1113	3857	1650	4.170	81.50	83.4	2.33
2024/8/15	5600	Head	50	1113	3857	1650	4.420	82.60	88.4	7.02
2024/8/16	5750	Head	50	1113	3857	1650	4.080	80.80	81.6	0.99
2024/8/10	6500	Head	50	1031	7764	1303	13.8	297.00	276	-7.07
2024/8/17	835	Head	50	4d091	7706	1649	0.495	9.45	9.9	4.76
2024/8/17	1900	Head	50	5d118	7706	1649	2.060	39.30	41.2	4.83
2024/8/17	2450	Head	50	1095	7706	1649	2.720	52.60	54.4	3.42
2024/8/18	2600	Head	50	1112	7706	1649	2.710	55.10	54.2	-1.63
2024/8/18	3500	Head	50	1037	7706	1649	3.220	65.40	64.4	-1.53
2024/8/18	3900	Head	50	1048	7706	1649	3.510	69.10	70.2	1.59
2024/8/19	5250	Head	50	1113	7706	1649	4.160	81.50	83.2	2.09
2024/8/19	5600	Head	50	1113	7706	1649	3.900	82.60	78	-5.57
2024/8/19	5750	Head	50	1113	7706	1649	3.770	80.80	75.4	-6.68

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2024/8/2	835	Head	50	4d091	3857	1650	0.307	6.22	6.14	-1.29
2024/8/4	1900	Head	50	5d118	3857	1650	1.070	20.40	21.4	4.90
2024/8/5	2600	Head	50	1112	3857	1650	1.200	24.80	24	-3.23
2024/8/7	3500	Head	50	1037	3857	1650	1.180	24.70	23.6	-4.45
2024/8/7	3700	Head	50	1008	3857	1650	1.240	24.40	24.8	1.64
2024/8/7	3900	Head	50	1048	3857	1650	1.150	24.10	23	-4.56
2024/8/8	835	Head	50	4d091	3857	1650	0.313	6.22	6.26	0.64
2024/8/10	1900	Head	50	5d118	3857	1650	0.958	20.40	19.16	-6.08
2024/8/11	2600	Head	50	1112	3857	1650	1.240	24.80	24.8	0.00
2024/8/13	3500	Head	50	1037	3857	1650	1.200	24.70	24	-2.83
2024/8/13	3700	Head	50	1008	3857	1650	1.210	24.40	24.2	-0.82
2024/8/13	3900	Head	50	1048	3857	1650	1.230	24.10	24.6	2.07
2024/8/13	2450	Head	50	1095	3857	1650	1.260	24.70	25.2	2.02
2024/8/14	5250	Head	50	1113	3857	1650	1.220	23.30	24.4	4.72
2024/8/15	5600	Head	50	1113	3857	1650	1.200	23.70	24	1.27
2024/8/16	5750	Head	50	1113	3857	1650	1.180	23.00	23.6	2.61
2024/8/10	6500	Head	50	1031	7764	1303	2.59	54.80	51.8	-5.47
2024/8/17	835	Head	50	4d091	7706	1649	0.331	6.22	6.62	6.43
2024/8/17	1900	Head	50	5d118	7706	1649	1.090	20.40	21.8	6.86
2024/8/17	2450	Head	50	1095	7706	1649	1.300	24.70	26	5.26
2024/8/18	2600	Head	50	1112	7706	1649	1.250	24.80	25	0.81
2024/8/18	3500	Head	50	1037	7706	1649	1.260	24.70	25.2	2.02
2024/8/18	3900	Head	50	1048	7706	1649	1.270	24.10	25.4	5.39
2024/8/19	5250	Head	50	1113	7706	1649	1.210	23.30	24.2	3.86
2024/8/19	5600	Head	50	1113	7706	1649	1.120	23.70	22.4	-5.49
2024/8/19	5750	Head	50	1113	7706	1649	1.080	23.00	21.6	-6.09

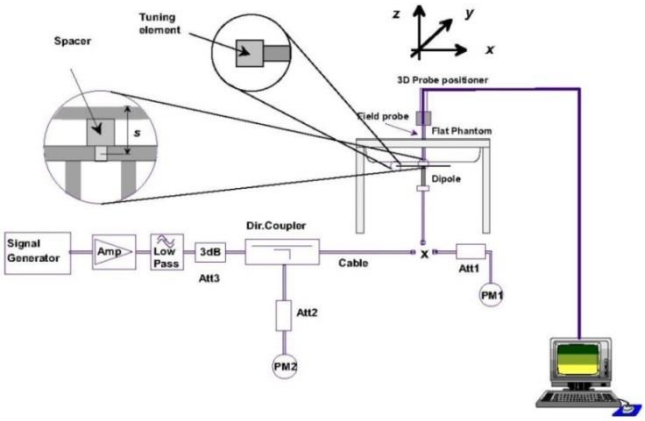


Fig 11.3.1 System Performance Check Setup

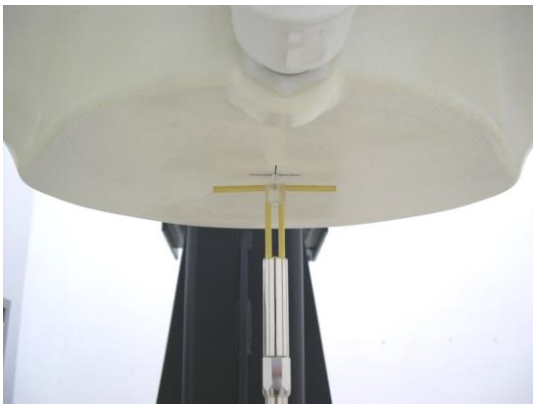


Fig 11.3.2 Setup Photo

14. RF Exposure Positions

14.1 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.

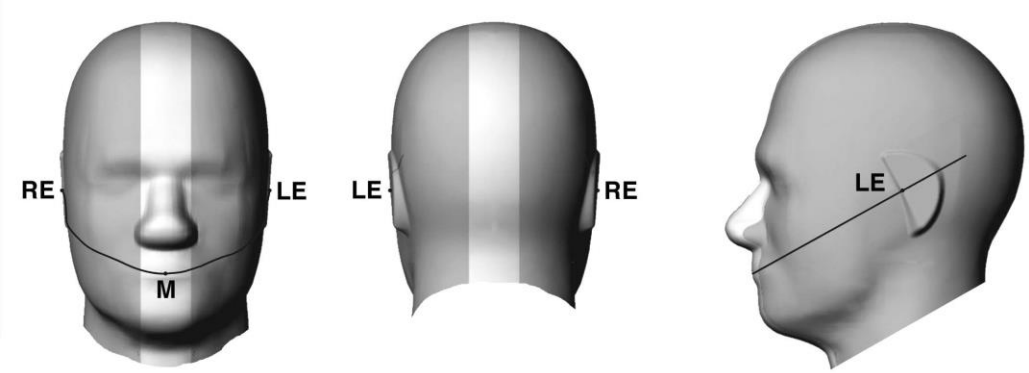


Fig 12.1.1 Front, back, and side views of SAM twin phantom

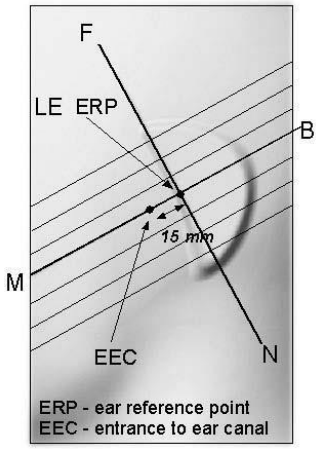


Fig 12.1.2 Close-up side view of phantom showing the ear region.

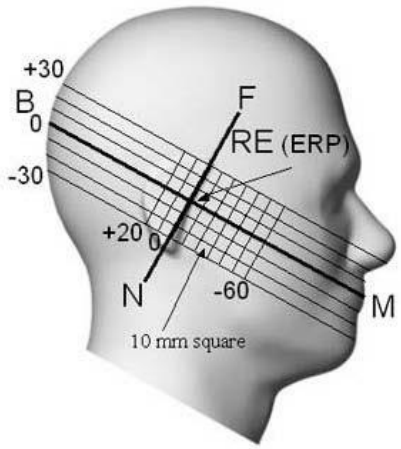


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

14.2 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.

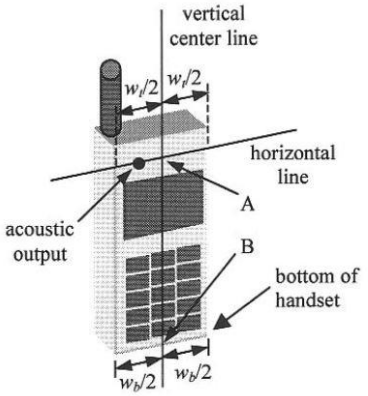


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

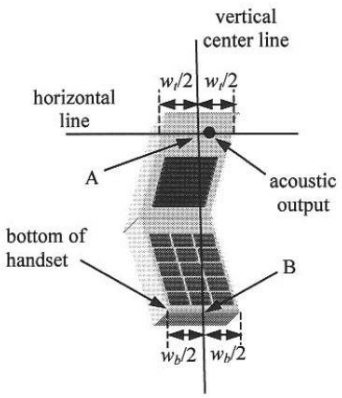


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

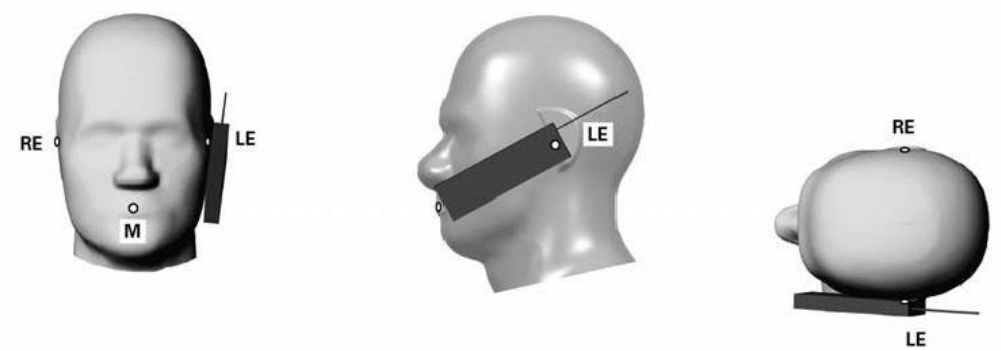


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

14.3 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

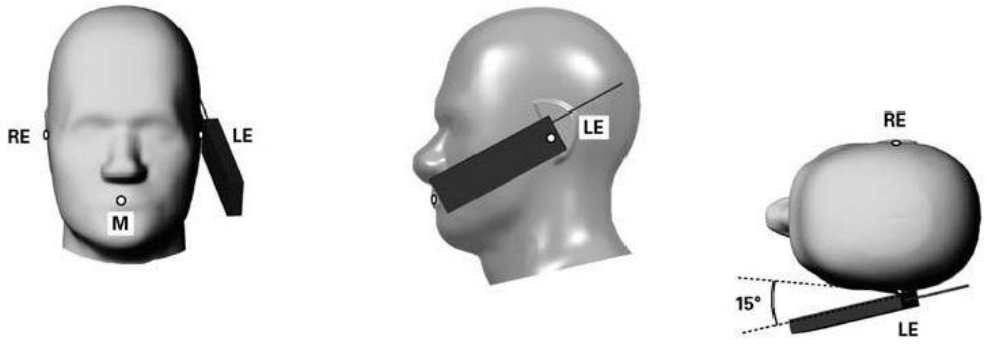


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

14.4 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.

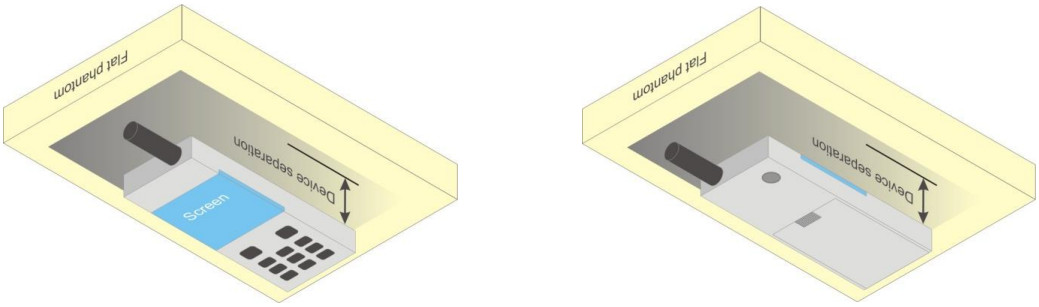


Fig 12.4 Body Worn Position

14.5 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.

14.6 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.

15. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

<WCDMA Conducted Power>

1. The following tests were conducted according to the test requirements outlines in 3GPP TS 34.121 specification.
2. The procedures in KDB 941225 D01v03r01 are applied for 3GPP Rel. 6 HSPA to configure the device in the required sub-test mode(s) to determine SAR test exclusion.
3. For 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 Agilent E5515C 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	Processes	6
Information Bit Payload (N_{INF})	Bits	120
Number Code Blocks	Blocks	1
Binary Channel Bits Per TTI	Bits	960
Total Available SML's in UE	SML's	19200
Number of SML's per HARQ Proc.	SML's	3200
Coding Rate		0.15
Number of Physical Channel Codes	Codes	1
Modulation		QPSK
Note 1: The RMC is intended to be used for DC-HSDPA mode and both cells shall transmit with identical parameters as listed in the table. Note 2: Maximum number of transmission is limited to 1, i.e., retransmission is not allowed. The redundancy and constellation version 0 shall be used.		

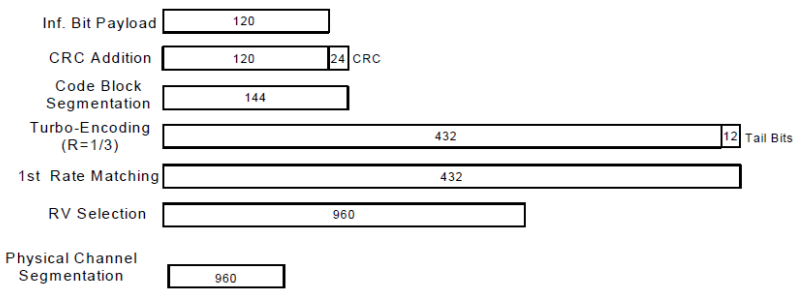


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

<WCDMA Conducted Power>

General Note:

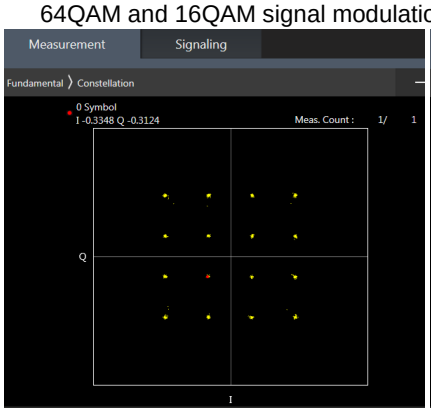
1. Per KDB 941225 D01v03r01, for SAR testing is measured using a 12.2 kbps RMC with TPC bits configured to all "1's".
2. Per KDB 941225 D01v03r01, RMC 12.2kbps setting is used to evaluate SAR. The maximum output power and tune-up tolerance specified for production units in HSDPA / HSUPA / DC-HSDPA is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

<LTE Conducted Power>

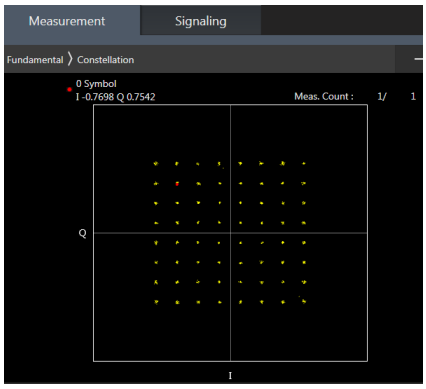
General Note:

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 B5 / B26 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
9. LTE B5 / B38 SAR test was covered by B26 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
    a. the maximum output power, including tolerance, for the smaller band is ≤ 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

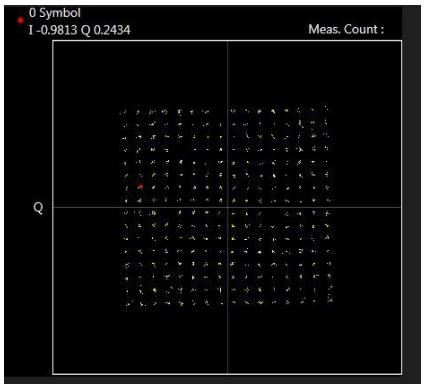
10. According to May 2017 TCB workshop, for 16QAM and 64QAM, 256QAM should be verified by checking the signal constellation with a call box to avoid incorrect maximum power levels due to MPR and other requirements associated with signal modulation, and the following figure is taken from the "Fundamental 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.

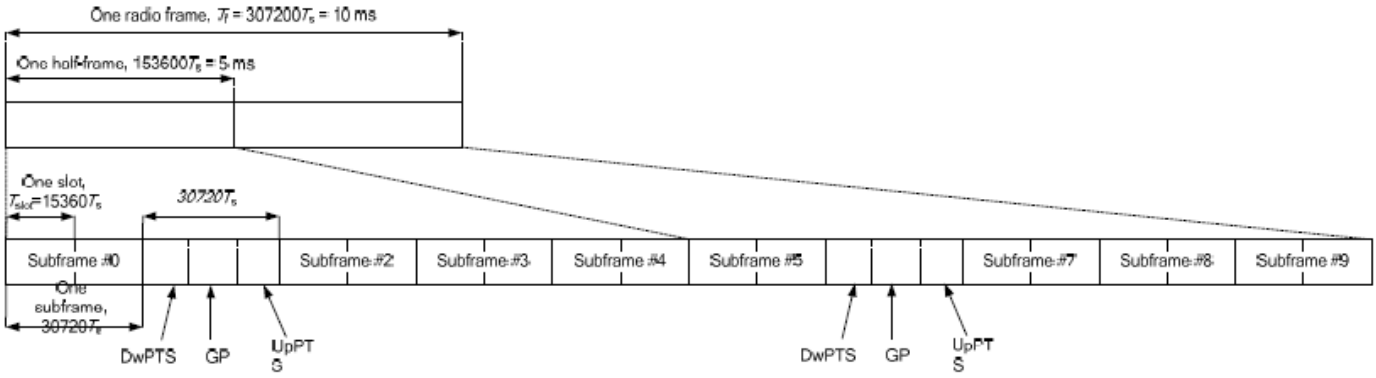


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

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 ($30720 \cdot T_s$): 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($30720 \cdot T_s$): 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>

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

General Note:

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

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation				4CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	CA_38C	38		1	CA_41A-41A-41A	41		1	CA_41A-41A-41C	41	
2	CA_41A-41A	41	3CC-1	2	CA_41A-41C	41	4CC-1	2	CA_41A-41D	41	
3	CA_41A-42A	41,42		3	CA_41A-42C	41,42		3	CA_41C-41C	41	
4	CA_41C	41	3CC-2	4	CA_41C-42A	41,42		4	CA_41C-42C	41,42	
5	CA_42C	42	3CC-3	5	CA_41D	41	4CC-2	5	CA_41E	41	
6	CA_5A-7A	7		6	CA_42D	42		6	CA_42E	42	
7	CA_7A-26A	7		7				7			
8	CA_7A-7A	7		8				8			
9	CA_7B	7		9				9			
10	CA_7C	7		10				10			

LTE Carrier Aggregation Conducted Power (Downlink)

i. According to KDB941225 D05A v01r02, Uplink maximum output power measurement with downlink carrier aggregation active should be measured, using the highest output channel measured without downlink carrier aggregation, to confirm that uplink maximum output power with downlink carrier aggregation active remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output measured without downlink carrier aggregation active.

ii. Uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

iii. The device supports downlink four carrier aggregation. For power measurement were control and acknowledge data is sent on uplink channels that operate identical to specifications when downlink carrier aggregation is inactive.

iv. Selected highest measured power when downlink carrier aggregation is inactive for conducted power comparison with downlink carrier aggregation is active, to confirm that when downlink carrier aggregation is active uplink maximum output power remains within the specified tune-up tolerance limits and not more than ¼ dB higher than the maximum output power measured when downlink carrier aggregation inactive.

v. For inter-band CA, the SCC selected highest bandwidth and near the middle of its transmission band. For SCC DL RB size and offset will base on the PCC corresponding RB allocation.

vi. For non-contiguous intra-band CA, the SCC selected to provide maximum separation from the PCC and must remain fully within the downlink transmission band.

vii. For Intra-band, contiguous CA, the downlink channels selected to perform the uplink power measurement must satisfy 3GPP channel spacing (5.4.1A of 3GPP TS 36.521 or equivalent) and channel bandwidth (5.4.2A) requirements.

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

LTE 4x4 MIMO (Downlink)

This device supports downlink 4x4 MIMO operations for LTE Band 7/38/41/42 only. Uplink transmission is limited to a single output stream. Power measurements were performed with downlink 4x4 MIMO active for the configuration with highest measured maximum conducted power with 4x4 downlink MIMO inactive measured among the channel bandwidth, modulation, and RB combinations in each frequency band.

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

4X4 MIMO	Band
	LTE Band 7/38/41/42

LTE Carrier Aggregation Conducted Power (Uplink)

LTE Uplink CA Intra-band	2CC Uplink Carrier Aggregation
CA_7C	Ant1
CA_38C	Ant1
CA_41C	Ant1
CA_42C	Ant5

<Intra-band>

General Note:

i. The device supports intra-band uplink carrier aggregation for LTE B7/38/41/42 with a maximum of two uplink component carriers. For intra band contiguous carrier aggregation scenarios, 3GPP 36.101 table 6.2.2A-1 specifies that the aggregate maximum allowed output power is equivalent to the single carrier scenario. 3GPP 36.101 6.2.3A allows for several dB of MPR to be applied when not-contiguous RB allocation is implemented. The conducted power and MPR setting in this device are permanently implemented pre 3GPP requirement.

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

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

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

<Inter-band uplink carrier aggregation consideration>

LTE Uplink CA Inter-band	2CC Uplink Carrier Aggregation
CA_5A-7A	Ant1+ANT4

General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. The product implements 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. 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 n5/n7/n26/n38/n41/n77/n78 is SA mode.
2. 5G NR n5/n41/n77/n78 is NSA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
5. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
6. 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.
7. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
8. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.

<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 TX	NR TX
DC_7A_n5A	ANT1	ANT4
DC_7A_n77A	ANT1	ANT5
DC_41A_n77A	ANT1	ANT5
DC_5A_n78A	ANT0	ANT5
DC_7A_n78A	ANT1	ANT5
DC_38A_n78A	ANT1	ANT5
DC_41A_n78A	ANT1	ANT5
DC_5A_n41A	ANT4	ANT1

<WLAN Conducted Power>

General Note:

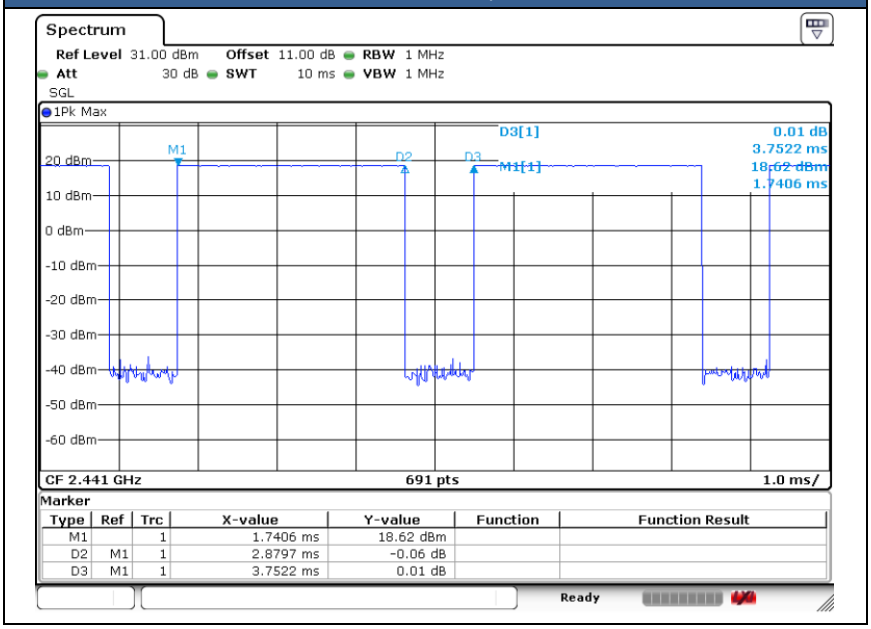
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
3. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
4. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. The 2.4GHz/5GHz WLAN can transmit in MIMO antenna mode only and it has no SISO antenna mode.
7. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.
8. 802.11 ax supports both full tone size mode and partial tone size mode, after verification on partial tone size mode that partial size tone mode power will not be higher than full tone size mode, therefore, full tone mode power was chosen to be measured in this report.

<2.4GHz Bluetooth>

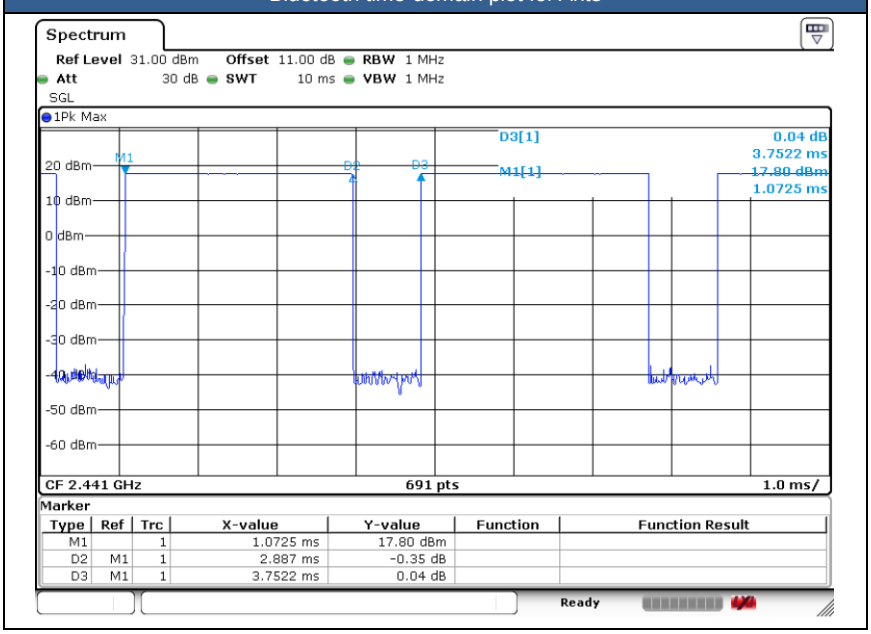
General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.75% for Ant6, 76.94% for Ant8 as following figure, for Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to 83.3% for Bluetooth reported SAR calculation

Bluetooth time-domain plot for Ant6



Bluetooth time-domain plot for Ant8



16. Antenna Location

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

17. Parent single 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 SAR testing of Bluetooth signal with 83.3% theoretical duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle) *83.3%".
   d. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   e. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   f. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/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 proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are 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 when transmit simultaneous with WWAN/BT, power reduction will be activated to head exposure condition. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and extremity exposure conditions.
6. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
   a. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of WCDMA Band II/IV/V, LTE Band 2/4/5/7/25/26/66/38/41/42, 5GNR n2/n7/n66/n78, WLAN2.4GHz/5.2GHz/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.
7. Although the headset SAR is greater than 0.8 W/kg, the headset SAR verified the worst of the non-headset SAR and less than non-headset SAR, so there is no need to be tested other channels.
8. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
9. LTE Band 2/4/7/66/38/41 at ant1, LTE Band 5/26 at ant0, LTE Band 5 at ant4 and 5GNR n7 at ant1/4 and 5GNR n78 at ant5 support different Paths for some antennas, and LTE B2/4 ant1, LTE B4/7/66 ant4 and 5GNR n2/66 at ant1/4 support different PAs for some antennas, and LTE/NR bands support Other PA only under ENDC & UL CA. Some LTE/NR bands support different Pas (or Paths) for some antennas, whether it is the maximum power of Main PA (or Path) is higher than and very close to the other PA (or Path), for RF exposure, after verification all PAs (or Paths) in a same position, so the

worst-case PA (or Path) was chosen to perform full SAR testing to ensure the RF exposure is compliance and other PAs (or Paths) verified the worst case.

10. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
11. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
12. For determination of the scaling factor for report SAR of MIMO mode, if the hot spots are separated the scaling factors are individually determined from each transmit chain. Further simplification chose the worse SAR value and the worst scaling factor from each transmit chain perform reported SAR calculation conservatively. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.
13. For GSM850 at ant 1 and FR1 n78 at Ant 9 distance SAR test at front 17mm/back 18mm is only for simultaneous transmission analysis.
14. Absorbed power density (APD) using a 4cm^2 averaging area is reported based on SAR measurements.

GSM Note:

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

WCDMA Note:

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

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 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 / B38 SAR test was covered by B25 / B66 / B26 / B12 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
    a. the maximum output power, including tolerance, for the smaller band is ≤ 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/n26/n66 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. For WLAN6GHz, per October 2020 TCB Workshop Interim procedures, start instead with a minimum of 5 test channels across the full band, then adapt and apply conducted power and SAR test reduction procedures of KDB Pub. 248227 v02r02.

DSI status description:

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

Exposure Condition	DSI	Trigger Conditions
Head SAR	DSI 2	Receiver on
Body worn SAR	DSI 3	Sensor On
Hotspot SAR	DSI 7	Hotspot On
Extremity (Handheld) SAR	DSI 6	Sensor On
Sensor Off SAR	DSI 4	Sensor Off

17.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
									750MHz											
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	23.02	24.00	1.253	-	-	0.08	0.097	0.122
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.07	23.00	1.239	-	-	0.01	0.000	0.000
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	23.02	24.00	1.253	-	-	0.03	0.000	0.000
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.07	23.00	1.239	-	-	-0.08	0.000	0.000
01	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	23.02	24.00	1.253	-	-	0.04	0.142	**0.178**
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23095	707.5	22.07	23.00	1.239	-	-	-0.08	0.075	0.093
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	23.02	24.00	1.253	-	-	0.1	0.083	0.104
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23095	707.5	22.07	23.00	1.239	-	-	-0.18	0.000	0.000
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	22.94	24.00	1.276	-	-	0.1	0.154	0.197
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	DSI 2	23230	782	22.03	23.00	1.250	-	-	0.12	0.081	0.101
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	22.94	24.00	1.276	-	-	0.08	0.087	0.111
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	DSI 2	23230	782	22.03	23.00	1.250	-	-	-0.17	0.000	0.000
02	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	22.94	24.00	1.276	-	-	0.03	0.205	**0.262**
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	DSI 2	23230	782	22.03	23.00	1.250	-	-	-0.03	0.112	0.140
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	22.94	24.00	1.276	-	-	0.14	0.127	0.162
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	DSI 2	23230	782	22.03	23.00	1.250	-	-	0.11	0.072	0.090
									835MHz											
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Cheek	0mm	Ant 0	DSI 2	189	836.4	26.38	27.50	1.294	-	-	0.18	0.144	0.186
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Tilted	0mm	Ant 0	DSI 2	189	836.4	26.38	27.50	1.294	-	-	0.14	0.065	0.084
03	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	189	836.4	26.38	27.50	1.294	-	-	-0.17	0.194	**0.251**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Tilted	0mm	Ant 0	DSI 2	189	836.4	26.38	27.50	1.294	-	-	0.17	0.107	0.138
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	DSI 2	4182	836.4	23.03	24.00	1.250	-	-	0.08	0.151	0.189
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	DSI 2	4182	836.4	23.03	24.00	1.250	-	-	0.01	0.080	0.100
04	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	4182	836.4	23.03	24.00	1.250	-	-	0.03	0.216	**0.270**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	DSI 2	4182	836.4	23.03	24.00	1.250	-	-	0.03	0.121	0.151
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	23.06	24.00	1.242	-	-	-0.15	0.102	0.127
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	DSI 2	26865	831.5	21.95	23.00	1.274	-	-	0.11	0.062	0.079
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	23.06	24.00	1.242	-	-	-0.08	0.055	0.068
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	DSI 2	26865	831.5	21.95	23.00	1.274	-	-	-0.17	0.000	0.000
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	23.06	24.00	1.242	-	-	-0.08	0.153	0.190
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	21.95	23.00	1.274	-	-	-0.04	0.089	0.113
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	23.06	24.00	1.242	-	-	-0.08	0.084	0.104
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	DSI 2	26865	831.5	21.95	23.00	1.274	-	-	0.17	0.052	0.066
	LTE Band 26 Other Path	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	23.01	24.00	1.256	-	-	0.02	0.119	0.149
	LTE Band 5 Other Path	10M	QPSK	1	0		Left Cheek	0mm	Ant 0	DSI 2	20525	836.5	22.90	24.00	1.288	-	-	0.03	0.105	0.135
05	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	22.10	23.40	1.349	-	-	0.04	0.651	**0.878**
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	21.82	23.00	1.312	-	-	0.08	0.366	0.480
	LTE Band 26	15M	QPSK	75	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	21.69	23.00	1.352	-	-	0.01	0.349	0.472
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	22.10	23.40	1.349	-	-	0.03	0.629	0.848
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	21.82	23.00	1.312	-	-	-0.08	0.350	0.459
	LTE Band 26	15M	QPSK	75	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	21.69	23.00	1.352	-	-	-0.08	0.335	0.453
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	26865	831.5	22.10	23.40	1.349	-	-	0.1	0.405	0.546
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 4	DSI 2	26865	831.5	21.82	23.00	1.312	-	-	-0.18	0.224	0.294
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	26865	831.5	22.10	23.40	1.349	-	-	0.12	0.390	0.526
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 4	DSI 2	26865	831.5	21.82	23.00	1.312	-	-	0.08	0.217	0.285
	LTE Band 5 Other Path	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	20525	836.5	22.28	23.40	1.294	-	-	-0.05	0.644	0.833
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.65	24.00	1.084	-	-	0.08	0.087	0.094

	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.52	24.00	1.117	-	-	-0.17	0.074	0.083
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.65	24.00	1.084	-	-	-0.03	0.047	0.051
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.52	24.00	1.117	-	-	0.14	0.000	0.000
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.65	24.00	1.084	-	-	0.11	0.130	0.141
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.52	24.00	1.117	-	-	-0.05	0.106	0.118
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.65	24.00	1.084	-	-	0.18	0.074	0.080
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 0	DSI 2	166300	831.5	23.52	24.00	1.117	-	-	0.14	0.059	0.066
06	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.98	23.00	1.265	-	-	-0.05	0.695	**0.879**
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.87	23.00	1.297	-	-	0.08	0.672	0.872
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.95	23.00	1.274	-	-	0.01	0.685	0.872
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.98	23.00	1.265	-	-	0.03	0.629	0.796
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.87	23.00	1.297	-	-	-0.08	0.610	0.791
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.98	23.00	1.265	-	-	0.1	0.414	0.524
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.87	23.00	1.297	-	-	-0.18	0.411	0.533
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.98	23.00	1.265	-	-	0.1	0.403	0.510
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.87	23.00	1.297	-	-	0.12	0.384	0.498
1750MHz																				
07	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	1413	1732.6	22.92	24.00	1.282	-	-	-0.08	0.146	**0.187**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	1413	1732.6	22.92	24.00	1.282	-	-	-0.08	0.065	0.083
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	1413	1732.6	22.92	24.00	1.282	-	-	0.1	0.143	0.183
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	1413	1732.6	22.92	24.00	1.282	-	-	-0.18	0.060	0.077
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	22.97	24.00	1.268	-	-	-0.1	0.141	0.179
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	21.89	23.00	1.291	-	-	0.01	0.078	0.101
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	132322	1745	22.97	24.00	1.268	-	-	-0.15	0.065	0.082
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	132322	1745	21.89	23.00	1.291	-	-	0.19	0.000	0.000
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	132322	1745	22.97	24.00	1.268	-	-	0.07	0.135	0.171
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	132322	1745	21.89	23.00	1.291	-	-	-0.18	0.080	0.103
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	132322	1745	22.97	24.00	1.268	-	-	0.03	0.064	0.081
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	132322	1745	21.89	23.00	1.291	-	-	-0.15	0.000	0.000
	LTE Band 66 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	132322	1745	22.91	24.00	1.285	-	-	0.05	0.055	0.071
	LTE Band 4 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	20175	1732.5	22.87	24.00	1.297	-	-	0.02	0.054	0.070
	LTE Band 4 Other PA	20M	QPSK	1	0		Right Cheek	0mm	Ant 1	DSI 2	20175	1732.5	22.91	24.00	1.285			-0.13	0.043	0.055
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	132322	1745	18.14	19.10	1.247	-	-	-0.03	0.647	0.807
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	132072	1720	18.12	19.10	1.253	-	-	0.14	0.694	0.870
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	132572	1770	18.09	19.10	1.262	-	-	0.11	0.620	0.782
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	132322	1745	18.11	19.10	1.256	-	-	-0.05	0.358	0.450
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 2	132322	1745	18.10	19.10	1.259	-	-	-0.17	0.355	0.447
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132322	1745	18.14	19.10	1.247	-	-	0.17	0.652	0.813
08	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132072	1720	18.12	19.10	1.253	-	-	0.01	0.710	**0.890**
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132572	1770	18.09	19.10	1.262	-	-	-0.05	0.623	0.786
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	132322	1745	18.11	19.10	1.256	-	-	0.01	0.352	0.442
	LTE Band 66	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 2	132322	1745	18.10	19.10	1.259	-	-	0.04	0.352	0.443
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	132322	1745	18.14	19.10	1.247	-	-	-0.01	0.377	0.470
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	132322	1745	18.11	19.10	1.256	-	-	0.06	0.215	0.270
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	132322	1745	18.14	19.10	1.247	-	-	0.12	0.430	0.536
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	132322	1745	18.11	19.10	1.256	-	-	0.16	0.246	0.309
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	132072	1720	18.45	19.10	1.161	-	-	0.17	0.684	0.794
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	20050	1720	18.40	19.10	1.175	-	-	-0.08	0.667	0.784
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	23.25	24.00	1.189	-	-	-0.17	0.108	0.128
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	22.87	24.00	1.297	-	-	0.17	0.095	0.123
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	349000	1745	23.25	24.00	1.189	-	-	-0.05	0.059	0.070
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	349000	1745	22.87	24.00	1.297	-	-	0.01	0.048	0.062
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	349000	1745	23.25	24.00	1.189	-	-	0.1	0.096	0.114
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	349000	1745	22.87	24.00	1.297	-	-	-0.17	0.091	0.118
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	349000	1745	23.25	24.00	1.189	-	-	0.04	0.043	0.051

	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	349000	1745	22.87	24.00	1.297	-	-	-0.01	0.048	0.062
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	349000	1745	23.08	24.00	1.236	-	-	0.06	0.012	0.015
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	349000	1745	18.51	19.40	1.227	-	-	0.19	0.702	0.862
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	349000	1745	18.38	19.40	1.265	-	-	0.07	0.664	0.840
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	349000	1745	18.36	19.40	1.271	-	-	-0.18	0.562	0.714
09	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	18.51	19.40	1.227	-	-	-0.09	0.707	**0.868**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	18.38	19.40	1.265	-	-	0.03	0.675	0.854
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	18.36	19.40	1.271	-	-	-0.15	0.568	0.722
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	349000	1745	18.51	19.40	1.227	-	-	-0.15	0.348	0.427
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	349000	1745	18.38	19.40	1.265	-	-	0.11	0.353	0.446
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	349000	1745	18.51	19.40	1.227	-	-	-0.17	0.410	0.503
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	349000	1745	18.38	19.40	1.265	-	-	-0.08	0.420	0.531
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	349000	1745	18.78	19.40	1.153	-	-	-0.09	0.689	0.795
1900MHz																				
10	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Right Cheek	0mm	Ant 1	DSI 2	661	1880	29.14	30.50	1.368	-	-	-0.03	0.047	**0.064**
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Right Tilted	0mm	Ant 1	DSI 2	661	1880	29.14	30.50	1.368	-	-	0.14	0.000	0.000
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Left Cheek	0mm	Ant 1	DSI 2	661	1880	29.14	30.50	1.368	-	-	0.11	0.000	0.000
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Left Tilted	0mm	Ant 1	DSI 2	661	1880	29.14	30.50	1.368	-	-	-0.05	0.000	0.000
11	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	9400	1880	22.81	24.00	1.315	-	-	0.1	0.118	**0.155**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	DSI 2	9400	1880	22.81	24.00	1.315	-	-	0.12	0.078	0.103
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	DSI 2	9400	1880	22.81	24.00	1.315	-	-	0.08	0.113	0.149
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	DSI 2	9400	1880	22.81	24.00	1.315	-	-	-0.17	0.067	0.088
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	22.98	24.00	1.265	-	-	0.13	0.099	0.125
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	21.87	23.00	1.297	-	-	0.12	0.080	0.104
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	26340	1880	22.98	24.00	1.265	-	-	0.03	0.059	0.075
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	26340	1880	21.87	23.00	1.297	-	-	0.18	0.000	0.000
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	26340	1880	22.98	24.00	1.265	-	-	0.16	0.095	0.120
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	26340	1880	21.87	23.00	1.297	-	-	-0.1	0.057	0.074
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	26340	1880	22.98	24.00	1.265	-	-	0.07	0.079	0.100
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	26340	1880	21.87	23.00	1.297	-	-	0.18	0.041	0.053
	LTE Band 2 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	18900	1880	22.88	24.00	1.294	-	-	0.03	0.008	0.010
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	18900	1880	22.90	24.00	1.288	-	-	-0.04	0.004	0.005
12	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26340	1880	18.76	19.40	1.159	-	-	0.01	0.761	**0.882**
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26140	1860	18.68	19.40	1.180	-	-	0.11	0.655	0.773
	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26590	1905	18.71	19.40	1.172	-	-	-0.05	0.749	0.878
	LTE Band 25	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	26340	1880	18.60	19.40	1.202	-	-	-0.08	0.606	0.729
	LTE Band 25	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 2	26340	1880	18.70	19.40	1.175	-	-	0.05	0.610	0.717
	LTE Band 25	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26340	1880	18.76	19.40	1.159	-	-	-0.03	0.610	0.707
	LTE Band 25	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	26340	1880	18.60	19.40	1.202	-	-	0.07	0.483	0.581
	LTE Band 25	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	26340	1880	18.76	19.40	1.159	-	-	0.02	0.466	0.540
	LTE Band 25	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	26340	1880	18.60	19.40	1.202	-	-	0.07	0.391	0.470
	LTE Band 25	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	26340	1880	18.76	19.40	1.159	-	-	-0.06	0.565	0.655
	LTE Band 25	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	26340	1880	18.60	19.40	1.202	-	-	-0.17	0.450	0.541
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376000	1880	23.48	24.00	1.127	-	-	-0.08	0.084	0.095
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376000	1880	23.43	24.00	1.140	-	-	0.05	0.094	0.107
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	376000	1880	23.48	24.00	1.127	-	-	0.06	0.053	0.060
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	376000	1880	23.43	24.00	1.140	-	-	-0.09	0.048	0.055
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	376000	1880	23.48	24.00	1.127	-	-	-0.08	0.080	0.090
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	376000	1880	23.43	24.00	1.140	-	-	0.13	0.086	0.098
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	376000	1880	23.48	24.00	1.127	-	-	0.12	0.047	0.053
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	376000	1880	23.43	24.00	1.140	-	-	0.03	0.052	0.059
	FR1 n2 Other PA	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	376000	1880	23.35	24.00	1.161	-	-	0.05	0.002	0.002
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	376000	1880	19.31	20.20	1.227	-	-	-0.07	0.686	0.842
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	372000	1860	19.22	20.20	1.253	-	-	0.05	0.435	0.545
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	380000	1900	19.16	20.20	1.271	-	-	-0.11	0.406	0.516

	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	376000	1880	19.27	20.20	1.239	-	-	-0.12	0.657	0.814
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	372000	1860	19.18	20.20	1.265	-	-	0.03	0.546	0.691
13	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	380000	1900	19.21	20.20	1.256	-	-	0.03	0.701	**0.880**
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	376000	1880	19.14	20.20	1.276	-	-	-0.16	0.521	0.665
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	376000	1880	19.31	20.20	1.227	-	-	-0.02	0.572	0.702
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	376000	1880	19.27	20.20	1.239	-	-	0.11	0.477	0.591
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	376000	1880	19.31	20.20	1.227	-	-	0.05	0.459	0.563
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	376000	1880	19.27	20.20	1.239	-	-	-0.15	0.381	0.472
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	376000	1880	19.31	20.20	1.227	-	-	0.13	0.511	0.627
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	376000	1880	19.27	20.20	1.239	-	-	0.16	0.444	0.550
	FR1 n2 Other PA	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	380000	1900	19.55	20.20	1.161	-	-	-0.16	0.578	0.671
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	23.03	24.00	1.250	-	-	-0.17	0.211	**0.264**
	LTE Band 7C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	DSI 2	21100+ 21298	2535+ 2554.8	23.01	24.00	1.256	-	-	0.02	0.195	0.245
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	22.00	23.00	1.259	-	-	0.04	0.140	0.176
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	23.03	24.00	1.250	-	-	-0.01	0.061	0.076
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	21100	2535	22.00	23.00	1.259	-	-	-0.08	0.000	0.000
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	23.03	24.00	1.250	-	-	0.05	0.117	0.146
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	21100	2535	22.00	23.00	1.259	-	-	0.06	0.075	0.094
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	23.03	24.00	1.250	-	-	-0.09	0.096	0.120
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	21100	2535	22.00	23.00	1.259	-	-	-0.08	0.061	0.077
	LTE Band 7 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	23.01	24.00	1.256	-	-	0.08	0.176	0.221
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	21100	2535	16.57	17.40	1.211	-	-	0.08	0.577	0.699
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	21100	2535	16.44	17.40	1.247	-	-	-0.08	0.386	0.481
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	16.57	17.40	1.211	-	-	0.1	0.666	0.806
14	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	20850	2510	16.51	17.40	1.227	-	-	0.03	0.723	**0.887**
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	21350	2560	16.40	17.40	1.259	-	-	0.12	0.629	0.792
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	16.44	17.40	1.247	-	-	0.08	0.438	0.546
	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	16.50	17.40	1.230	-	-	0.14	0.436	0.536
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	21100	2535	16.57	17.40	1.211	-	-	0.11	0.323	0.391
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	21100	2535	16.44	17.40	1.247	-	-	0.14	0.205	0.256
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	21100	2535	16.57	17.40	1.211	-	-	0.01	0.398	0.482
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	21100	2535	16.44	17.40	1.247	-	-	0.04	0.261	0.326
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	20850	2510	16.67	17.40	1.183	-	-	-0.08	0.615	0.728
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	23.17	24.00	1.211	62.9	1.006	-0.05	0.119	**0.145**
	LTE Band 41C	20M	QPSK	1	99	-	Right Cheek	0mm	Ant 1	DSI 2	40620+ 40818	2593+ 2612.8	23.13	24.00	1.222	62.9	1.006	0.03	0.102	0.125
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	22.08	23.00	1.236	62.9	1.006	0.18	0.078	0.097
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	23.17	24.00	1.211	62.9	1.006	0.14	0.034	0.041
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	22.08	23.00	1.236	62.9	1.006	-0.17	0.031	0.039
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	23.17	24.00	1.211	62.9	1.006	0.17	0.067	0.082
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	22.08	23.00	1.236	62.9	1.006	-0.05	0.041	0.051
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	23.17	24.00	1.211	62.9	1.006	0.01	0.053	0.065
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	22.08	23.00	1.236	62.9	1.006	0.1	0.039	0.048
	LTE Band 41 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	23.11	24.00	1.227	62.9	1.006	0.03	0.038	0.047
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	40620	2593	18.56	19.50	1.242	62.9	1.006	0.06	0.549	0.686
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	39750	2506	18.51	19.50	1.256	62.9	1.006	-0.08	0.602	0.761
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	40185	2549.5	18.47	19.50	1.268	62.9	1.006	0.13	0.565	0.721
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	41055	2636.5	18.49	19.50	1.262	62.9	1.006	0.12	0.478	0.607
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	41490	2680	18.44	19.50	1.276	62.9	1.006	0.03	0.568	0.729
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	40620	2593	18.51	19.50	1.256	62.9	1.006	0.18	0.366	0.462
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 2	40620	2593	18.49	19.50	1.262	62.9	1.006	0.01	0.371	0.471
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	40620	2593	18.56	19.50	1.242	62.9	1.006	-0.15	0.654	0.817
15	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	39750	2506	18.51	19.50	1.256	62.9	1.006	0.01	0.702	**0.887**
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	40185	2549.5	18.47	19.50	1.268	62.9	1.006	0.07	0.628	0.801
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	41055	2636.5	18.49	19.50	1.262	62.9	1.006	-0.18	0.587	0.745

	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	41490	2680	18.44	19.50	1.276	62.9	1.006	0.03	0.677	0.869
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	40620	2593	18.51	19.50	1.256	62.9	1.006	-0.15	0.411	0.519
	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 2	40620	2593	18.49	19.50	1.262	62.9	1.006	-0.04	0.415	0.527
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	40620	2593	18.56	19.50	1.242	62.9	1.006	-0.08	0.321	0.401
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	40620	2593	18.51	19.50	1.256	62.9	1.006	-0.13	0.204	0.258
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	40620	2593	18.56	19.50	1.242	62.9	1.006	-0.03	0.441	0.551
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	40620	2593	18.51	19.50	1.256	62.9	1.006	-0.12	0.271	0.342
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	23.47	24.00	1.130	-	-	0.18	0.176	0.199
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	23.25	24.00	1.189	-	-	0.16	0.175	0.208
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	23.47	24.00	1.130	-	-	-0.1	0.059	0.067
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 1	DSI 2	507000	2535	23.25	24.00	1.189	-	-	0.07	0.055	0.065
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	23.47	24.00	1.130	-	-	0.18	0.092	0.104
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 1	DSI 2	507000	2535	23.25	24.00	1.189	-	-	-0.1	0.092	0.109
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	23.47	24.00	1.130	-	-	0.01	0.072	0.081
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 1	DSI 2	507000	2535	23.25	24.00	1.189	-	-	-0.15	0.072	0.086
	FR1 n7 Other Path	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	23.45	24.00	1.135	-	-	0.17	0.005	0.006
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	507000	2535	18.18	18.80	1.153	-	-	-0.08	0.662	0.764
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	507000	2535	18.15	18.80	1.161	-	-	0.17	0.651	0.756
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	507000	2535	18.18	18.80	1.153	-	-	-0.04	0.727	0.839
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	507000	2535	18.15	18.80	1.161	-	-	-0.08	0.705	0.819
16	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	507000	2535	18.01	18.80	1.199	-	-	0.01	0.731	**0.877**
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	507000	2535	18.18	18.80	1.153	-	-	-0.13	0.362	0.418
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	507000	2535	18.15	18.80	1.161	-	-	-0.13	0.376	0.437
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	507000	2535	18.18	18.80	1.153	-	-	-0.03	0.431	0.497
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	507000	2535	18.15	18.80	1.161	-	-	-0.03	0.461	0.535
	FR1 n7 Other Path	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	507000	2535	18.16	18.80	1.159	-	-	0.16	0.687	0.796
3500MHz																				
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	DSI 2	42590	3500	17.37	18.60	1.327	62.9	1.006	0.08	0.439	0.586
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	DSI 2	42590	3500	17.32	18.60	1.343	62.9	1.006	-0.08	0.367	0.496
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 2	42590	3500	17.37	18.60	1.327	62.9	1.006	0.1	0.582	0.777
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 2	42190	3460	17.31	18.60	1.346	62.9	1.006	0.12	0.559	0.757
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	DSI 2	42990	3540	17.28	18.60	1.355	62.9	1.006	0.08	0.544	0.742
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 2	42590	3500	17.32	18.60	1.343	62.9	1.006	-0.17	0.465	0.628
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 2	42190	3460	17.28	18.60	1.355	62.9	1.006	-0.03	0.428	0.584
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	DSI 2	42990	3540	17.29	18.60	1.352	62.9	1.006	0.14	0.398	0.541
	LTE Band 42 Part 27Q	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 5	DSI 2	42590	3500	17.24	18.60	1.368	62.9	1.006	0.11	0.462	0.636
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 2	42590	3500	17.37	18.60	1.327	62.9	1.006	-0.05	0.540	0.721
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 2	42190	3460	17.31	18.60	1.346	62.9	1.006	0.18	0.522	0.707
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	DSI 2	42990	3540	17.28	18.60	1.355	62.9	1.006	0.14	0.533	0.727
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	DSI 2	42590	3500	17.32	18.60	1.343	62.9	1.006	-0.17	0.439	0.593
	LTE Band 42 Part 27Q	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 5	DSI 2	42590	3500	17.24	18.60	1.368	62.9	1.006	0.01	0.443	0.610
17	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	42590	3500	17.37	18.60	1.327	62.9	1.006	0.01	0.668	**0.892**
	LTE Band 42C Part 27Q	20M	QPSK	1	99	-	Left Tilted	0mm	Ant 5	DSI 2	42590+ 42788	3500+ 3519.8	17.34	18.60	1.337	62.9	1.006	0.06	0.634	0.852
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	42190	3460	17.31	18.60	1.346	62.9	1.006	0.1	0.634	0.858
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	42990	3540	17.28	18.60	1.355	62.9	1.006	-0.17	0.642	0.875
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 2	42590	3500	17.32	18.60	1.343	62.9	1.006	0.04	0.537	0.725
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 2	42190	3460	17.28	18.60	1.355	62.9	1.006	-0.01	0.495	0.675
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	DSI 2	42990	3540	17.29	18.60	1.352	62.9	1.006	-0.08	0.484	0.658
	LTE Band 42 Part 27Q	20M	QPSK	100	0	-	Left Tilted	0mm	Ant 5	DSI 2	42590	3500	17.24	18.60	1.368	62.9	1.006	0.05	0.537	0.739

	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	633334	3500.01	15.67	16.50	1.211	-	-	-0.01	0.394	0.477
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	633334	3500.01	15.66	16.50	1.213	-	-	-0.08	0.501	0.608
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	633334	3500.01	15.67	16.50	1.211	-	-	0.06	0.505	0.611
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	633334	3500.01	15.66	16.50	1.213	-	-	-0.09	0.652	0.791
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	633334	3500.01	15.67	16.50	1.211	-	-	0.13	0.494	0.598
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	633334	3500.01	15.66	16.50	1.213	-	-	0.12	0.624	0.757
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	633334	3500.01	15.67	16.50	1.211	-	-	0.18	0.609	0.737
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	633334	3500.01	15.66	16.50	1.213	-	-	0.04	0.727	0.882
	FR1 n78 Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	633334	3500.01	15.63	16.50	1.222	-	-	0.16	0.586	0.716
	FR1 n78 Part 27Q Other Path	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	633334	3500.01	15.33	16.50	1.309	-	-	0.07	0.274	0.359
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	633334	3500.01	20.64	22.00	1.368	-	-	0.14	0.079	0.108
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	633334	3500.01	20.44	22.00	1.432	-	-	-0.17	0.103	0.148
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	633334	3500.01	20.64	22.00	1.368	-	-	0.17	0.052	0.071
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	633334	3500.01	20.44	22.00	1.432	-	-	-0.05	0.067	0.096
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	633334	3500.01	20.64	22.00	1.368	-	-	0.01	0.000	0.000
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	633334	3500.01	20.44	22.00	1.432	-	-	0.1	0.044	0.063
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	633334	3500.01	20.64	22.00	1.368	-	-	-0.17	0.000	0.000
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	633334	3500.01	20.44	22.00	1.432	-	-	0.04	0.042	0.060
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	633334	3500.01	16.27	17.30	1.268	-	-	0.08	0.169	0.214
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	633334	3500.01	16.24	17.30	1.276	-	-	0.01	0.199	0.254
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	633334	3500.01	16.27	17.30	1.268	-	-	0.03	0.140	0.177
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	633334	3500.01	16.24	17.30	1.276	-	-	-0.08	0.165	0.211
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	633334	3500.01	16.27	17.30	1.268	-	-	-0.08	0.554	0.702
18	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	633334	3500.01	16.24	17.30	1.276	-	-	0.04	0.697	**0.890**
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	633334	3500.01	16.23	17.30	1.279	-	-	0.1	0.538	0.688
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	633334	3500.01	16.27	17.30	1.268	-	-	-0.18	0.255	0.323
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	633334	3500.01	16.24	17.30	1.276	-	-	0.1	0.372	0.475
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 2	633334	3500.01	20.79	22.00	1.321	-	-	0.12	0.109	0.144
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 2	633334	3500.01	20.75	22.00	1.334	-	-	0.08	0.082	0.109
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 2	633334	3500.01	20.79	22.00	1.321	-	-	-0.17	0.076	0.100
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 2	633334	3500.01	20.75	22.00	1.334	-	-	-0.03	0.087	0.116
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 2	633334	3500.01	20.79	22.00	1.321	-	-	0.14	0.099	0.131
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 2	633334	3500.01	20.75	22.00	1.334	-	-	0.11	0.091	0.121
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 2	633334	3500.01	20.79	22.00	1.321	-	-	-0.05	0.142	0.188
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 2	633334	3500.01	20.75	22.00	1.334	-	-	0.18	0.132	0.176

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2450MHz																
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6+8(6)	Receiver on	11	2462	17.02	19.00	1.578	87.19	1.147	0.08	0.320	0.579
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6+8(6)	Receiver on	11	2462	17.02	19.00	1.578	87.19	1.147	-0.08	0.300	0.543
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	11	2462	17.02	19.00	1.578	87.19	1.147	-0.08	0.751	1.359
19	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	6	2437	17.17	19.00	1.524	87.19	1.147	-0.01	0.803	**1.404**
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	1	2412	17.12	19.00	1.542	87.19	1.147	0.1	0.787	1.392
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+8(6)	Receiver on	11	2462	17.02	19.00	1.578	87.19	1.147	-0.18	0.620	1.122
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+8(6)	Receiver on	6	2437	17.17	19.00	1.524	87.19	1.147	0.1	0.641	1.121
	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	6	2437	17.15	19.00	1.531	86.38	1.158	0.03	0.611	1.083

	WLAN2.4GHz	802.11g 6Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	1	2412	16.55	18.00	1.396	86.38	1.158	0.06	0.604	0.977
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6+8(6)	Simultaneous	6	2437	11.84	13.50	1.466	87.19	1.147	0.18	0.092	0.155
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6+8(6)	Simultaneous	6	2437	11.84	13.50	1.466	87.19	1.147	0.14	0.086	0.145
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Simultaneous	6	2437	11.84	13.50	1.466	87.19	1.147	-0.17	0.225	0.378
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+8(6)	Simultaneous	6	2437	11.84	13.50	1.466	87.19	1.147	0.17	0.179	0.301
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	0.08	0.087	0.120
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	-0.17	0.092	0.127
20	Bluetooth	1Mbps	Left Cheek	0mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	-0.04	0.184	**0.253**
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	-0.03	0.168	0.231
	Bluetooth	1Mbps	Right Cheek	0mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.14	0.043	0.065
	Bluetooth	1Mbps	Right Tilted	0mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.11	0.045	0.068
	Bluetooth	1Mbps	Left Cheek	0mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.04	0.099	0.149
	Bluetooth	1Mbps	Left Tilted	0mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	-0.05	0.083	0.125
5000MHz																
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Cheek	0mm	Ant 5+8(8)	Receiver on	54	5270	16.17	18.00	1.522	86.11	1.161	-0.05	0.322	0.569
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Tilted	0mm	Ant 5+8(8)	Receiver on	54	5270	16.17	18.00	1.522	86.11	1.161	0.01	0.443	0.783
21	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+8(8)	Receiver on	54	5270	16.17	18.00	1.522	86.11	1.161	-0.07	0.592	**1.046**
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+8(8)	Receiver on	62	5310	15.07	17.00	1.558	86.11	1.161	0.06	0.445	0.805
	WLAN5.3GHz	802.11n-HT40 MCS0	Left Tilted	0mm	Ant 5+8(8)	Receiver on	54	5270	16.17	18.00	1.522	86.11	1.161	-0.09	0.437	0.772
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+8(5)	Simultaneous	50	5250	12.18	14.00	1.521	85.06	1.176	0.12	0.116	0.207
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+8(5)	Simultaneous	50	5250	12.18	14.00	1.521	85.06	1.176	0.03	0.147	0.263
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+8(5)	Simultaneous	50	5250	12.18	14.00	1.521	85.06	1.176	0.18	0.220	0.393
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Simultaneous	50	5250	12.18	14.00	1.521	85.06	1.176	0.16	0.161	0.288
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+8(8)	Receiver on	138	5690	12.33	14.00	1.467	85.49	1.170	-0.1	0.506	0.869
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+8(5)	Receiver on	122	5610	12.87	14.50	1.455	85.49	1.170	0.04	0.433	0.737
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+8(8)	Receiver on	138	5690	12.33	14.00	1.467	85.49	1.170	-0.01	0.597	1.025
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+8(5)	Receiver on	122	5610	12.87	14.50	1.455	85.49	1.170	-0.11	0.501	0.853
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+8(8)	Receiver on	138	5690	12.33	14.00	1.467	85.49	1.170	0.18	0.479	0.822
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+8(5)	Receiver on	122	5610	12.87	14.50	1.455	85.49	1.170	0.07	0.429	0.730
22	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+8(8)	Receiver on	138	5690	12.33	14.00	1.467	85.49	1.170	-0.01	0.670	**1.150**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+8(5)	Receiver on	122	5610	12.87	14.50	1.455	85.49	1.170	0.09	0.611	1.040
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+8(8)	Simultaneous	114	5570	6.78	8.50	1.486	85.06	1.176	-0.1	0.153	0.267
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+8(8)	Simultaneous	114	5570	6.78	8.50	1.486	85.06	1.176	0.01	0.195	0.341
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+8(8)	Simultaneous	114	5570	6.78	8.50	1.486	85.06	1.176	-0.15	0.158	0.276
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+8(8)	Simultaneous	114	5570	6.78	8.50	1.486	85.06	1.176	0.19	0.218	0.381
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+8(8)	Receiver on	155	5775	14.89	16.50	1.449	85.49	1.170	0.07	0.542	0.919
23	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+8(8)	Receiver on	155	5775	14.89	16.50	1.449	85.49	1.170	-0.17	0.668	**1.132**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+8(8)	Receiver on	155	5775	14.89	16.50	1.449	85.49	1.170	-0.18	0.530	0.898
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+8(8)	Receiver on	155	5775	14.89	16.50	1.449	85.49	1.170	0.03	0.639	1.083
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+8(8)	Simultaneous	155	5775	9.85	11.50	1.462	85.49	1.170	-0.15	0.167	0.286
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+8(8)	Simultaneous	155	5775	9.85	11.50	1.462	85.49	1.170	-0.15	0.223	0.381
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+8(8)	Simultaneous	155	5775	9.85	11.50	1.462	85.49	1.170	0.11	0.171	0.293
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+8(8)	Simultaneous	155	5775	9.85	11.50	1.462	85.49	1.170	-0.08	0.214	0.366

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)	Measured APD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 5+8(8)	Full power	47	6185	13.14	15.00	1.535	85.71	1.167	-0.06	0.258	0.462	1.84
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 5+8(8)	Full power	47	6185	13.14	15.00	1.535	85.71	1.167	-0.04	0.305	0.546	2.25
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 5+8(8)	Full power	47	6185	13.14	15.00	1.535	85.71	1.167	-0.05	0.278	0.498	1.87
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(8)	Full power	47	6185	13.14	15.00	1.535	85.71	1.167	-0.06	0.477	0.854	2.98
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(8)	Full power	15	6025	12.71	14.50	1.510	85.71	1.167	0.07	0.331	0.583	2.15
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(8)	Full power	111	6505	12.93	14.50	1.435	85.71	1.167	0.04	0.421	0.705	2.57
87	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	-0.01	0.679	**1.000**	**4.35**
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Full power	207	6985	12.20	14.00	1.514	85.71	1.167	0.09	0.538	0.950	3.61
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 5+8(5)	Simultaneous	111	6505	9.96	11.50	1.426	85.71	1.167	-0.06	0.105	0.175	1.04
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 5+8(5)	Simultaneous	111	6505	9.96	11.50	1.426	85.71	1.167	-0.04	0.123	0.205	1.27
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 5+8(5)	Simultaneous	111	6505	9.96	11.50	1.426	85.71	1.167	-0.05	0.109	0.181	1.05
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Simultaneous	111	6505	9.96	11.50	1.426	85.71	1.167	0.03	0.181	0.301	1.74
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(8)	Simultaneous	47	6185	9.25	11.00	1.496	85.71	1.167	0.08	0.201	0.351	1.94
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(8)	Simultaneous	15	6025	9.23	11.00	1.503	85.71	1.167	0.01	0.135	0.237	1.3
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Simultaneous	143	6665	8.53	10.00	1.403	85.71	1.167	-0.08	0.219	0.359	2.11
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Simultaneous	207	6985	7.26	9.00	1.493	85.71	1.167	-0.08	0.192	0.334	1.85

17.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23095	707.5	23.02	24.00	1.253	-	-	0.08	0.370	0.464
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 7	23095	707.5	22.07	23.00	1.239	-	-	0.01	0.238	0.295
24	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23095	707.5	23.02	24.00	1.253	-	-	-0.13	0.736	**0.922**
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 7	23095	707.5	22.07	23.00	1.239	-	-	0.03	0.440	0.545
	LTE Band 12	10M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	23095	707.5	22.03	23.00	1.250	-	-	-0.08	0.441	0.551
	LTE Band 12	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	23095	707.5	23.02	24.00	1.253	-	-	-0.08	0.522	0.654
	LTE Band 12	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 7	23095	707.5	22.07	23.00	1.239	-	-	0.1	0.316	0.391
	LTE Band 12	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23095	707.5	23.02	24.00	1.253	-	-	-0.18	0.132	0.165
	LTE Band 12	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 7	23095	707.5	22.07	23.00	1.239	-	-	0.1	0.089	0.110
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	23095	707.5	23.02	24.00	1.253	-	-	0.12	0.459	0.575
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 7	23095	707.5	22.07	23.00	1.239	-	-	0.08	0.320	0.396
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	23230	782	22.94	24.00	1.276	-	-	-0.17	0.514	0.656
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	DSI 7	23230	782	22.03	23.00	1.250	-	-	-0.03	0.259	0.324
25	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23230	782	22.94	24.00	1.276	-	-	0.14	0.871	**1.112**
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	DSI 7	23230	782	22.03	23.00	1.250	-	-	0.14	0.517	0.646
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 0	DSI 7	23230	782	21.89	23.00	1.291	-	-	0.11	0.539	0.696
	LTE Band 13	10M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	23230	782	22.94	24.00	1.276	-	-	-0.05	0.720	0.919
	LTE Band 13	10M	QPSK	25	0	-	Left Side	5mm	Ant 0	DSI 7	23230	782	22.03	23.00	1.250	-	-	0.18	0.376	0.470
	LTE Band 13	10M	QPSK	50	0	-	Left Side	5mm	Ant 0	DSI 7	23230	782	21.89	23.00	1.291	-	-	0.14	0.390	0.504
	LTE Band 13	10M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	23230	782	22.94	24.00	1.276	-	-	-0.17	0.181	0.231
	LTE Band 13	10M	QPSK	25	0	-	Right Side	5mm	Ant 0	DSI 7	23230	782	22.03	23.00	1.250	-	-	0.17	0.094	0.118
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	23230	782	22.94	24.00	1.276	-	-	-0.05	0.634	0.809
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	5mm	Ant 0	DSI 7	23230	782	22.03	23.00	1.250	-	-	0.01	0.396	0.495
	LTE Band 13	10M	QPSK	50	0	-	Bottom Side	5mm	Ant 0	DSI 7	23230	782	21.89	23.00	1.291	-	-	0.1	0.375	0.484
835MHz																				
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	DSI 7	189	836.4	26.38	27.50	1.294	-	-	0.05	0.451	0.584
26	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 7	189	836.4	26.38	27.50	1.294	-	-	-0.08	0.824	**1.066**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 7	128	824.2	26.41	27.50	1.285	-	-	0.06	0.692	0.889
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 7	251	848.8	26.30	27.50	1.318	-	-	-0.09	0.715	0.943
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Side	5mm	Ant 0	DSI 7	189	836.4	26.38	27.50	1.294	-	-	-0.08	0.609	0.788
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Right Side	5mm	Ant 0	DSI 7	189	836.4	26.38	27.50	1.294	-	-	0.13	0.083	0.107
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Bottom Side	5mm	Ant 0	DSI 7	189	836.4	26.38	27.50	1.294	-	-	0.12	0.434	0.562
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	4182	836.4	23.03	24.00	1.250	-	-	0.17	0.548	0.685
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4182	836.4	23.03	24.00	1.250	-	-	0.06	1.010	1.263
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4132	826.4	22.95	24.00	1.274	-	-	0	0.796	1.014
27	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4233	846.6	22.96	24.00	1.271	-	-	0.09	1.020	**1.296**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 0	DSI 7	4182	836.4	23.03	24.00	1.250	-	-	-0.04	0.483	0.604
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 0	DSI 7	4182	836.4	23.03	24.00	1.250	-	-	-0.15	0.101	0.126
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 0	DSI 7	4182	836.4	23.03	24.00	1.250	-	-	0.11	0.545	0.681
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	DSI 7	26865	831.5	23.06	24.00	1.242	-	-	0.16	0.455	0.565
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 0	DSI 7	26865	831.5	21.95	23.00	1.274	-	-	-0.1	0.289	0.368
28	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	23.06	24.00	1.242	-	-	-0.06	0.971	**1.206**
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	21.95	23.00	1.274	-	-	0.07	0.573	0.730
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	21.81	23.00	1.315	-	-	0.18	0.572	0.752
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 0	DSI 7	26865	831.5	23.06	24.00	1.242	-	-	-0.1	0.533	0.662
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 0	DSI 7	26865	831.5	21.95	23.00	1.274	-	-	0.01	0.317	0.404
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 0	DSI 7	26865	831.5	23.06	24.00	1.242	-	-	-0.15	0.092	0.114

	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 0	DSI 7	26865	831.5	21.95	23.00	1.274	-	-	0.19	0.056	0.071
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	5mm	Ant 0	DSI 7	26865	831.5	23.06	24.00	1.242	-	-	0.07	0.407	0.505
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	5mm	Ant 0	DSI 7	26865	831.5	21.95	23.00	1.274	-	-	-0.18	0.260	0.331
	LTE Band 26 Other Path	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	23.01	24.00	1.256	-	-	0.03	0.614	0.771
	LTE Band 5 Other Path	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	20525	836.5	22.90	24.00	1.288	-	-	0.08	0.593	0.764
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	26865	831.5	20.13	21.50	1.371	-	-	-0.02	0.182	0.250
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 4	DSI 7	26865	831.5	20.12	21.50	1.374	-	-	0.15	0.102	0.140
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	26865	831.5	20.13	21.50	1.371	-	-	-0.06	0.451	0.618
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 4	DSI 7	26865	831.5	20.12	21.50	1.374	-	-	-0.08	0.245	0.337
	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	26865	831.5	20.13	21.50	1.371	-	-	0.15	0.141	0.193
	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 4	DSI 7	26865	831.5	20.12	21.50	1.374	-	-	-0.08	0.081	0.111
	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	26865	831.5	20.13	21.50	1.371	-	-	-0.05	0.054	0.074
	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 4	DSI 7	26865	831.5	20.12	21.50	1.374	-	-	-0.18	0.032	0.044
	LTE Band 26	15M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26865	831.5	20.13	21.50	1.371	-	-	-0.08	0.411	0.563
	LTE Band 26	15M	QPSK	36	0	-	Top Side	5mm	Ant 4	DSI 7	26865	831.5	20.12	21.50	1.374	-	-	0.18	0.294	0.404
	LTE Band 5 Other Path	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	20525	836.5	20.20	21.50	1.349	-	-	-0.15	0.409	0.552
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	166300	831.5	23.65	24.00	1.084	-	-	0.01	0.365	0.396
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	DSI 7	166300	831.5	23.52	24.00	1.117	-	-	-0.01	0.404	0.451
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	23.65	24.00	1.084	-	-	-0.06	0.745	0.808
29	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	23.52	24.00	1.117	-	-	-0.19	0.790	**0.882**
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	22.58	23.00	1.102	-	-	0.04	0.710	0.782
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	166300	831.5	23.65	24.00	1.084	-	-	-0.09	0.405	0.439
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 0	DSI 7	166300	831.5	23.52	24.00	1.117	-	-	-0.17	0.469	0.524
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	166300	831.5	23.65	24.00	1.084	-	-	-0.1	0.070	0.076
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 0	DSI 7	166300	831.5	23.52	24.00	1.117	-	-	0.18	0.077	0.086
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	166300	831.5	23.65	24.00	1.084	-	-	-0.17	0.350	0.379
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 0	DSI 7	166300	831.5	23.52	24.00	1.117	-	-	-0.04	0.408	0.456
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	166300	831.5	20.18	21.40	1.324	-	-	0.1	0.151	0.200
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	166300	831.5	20.17	21.40	1.327	-	-	-0.18	0.162	0.215
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	166300	831.5	20.18	21.40	1.324	-	-	0.1	0.387	0.513
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	166300	831.5	20.17	21.40	1.327	-	-	-0.05	0.471	0.625
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	166300	831.5	20.18	21.40	1.324	-	-	0.08	0.183	0.242
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	166300	831.5	20.17	21.40	1.327	-	-	-0.17	0.205	0.272
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	166300	831.5	20.18	21.40	1.324	-	-	-0.03	0.053	0.070
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	166300	831.5	20.17	21.40	1.327	-	-	0.14	0.057	0.076
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	166300	831.5	20.18	21.40	1.324	-	-	0.11	0.324	0.429
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	166300	831.5	20.17	21.40	1.327	-	-	-0.05	0.309	0.410
	1750MHz																			
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 7	1413	1732.6	20.87	21.70	1.211	-	-	-0.12	0.648	0.784
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 7	1312	1712.4	20.81	21.70	1.227	-	-	-0.16	0.635	0.779
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 7	1513	1752.6	20.82	21.70	1.225	-	-	-0.03	0.586	0.718
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 7	1413	1732.6	20.87	21.70	1.211	-	-	0.17	0.792	0.959
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 7	1312	1712.4	20.81	21.70	1.227	-	-	0.02	0.805	0.988
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 7	1513	1752.6	20.82	21.70	1.225	-	-	0	0.718	0.879
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 1	DSI 7	1413	1732.6	20.87	21.70	1.211	-	-	0.18	0.128	0.155
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	DSI 7	1413	1732.6	20.87	21.70	1.211	-	-	-0.11	0.177	0.214
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	1413	1732.6	20.87	21.70	1.211	-	-	-0.05	1.010	1.223
30	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	1312	1712.4	20.81	21.70	1.227	-	-	-0.15	1.050	**1.289**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	1513	1752.6	20.82	21.70	1.225	-	-	-0.04	0.904	1.107
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	132322	1745	20.31	21.30	1.256	-	-	-0.08	0.526	0.661
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	132322	1745	20.28	21.30	1.265	-	-	0.01	0.322	0.407
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	132322	1745	20.31	21.30	1.256	-	-	0.06	0.757	0.951
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	132072	1720	20.27	21.30	1.268	-	-	-0.02	0.773	0.980
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	132572	1770	20.28	21.30	1.265	-	-	0.07	0.707	0.894
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	132322	1745	20.28	21.30	1.265	-	-	-0.17	0.420	0.531

	LTE Band 66	20M	QPSK	100	0	-	Back	5mm	Ant 1	DSI 7	132322	1745	20.25	21.30	1.274	-	-	0	0.406	0.517
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	132322	1745	20.31	21.30	1.256	-	-	-0.13	0.121	0.152
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 7	132322	1745	20.28	21.30	1.265	-	-	-0.1	0.071	0.090
	LTE Band 66	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 7	132322	1745	20.31	21.30	1.256	-	-	-0.07	0.173	0.217
	LTE Band 66	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 7	132322	1745	20.28	21.30	1.265	-	-	0.11	0.091	0.115
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	132322	1745	20.31	21.30	1.256	-	-	-0.17	0.979	1.230
31	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	132072	1720	20.27	21.30	1.268	-	-	-0.02	1.020	**1.293**
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	132572	1770	20.28	21.30	1.265	-	-	0.01	0.934	1.181
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	132322	1745	20.28	21.30	1.265	-	-	-0.07	0.502	0.635
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	DSI 7	132322	1745	20.25	21.30	1.274	-	-	0.18	0.563	0.717
	LTE Band 66 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	132322	1745	20.38	21.30	1.236	-	-	0.11	0.496	0.613
	LTE Band 4 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	20175	1732.5	20.36	21.30	1.242	-	-	-0.08	0.527	0.654
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	20175	1732.5	20.35	21.30	1.245	-	-	0.03	0.508	0.632
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	132322	1745	15.09	16.30	1.321	-	-	-0.06	0.162	0.214
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	132322	1745	15.08	16.30	1.324	-	-	-0.15	0.094	0.124
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	132322	1745	15.09	16.30	1.321	-	-	-0.05	0.475	0.628
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	132322	1745	15.08	16.30	1.324	-	-	0.12	0.249	0.330
	LTE Band 66	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	132322	1745	15.09	16.30	1.321	-	-	0.13	0.084	0.111
	LTE Band 66	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	132322	1745	15.08	16.30	1.324	-	-	-0.03	0.055	0.073
	LTE Band 66	20M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	132322	1745	15.09	16.30	1.321	-	-	0.09	0.026	0.034
	LTE Band 66	20M	QPSK	50	0	-	Right Side	5mm	Ant 4	DSI 7	132322	1745	15.08	16.30	1.324	-	-	0.06	0.016	0.021
	LTE Band 66	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	15.09	16.30	1.321	-	-	-0.04	0.318	0.420
	LTE Band 66	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	132322	1745	15.08	16.30	1.324	-	-	0.01	0.190	0.252
	LTE Band 66 Other PA	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	132322	1745	15.08	16.30	1.324	-	-	0.06	0.461	0.611
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	20175	1732.5	15.05	16.30	1.334	-	-	0.06	0.428	0.571
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	349000	1745	21.28	22.10	1.208	-	-	0.14	0.694	0.838
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	349000	1745	21.26	22.10	1.213	-	-	-0.17	0.645	0.783
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	349000	1745	21.21	22.10	1.227	-	-	0.17	0.635	0.779
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	349000	1745	21.28	22.10	1.208	-	-	-0.05	0.819	0.989
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	349000	1745	21.26	22.10	1.213	-	-	0.01	0.859	1.042
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	349000	1745	21.21	22.10	1.227	-	-	0.1	0.786	0.965
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	349000	1745	21.28	22.10	1.208	-	-	-0.17	0.206	0.249
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	349000	1745	21.26	22.10	1.213	-	-	0.04	0.215	0.261
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 7	349000	1745	21.28	22.10	1.208	-	-	-0.01	0.223	0.269
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 7	349000	1745	21.26	22.10	1.213	-	-	-0.08	0.217	0.263
32	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	349000	1745	21.28	22.10	1.208	-	-	0.06	1.070	**1.292**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	349000	1745	21.26	22.10	1.213	-	-	0.05	0.984	1.194
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	349000	1745	21.21	22.10	1.227	-	-	0.06	1.010	1.240
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	349000	1745	21.06	22.10	1.271	-	-	-0.13	0.368	0.468
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	349000	1745	15.47	16.40	1.239	-	-	-0.09	0.165	0.204
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	349000	1745	15.46	16.40	1.242	-	-	-0.08	0.173	0.215
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	349000	1745	15.47	16.40	1.239	-	-	-0.08	0.502	0.622
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	349000	1745	15.46	16.40	1.242	-	-	0.12	0.481	0.597
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	349000	1745	15.47	16.40	1.239	-	-	0.18	0.115	0.142
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	349000	1745	15.46	16.40	1.242	-	-	0.16	0.105	0.130
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	349000	1745	15.47	16.40	1.239	-	-	-0.1	0.022	0.027
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	349000	1745	15.46	16.40	1.242	-	-	0.07	0.023	0.029
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	15.47	16.40	1.239	-	-	0.18	0.290	0.359
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	349000	1745	15.46	16.40	1.242	-	-	-0.1	0.339	0.421
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	349000	1745	15.45	16.40	1.245	-	-	0.06	0.490	0.610
1900MHz																				
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	5mm	Ant 1	DSI 7	661	1880	29.14	30.50	1.368	-	-	-0.08	0.589	0.806
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	5mm	Ant 1	DSI 7	512	1850.2	29.12	30.50	1.374	-	-	-0.04	0.669	0.919
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	5mm	Ant 1	DSI 7	810	1909.8	29.05	30.50	1.396	-	-	-0.08	0.697	0.973
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	DSI 7	661	1880	29.14	30.50	1.368	-	-	0.17	0.720	0.985

	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	DSI 7	512	1850.2	29.12	30.50	1.374	-	-	0.18	0.728	1.000
33	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	DSI 7	810	1909.8	29.05	30.50	1.396	-	-	-0.16	0.748	**1.044**
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Left Side	5mm	Ant 1	DSI 7	661	1880	29.14	30.50	1.368	-	-	0.08	0.206	0.282
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Right Side	5mm	Ant 1	DSI 7	661	1880	29.14	30.50	1.368	-	-	0.01	0.195	0.267
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Bottom Side	5mm	Ant 1	DSI 7	661	1880	29.14	30.50	1.368	-	-	0.03	0.626	0.856
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Bottom Side	5mm	Ant 1	DSI 7	512	1850.2	29.12	30.50	1.374	-	-	-0.08	0.569	0.782
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Bottom Side	5mm	Ant 1	DSI 7	810	1909.8	29.05	30.50	1.396	-	-	-0.08	0.711	0.993
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	DSI 7	9400	1880	20.76	21.60	1.213	-	-	0.08	0.541	0.656
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 7	9400	1880	20.76	21.60	1.213	-	-	-0.13	0.661	0.802
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 7	9262	1852.4	20.71	21.60	1.227	-	-	0.04	0.580	0.712
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	DSI 7	9538	1907.6	20.69	21.60	1.233	-	-	0.17	0.722	0.890
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	5mm	Ant 1	DSI 7	9400	1880	20.76	21.60	1.213	-	-	-0.1	0.181	0.220
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Side	5mm	Ant 1	DSI 7	9400	1880	20.76	21.60	1.213	-	-	0.17	0.135	0.164
	WCDMA II					RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	9400	1880	20.76	21.60	1.213	-	-	-0.15	0.723	0.877
	WCDMA II					RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	9262	1852.4	20.71	21.60	1.227	-	-	0.18	0.679	0.833
34	WCDMA II					RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	9538	1907.6	20.69	21.60	1.233	-	-	0.08	0.975	**1.202**
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	26340	1880	20.26	21.50	1.330	-	-	0.05	0.530	0.705
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	26340	1880	20.25	21.50	1.334	-	-	0.03	0.443	0.591
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	26340	1880	20.26	21.50	1.330	-	-	-0.02	0.721	0.959
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	26140	1860	20.21	21.50	1.346	-	-	0.1	0.668	0.899
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	26590	1905	20.16	21.50	1.361	-	-	-0.1	0.695	0.946
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	26340	1880	20.25	21.50	1.334	-	-	-0.05	0.573	0.764
	LTE Band 25	20M	QPSK	100	0	-	Back	5mm	Ant 1	DSI 7	26340	1880	20.23	21.50	1.340	-	-	-0.09	0.569	0.762
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	26340	1880	20.26	21.50	1.330	-	-	0.03	0.105	0.140
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 7	26340	1880	20.25	21.50	1.334	-	-	-0.11	0.075	0.100
	LTE Band 25	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 7	26340	1880	20.26	21.50	1.330	-	-	-0.16	0.171	0.228
	LTE Band 25	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 7	26340	1880	20.25	21.50	1.334	-	-	0.15	0.137	0.183
35	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	26340	1880	20.26	21.50	1.330	-	-	0.08	0.955	**1.271**
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	26140	1860	20.21	21.50	1.346	-	-	-0.15	0.929	1.250
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	26590	1905	20.16	21.50	1.361	-	-	0.06	0.838	1.141
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	26340	1880	20.25	21.50	1.334	-	-	0.15	0.738	0.984
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	26140	1860	20.21	21.50	1.346	-	-	-0.1	0.760	1.023
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	26590	1905	20.14	21.50	1.368	-	-	0.17	0.651	0.890
	LTE Band 25	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	DSI 7	26340	1880	20.23	21.50	1.340	-	-	0.13	0.747	1.001
	LTE Band 2 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	18900	1880	20.35	21.50	1.303	-	-	-0.11	0.403	0.525
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	18900	1880	20.36	21.50	1.300	-	-	-0.12	0.397	0.516
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	26340	1880	16.65	17.60	1.245	-	-	-0.1	0.195	0.243
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	26340	1880	16.61	17.60	1.256	-	-	-0.05	0.160	0.201
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	26340	1880	16.65	17.60	1.245	-	-	-0.02	0.499	0.621
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	26340	1880	16.61	17.60	1.256	-	-	-0.06	0.443	0.556
	LTE Band 25	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	26340	1880	16.65	17.60	1.245	-	-	-0.12	0.150	0.187
	LTE Band 25	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	26340	1880	16.61	17.60	1.256	-	-	0.09	0.116	0.146
	LTE Band 25	20M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	26340	1880	16.65	17.60	1.245	-	-	-0.08	0.049	0.061
	LTE Band 25	20M	QPSK	50	0	-	Right Side	5mm	Ant 4	DSI 7	26340	1880	16.61	17.60	1.256	-	-	0.08	0.042	0.053
	LTE Band 25	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26340	1880	16.65	17.60	1.245	-	-	-0.04	0.476	0.592
	LTE Band 25	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	26340	1880	16.61	17.60	1.256	-	-	-0.02	0.379	0.476
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	376000	1880	20.49	21.90	1.384	-	-	-0.15	0.484	0.670
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	376000	1880	20.47	21.90	1.390	-	-	-0.18	0.468	0.650
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	376000	1880	20.49	21.90	1.384	-	-	0.11	0.704	0.974
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	372000	1860	20.45	21.90	1.396	-	-	-0.08	0.569	0.795
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	380000	1900	20.46	21.90	1.393	-	-	-0.17	0.683	0.952
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	376000	1880	20.47	21.90	1.390	-	-	-0.08	0.636	0.884
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	372000	1860	20.45	21.90	1.396	-	-	-0.04	0.621	0.867
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	380000	1900	20.43	21.90	1.403	-	-	-0.08	0.678	0.951
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	376000	1880	20.45	21.90	1.396	-	-	0.17	0.652	0.910

	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	376000	1880	20.49	21.90	1.384	-	-	0.18	0.086	0.119
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	376000	1880	20.47	21.90	1.390	-	-	-0.04	0.083	0.115
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 7	376000	1880	20.49	21.90	1.384	-	-	-0.08	0.159	0.220
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 7	376000	1880	20.47	21.90	1.390	-	-	-0.13	0.173	0.240
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	376000	1880	20.49	21.90	1.384	-	-	-0.13	0.880	1.218
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	372000	1860	20.45	21.90	1.396	-	-	0.06	0.724	1.011
36	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	380000	1900	20.46	21.90	1.393	-	-	-0.06	0.921	**1.283**
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	376000	1880	20.47	21.90	1.390	-	-	-0.03	0.890	1.237
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	372000	1860	20.45	21.90	1.396	-	-	-0.03	0.880	1.229
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	380000	1900	20.43	21.90	1.403	-	-	0.08	0.905	1.270
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	376000	1880	20.45	21.90	1.396	-	-	-0.07	0.849	1.186
	FR1 n2 Other PA	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	380000	1900	20.35	21.90	1.429	-	-	-0.05	0.333	0.476
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	376000	1880	17.08	18.40	1.355	-	-	-0.18	0.134	0.182
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	376000	1880	17.04	18.40	1.368	-	-	-0.03	0.129	0.176
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	376000	1880	17.08	18.40	1.355	-	-	-0.13	0.454	0.615
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	376000	1880	17.04	18.40	1.368	-	-	-0.04	0.418	0.572
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	376000	1880	17.08	18.40	1.355	-	-	0.18	0.091	0.123
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	376000	1880	17.04	18.40	1.368	-	-	-0.17	0.092	0.126
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	376000	1880	17.08	18.40	1.355	-	-	-0.04	0.037	0.050
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	376000	1880	17.04	18.40	1.368	-	-	-0.05	0.032	0.044
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	376000	1880	17.08	18.40	1.355	-	-	0	0.360	0.488
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	376000	1880	17.04	18.40	1.368	-	-	-0.09	0.345	0.472
	FR1 n2 Other PA	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	376000	1880	17.27	18.40	1.297	-	-	0.05	0.441	0.572
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	21100	2535	21.06	21.80	1.186	-	-	0.12	0.870	1.032
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	20850	2510	20.97	21.80	1.211	-	-	-0.12	0.842	1.019
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	21350	2560	21.02	21.80	1.197	-	-	-0.15	0.870	1.041
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	21100	2535	21.04	21.80	1.191	-	-	-0.19	0.526	0.627
	LTE Band 7	20M	QPSK	100	0	-	Front	5mm	Ant 1	DSI 7	21100	2535	21.03	21.80	1.194	-	-	-0.12	0.495	0.591
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	21100	2535	21.06	21.80	1.186	-	-	0.18	1.020	1.209
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	20850	2510	20.97	21.80	1.211	-	-	0.14	1.030	1.247
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	21350	2560	21.02	21.80	1.197	-	-	0.03	1.020	1.221
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	21100	2535	21.04	21.80	1.191	-	-	0.09	0.628	0.748
	LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 1	DSI 7	21100	2535	21.03	21.80	1.194	-	-	-0.18	0.616	0.735
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	21100	2535	21.06	21.80	1.186	-	-	0.12	0.148	0.175
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 7	21100	2535	21.04	21.80	1.191	-	-	0.11	0.078	0.093
	LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 7	21100	2535	21.06	21.80	1.186	-	-	0.11	0.200	0.237
	LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 7	21100	2535	21.04	21.80	1.191	-	-	-0.06	0.104	0.124
37	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	21100	2535	21.06	21.80	1.186	-	-	0.03	1.070	**1.269**
	LTE Band 7C	20M	QPSK	1	99	-	Bottom Side	5mm	Ant 1	DSI 7	21100+ 21298	2535+ 2554.8	20.85	21.80	1.245	-	-	0.08	0.954	1.187
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	20850	2510	20.97	21.80	1.211	-	-	-0.02	0.963	1.166
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	21350	2560	21.02	21.80	1.197	-	-	0.02	0.999	1.196
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	21100	2535	21.04	21.80	1.191	-	-	0.12	0.842	1.003
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	20850	2510	21.01	21.80	1.199	-	-	0.02	0.799	0.958
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	21350	2560	21.03	21.80	1.194	-	-	-0.11	0.863	1.030
	LTE Band 7	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	DSI 7	21100	2535	21.03	21.80	1.194	-	-	-0.11	0.777	0.928
	LTE Band 7 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	21100	2535	21.03	21.80	1.194	-	-	-0.15	1.010	1.206
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	21100	2535	13.63	15.00	1.371	-	-	0.12	0.142	0.195
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	21100	2535	13.61	15.00	1.377	-	-	0.14	0.092	0.127
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	13.63	15.00	1.371	-	-	0.06	0.450	0.617
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	13.61	15.00	1.377	-	-	-0.04	0.305	0.420
	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	21100	2535	13.63	15.00	1.371	-	-	0	0.070	0.096
	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	21100	2535	13.61	15.00	1.377	-	-	-0.09	0.046	0.063
	LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	21100	2535	13.63	15.00	1.371	-	-	0.13	0.019	0.026
	LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 4	DSI 7	21100	2535	13.61	15.00	1.377	-	-	0	0.013	0.018

	LTE Band 7	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	21100	2535	13.63	15.00	1.371	-	-	-0.12	0.302	0.414
	LTE Band 7	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	21100	2535	13.61	15.00	1.377	-	-	-0.07	0.206	0.284
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	13.63	15.00	1.371	-	-	-0.18	0.418	0.573
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	23.17	24.00	1.211	62.9	1.006	-0.1	0.605	0.737
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	39750	2506	23.11	24.00	1.227	62.9	1.006	-0.15	0.585	0.722
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	40185	2549.5	23.12	24.00	1.225	62.9	1.006	0.19	0.617	0.760
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	41055	2636.5	23.07	24.00	1.239	62.9	1.006	0.07	0.526	0.656
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	41490	2680	23.16	24.00	1.213	62.9	1.006	-0.18	0.497	0.607
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	22.08	23.00	1.236	62.9	1.006	0.03	0.366	0.455
	LTE Band 41	20M	QPSK	100	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	21.97	23.00	1.268	62.9	1.006	-0.15	0.361	0.460
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	23.17	24.00	1.211	62.9	1.006	-0.19	0.800	0.974
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	39750	2506	23.11	24.00	1.227	62.9	1.006	0.11	0.707	0.873
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	40185	2549.5	23.12	24.00	1.225	62.9	1.006	-0.08	0.757	0.933
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41055	2636.5	23.07	24.00	1.239	62.9	1.006	-0.17	0.777	0.968
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	23.16	24.00	1.213	62.9	1.006	-0.08	0.746	0.911
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	22.08	23.00	1.236	62.9	1.006	-0.04	0.486	0.604
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	39750	2506	21.80	23.00	1.318	62.9	1.006	0.17	0.432	0.573
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	40185	2549.5	21.94	23.00	1.276	62.9	1.006	0.18	0.458	0.588
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	41055	2636.5	21.82	23.00	1.312	62.9	1.006	-0.04	0.497	0.656
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	21.92	23.00	1.282	62.9	1.006	-0.08	0.492	0.635
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	21.97	23.00	1.268	62.9	1.006	-0.13	0.504	0.643
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	40620	2593	23.17	24.00	1.211	62.9	1.006	-0.13	0.096	0.117
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 7	40620	2593	22.08	23.00	1.236	62.9	1.006	0.06	0.059	0.073
	LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 7	40620	2593	23.17	24.00	1.211	62.9	1.006	-0.03	0.142	0.173
	LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 7	40620	2593	22.08	23.00	1.236	62.9	1.006	-0.03	0.082	0.102
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	23.17	24.00	1.211	62.9	1.006	0.08	0.730	0.889
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	39750	2506	23.11	24.00	1.227	62.9	1.006	0.05	0.729	0.900
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	23.12	24.00	1.225	62.9	1.006	-0.11	0.803	0.989
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41055	2636.5	23.07	24.00	1.239	62.9	1.006	-0.12	0.854	1.064
38	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	23.16	24.00	1.213	62.9	1.006	0.01	1.070	**1.306**
	LTE Band 41C	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490+ 41292	2680+ 2660.2	23.11	24.00	1.227	62.9	1.006	0.03	0.965	1.192
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	22.08	23.00	1.236	62.9	1.006	-0.16	0.602	0.749
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	39750	2506	21.80	23.00	1.318	62.9	1.006	0.15	0.600	0.796
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	21.94	23.00	1.276	62.9	1.006	-0.09	0.577	0.741
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	41055	2636.5	21.82	23.00	1.312	62.9	1.006	0.11	0.737	0.973
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	21.92	23.00	1.282	62.9	1.006	-0.05	0.919	1.186
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	21.97	23.00	1.268	62.9	1.006	-0.08	0.589	0.751
	LTE Band 41 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	23.11	24.00	1.227	62.9	1.006	0.07	0.803	0.992
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	40620	2593	16.83	17.50	1.167	62.9	1.006	-0.05	0.158	0.185
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	40620	2593	16.81	17.50	1.172	62.9	1.006	0.03	0.099	0.117
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	40620	2593	16.83	17.50	1.167	62.9	1.006	0.06	0.534	0.627
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	39750	2506	16.75	17.50	1.189	62.9	1.006	0.01	0.511	0.611
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	40185	2549.5	16.78	17.50	1.180	62.9	1.006	-0.03	0.510	0.606
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	41055	2636.5	16.74	17.50	1.191	62.9	1.006	0.03	0.397	0.476
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	41490	2680	16.81	17.50	1.172	62.9	1.006	-0.17	0.491	0.579
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	40620	2593	16.81	17.50	1.172	62.9	1.006	0.02	0.342	0.403
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 4	DSI 7	40620	2593	16.79	17.50	1.178	62.9	1.006	-0.03	0.319	0.378
	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	40620	2593	16.83	17.50	1.167	62.9	1.006	0.12	0.079	0.093
	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	40620	2593	16.81	17.50	1.172	62.9	1.006	0.19	0.048	0.057
	LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	40620	2593	16.83	17.50	1.167	62.9	1.006	-0.09	0.032	0.038
	LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 4	DSI 7	40620	2593	16.81	17.50	1.172	62.9	1.006	-0.12	0.020	0.024
	LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	40620	2593	16.83	17.50	1.167	62.9	1.006	0.07	0.387	0.454
	LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	40620	2593	16.81	17.50	1.172	62.9	1.006	-0.18	0.229	0.270
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	507000	2535	21.49	22.50	1.262	-	-	-0.15	0.578	0.729
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	DSI 7	507000	2535	21.48	22.50	1.265	-	-	-0.06	0.533	0.674

	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	507000	2535	21.49	22.50	1.262	-	-	-0.19	0.791	0.998
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	507000	2535	21.48	22.50	1.265	-	-	0.01	0.759	0.960
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 7	507000	2535	21.47	22.50	1.268	-	-	0.06	0.746	0.946
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	507000	2535	21.49	22.50	1.262	-	-	0.02	0.067	0.085
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 1	DSI 7	507000	2535	21.48	22.50	1.265	-	-	0.12	0.054	0.068
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 7	507000	2535	21.49	22.50	1.262	-	-	-0.16	0.161	0.203
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 1	DSI 7	507000	2535	21.48	22.50	1.265	-	-	-0.12	0.148	0.187
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	21.49	22.50	1.262	-	-	0.07	0.895	1.129
39	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	21.48	22.50	1.265	-	-	-0.01	0.979	**1.238**
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	21.47	22.50	1.268	-	-	-0.02	0.908	1.151
	FR1 n7 Other Path	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	21.41	22.50	1.285	-	-	-0.06	0.241	0.310
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	507000	2535	14.30	15.40	1.288	-	-	-0.01	0.141	0.182
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	507000	2535	14.28	15.40	1.294	-	-	0	0.132	0.171
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	507000	2535	14.30	15.40	1.288	-	-	-0.06	0.404	0.520
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	507000	2535	14.28	15.40	1.294	-	-	-0.15	0.487	0.630
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	507000	2535	14.30	15.40	1.288	-	-	0.03	0.071	0.091
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	507000	2535	14.28	15.40	1.294	-	-	-0.13	0.068	0.088
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	507000	2535	14.30	15.40	1.288	-	-	-0.15	0.019	0.024
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	507000	2535	14.28	15.40	1.294	-	-	-0.02	0.021	0.027
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	507000	2535	14.30	15.40	1.288	-	-	-0.09	0.347	0.447
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	507000	2535	14.28	15.40	1.294	-	-	0.14	0.336	0.435
	FR1 n7 Other Path	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	507000	2535	14.19	15.40	1.321	-	-	-0.17	0.453	0.599
3500MHz																				
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Front	5mm	Ant 5	DSI 7	42590	3500	15.92	16.70	1.197	62.9	1.006	0.1	0.142	0.171
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Front	5mm	Ant 5	DSI 7	42590	3500	15.90	16.70	1.202	62.9	1.006	0.09	0.112	0.135
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	42590	3500	15.92	16.70	1.197	62.9	1.006	-0.18	0.507	0.610
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	42190	3460	15.86	16.70	1.213	62.9	1.006	-0.03	0.428	0.522
40	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	42990	3540	15.84	16.70	1.219	62.9	1.006	0.11	0.527	**0.646**
	LTE Band 42C Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	42990+ 42792	3540+ 3520.2	15.71	16.70	1.256	62.9	1.006	-0.12	0.505	0.638
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Back	5mm	Ant 5	DSI 7	42590	3500	15.90	16.70	1.202	62.9	1.006	-0.04	0.416	0.503
	LTE Band 42 Part 27Q	20M	QPSK	100	0	-	Back	5mm	Ant 5	DSI 7	42590	3500	15.89	16.70	1.205	62.9	1.006	0.11	0.350	0.424
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Side	5mm	Ant 5	DSI 7	42590	3500	15.92	16.70	1.197	62.9	1.006	0.07	0.026	0.031
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Left Side	5mm	Ant 5	DSI 7	42590	3500	15.90	16.70	1.202	62.9	1.006	-0.03	0.018	0.022
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Right Side	5mm	Ant 5	DSI 7	42590	3500	15.92	16.70	1.197	62.9	1.006	0.09	0.004	0.005
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Right Side	5mm	Ant 5	DSI 7	42590	3500	15.90	16.70	1.202	62.9	1.006	-0.08	0.030	0.036
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Top Side	5mm	Ant 5	DSI 7	42590	3500	15.92	16.70	1.197	62.9	1.006	-0.05	0.403	0.485
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Top Side	5mm	Ant 5	DSI 7	42590	3500	15.90	16.70	1.202	62.9	1.006	-0.14	0.304	0.368
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	633334	3500.01	13.69	14.30	1.151	-	-	0.03	0.130	0.150
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	633334	3500.01	13.67	14.30	1.156	-	-	-0.15	0.163	0.188
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	633334	3500.01	13.69	14.30	1.151	-	-	0.11	0.275	0.316
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	633334	3500.01	13.67	14.30	1.156	-	-	-0.08	0.389	0.450
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	633334	3500.01	13.69	14.30	1.151	-	-	-0.08	0.025	0.029
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	633334	3500.01	13.67	14.30	1.156	-	-	-0.04	0.024	0.028
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	633334	3500.01	13.69	14.30	1.151	-	-	-0.08	0.058	0.067
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	633334	3500.01	13.67	14.30	1.156	-	-	0.17	0.073	0.084
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	633334	3500.01	13.69	14.30	1.151	-	-	0.18	0.402	0.463
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	633334	3500.01	13.67	14.30	1.156	-	-	0.06	0.535	0.619
	FR1 n78 Part 27Q Other Path	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	633334	3500.01	13.38	14.30	1.236	-	-	0.02	0.466	0.576
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 3	DSI 7	633334	3500.01	11.67	12.80	1.297	-	-	0.08	0.006	0.008
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 3	DSI 7	633334	3500.01	11.65	12.80	1.303	-	-	-0.07	0.009	0.012
	FR1 n78 SRS	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 3	DSI 7	633334	3500.01	11.67	12.80	1.297	-	-	0.05	0.373	0.484

	Part 27Q																			
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 3	DSI 7	633334	3500.01	11.65	12.80	1.303	-	-	0.05	0.481	0.627
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 3	DSI 7	633334	3500.01	11.67	12.80	1.297	-	-	-0.12	0.068	0.088
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 3	DSI 7	633334	3500.01	11.65	12.80	1.303	-	-	0.03	0.105	0.137
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 3	DSI 7	633334	3500.01	11.67	12.80	1.297	-	-	-0.02	0.000	0.000
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 3	DSI 7	633334	3500.01	11.65	12.80	1.303	-	-	0.15	0.000	0.000
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 3	DSI 7	633334	3500.01	11.67	12.80	1.297	-	-	-0.09	0.009	0.012
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 3	DSI 7	633334	3500.01	11.65	12.80	1.303	-	-	0.11	0.104	0.136
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 7	633334	3500.01	13.26	14.00	1.186	-	-	0.05	0.139	0.165
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 7	633334	3500.01	13.23	14.00	1.194	-	-	0.05	0.164	0.196
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 7	633334	3500.01	13.26	14.00	1.186	-	-	-0.15	0.357	0.423
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 7	633334	3500.01	13.23	14.00	1.194	-	-	0.02	0.374	0.447
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 7	633334	3500.01	13.26	14.00	1.186	-	-	0.16	0.011	0.013
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 7	633334	3500.01	13.23	14.00	1.194	-	-	0.13	0.014	0.017
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 7	633334	3500.01	13.26	14.00	1.186	-	-	-0.18	0.411	0.487
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 7	633334	3500.01	13.23	14.00	1.194	-	-	-0.06	0.525	0.627
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 7	DSI 7	633334	3500.01	13.26	14.00	1.186	-	-	0.16	0.067	0.079
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 7	DSI 7	633334	3500.01	13.23	14.00	1.194	-	-	-0.03	0.075	0.090
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	-0.04	0.433	0.530
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 9	DSI 7	633334	3500.01	19.65	20.70	1.274	-	-	-0.09	0.497	0.633
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	-0.17	0.885	1.084
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 9	DSI 7	633334	3500.01	19.65	20.70	1.274	-	-	-0.1	0.893	1.137
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 9	DSI 7	633334	3500.01	19.72	20.70	1.253	-	-	0.18	0.640	0.802
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	-0.17	0.000	0.000
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 9	DSI 7	633334	3500.01	19.65	20.70	1.274	-	-	-0.04	0.000	0.000
41	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	-0.05	1.040	**1.274**
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	0.09	0.933	1.143
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	633334	3500.01	19.65	20.70	1.274	-	-	0	0.879	1.119
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	633334	3500.01	19.72	20.70	1.253	-	-	-0.13	0.850	1.065
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	-0.01	0.373	0.457
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 9	DSI 7	633334	3500.01	19.65	20.70	1.274	-	-	-0.09	0.381	0.485

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2450MHz																
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6+8(6)	Hotspot on	11	2462	15.01	16.50	1.409	87.19	1.147	0.08	0.171	0.276
42	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	Hotspot on	11	2462	15.01	16.50	1.409	87.19	1.147	-0.07	0.415	**0.671**
	WLAN2.4GHz	802.11b 1Mbps	Left Side	5mm	Ant 6+8(6)	Hotspot on	11	2462	15.01	16.50	1.409	87.19	1.147	0.03	0.018	0.029
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 6+8(6)	Hotspot on	11	2462	15.01	16.50	1.409	87.19	1.147	-0.08	0.301	0.487
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	Ant 6+8(6)	Hotspot on	11	2462	15.01	16.50	1.409	87.19	1.147	-0.08	0.161	0.260
	Bluetooth	1Mbps	Front	5mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	0.02	0.101	0.139
43	Bluetooth	1Mbps	Back	5mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	-0.03	0.208	**0.286**
	Bluetooth	1Mbps	Left Side	5mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	0.1	0.000	0.000
	Bluetooth	1Mbps	Right Side	5mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	0.12	0.039	0.054
	Bluetooth	1Mbps	Top Side	5mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	0.08	0.142	0.195
	Bluetooth	1Mbps	Front	5mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.06	0.087	0.131
	Bluetooth	1Mbps	Back	5mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.06	0.178	0.268
	Bluetooth	1Mbps	Left Side	5mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	-0.17	0.000	0.000
	Bluetooth	1Mbps	Right Side	5mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.08	0.172	0.259
	Bluetooth	1Mbps	Top Side	5mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	-0.03	0.135	0.203
5000MHz																
	WLAN5.2GHz	802.11n-HT40 MCS0	Front	5mm	Ant 5+8(5)	Hotspot on	46	5230	13.72	15.50	1.507	86.11	1.161	-0.09	0.171	0.299
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	5mm	Ant 5+8(5)	Hotspot on	46	5230	13.72	15.50	1.507	86.11	1.161	-0.08	0.305	0.533
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	5mm	Ant 5+8(5)	Hotspot on	46	5230	13.72	15.50	1.507	86.11	1.161	0.12	0.323	0.565
44	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	5mm	Ant 5+8(5)	Hotspot on	46	5230	13.72	15.50	1.507	86.11	1.161	-0.04	0.340	**0.595**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+8(8)	Hotspot on	155	5775	9.85	11.50	1.462	85.49	1.170	-0.1	0.084	0.144
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+8(8)	Hotspot on	155	5775	9.85	11.50	1.462	85.49	1.170	-0.15	0.217	0.371
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 5+8(8)	Hotspot on	155	5775	9.85	11.50	1.462	85.49	1.170	0.03	0.145	0.248
45	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 5+8(8)	Hotspot on	155	5775	9.85	11.50	1.462	85.49	1.170	-0.08	0.375	**0.642**

17.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
									750MHz												
	LTE Band 12	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23095	707.5	23.02	24.00	1.253	-	-	0.08	0.370	0.464
	LTE Band 12	10M	QPSK	25	0	-	Front	5mm	Ant 0	-	DSI 3	23095	707.5	22.07	23.00	1.239	-	-	0.01	0.238	0.295
46	LTE Band 12	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	23.02	24.00	1.253	-	-	-0.13	0.736	**0.922**
	LTE Band 12	10M	QPSK	25	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	22.07	23.00	1.239	-	-	0.03	0.440	0.545
	LTE Band 12	10M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	23095	707.5	22.03	23.00	1.250	-	-	-0.08	0.441	0.551
	LTE Band 13	10M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	22.94	24.00	1.276	-	-	-0.17	0.514	0.656
	LTE Band 13	10M	QPSK	25	0	-	Front	5mm	Ant 0	-	DSI 3	23230	782	22.03	23.00	1.250	-	-	-0.03	0.259	0.324
47	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	22.94	24.00	1.276	-	-	0.14	0.871	**1.112**
	LTE Band 13	10M	QPSK	25	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	22.03	23.00	1.250	-	-	0.14	0.517	0.646
	LTE Band 13	10M	QPSK	50	0	-	Back	5mm	Ant 0	-	DSI 3	23230	782	21.89	23.00	1.291	-	-	0.11	0.539	0.696
									835MHz												
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Front	5mm	Ant 0	-	DSI 3	189	836.4	26.38	27.50	1.294	-	-	0.05	0.451	0.584
48	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	-	DSI 3	189	836.4	26.38	27.50	1.294	-	-	-0.08	0.824	**1.066**
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	-	DSI 3	128	824.2	26.41	27.50	1.285	-	-	0.06	0.692	0.889
	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	-	DSI 3	251	848.8	26.30	27.50	1.318	-	-	-0.09	0.715	0.943
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	-	DSI 3	4182	836.4	23.03	24.00	1.250	-	-	0.17	0.548	0.685
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	4182	836.4	23.03	24.00	1.250	-	-	0.06	1.010	1.263
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	4132	826.4	22.95	24.00	1.274	-	-	0	0.796	1.014
49	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	-	DSI 3	4233	846.6	22.96	24.00	1.271	-	-	0.09	1.020	**1.296**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	Headset	DSI 3	4233	846.6	22.96	24.00	1.271	-	-	0.03	0.968	1.230
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	17mm	Ant 0	-	DSI 3	4182	836.4	23.03	24.00	1.250	-	-	0.05	0.242	0.303
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	18mm	Ant 0	-	DSI 3	4233	846.6	22.96	24.00	1.271	-	-	-0.16	0.296	0.376
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 0	-	DSI 3	26865	831.5	23.06	24.00	1.242	-	-	0.16	0.455	0.565
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 0	-	DSI 3	26865	831.5	21.95	23.00	1.274	-	-	-0.1	0.289	0.368
50	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	-	DSI 3	26865	831.5	23.06	24.00	1.242	-	-	-0.06	0.971	**1.206**
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	Headset	DSI 3	26865	831.5	23.06	24.00	1.242	-	-	0.09	0.957	1.188
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 0	-	DSI 3	26865	831.5	21.95	23.00	1.274	-	-	0.07	0.573	0.730
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 0	-	DSI 3	26865	831.5	21.81	23.00	1.315	-	-	0.18	0.572	0.752
	LTE Band 26 Other Path	15M	QPSK	1	0		Back	5mm	Ant 0		DSI 3	26865	831.5	23.01	24.00	1.256	-	-	0.04	0.614	0.771
	LTE Band 5 Other Path	10M	QPSK	1	0		Back	5mm	Ant 0		DSI 3	20525	836.5	22.90	24.00	1.288	-	-	0.03	0.597	0.769
	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	26865	831.5	21.76	22.70	1.242	-	-	-0.04	0.287	0.356
	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 4	-	DSI 3	26865	831.5	21.71	22.70	1.256	-	-	-0.05	0.162	0.203
	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	26865	831.5	21.76	22.70	1.242	-	-	0.07	0.712	0.884
	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 4	-	DSI 3	26865	831.5	21.71	22.70	1.256	-	-	0	0.387	0.486
	LTE Band 26	15M	QPSK	75	0	-	Back	5mm	Ant 4	-	DSI 3	26865	831.5	21.70	22.70	1.259	-	-	-0.13	0.340	0.428
	LTE Band 26	15M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	26865	831.5	22.97	24.00	1.268	-	-	0.08	0.099	0.125
	LTE Band 26	15M	QPSK	1	0	-	Back	18mm	Ant 4	-	DSI 4	26865	831.5	22.97	24.00	1.268	-	-	0.01	0.132	0.167
	LTE Band 5 Other Path	10M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	20525	836.5	21.87	22.70	1.211	-	-	0.04	0.688	0.833
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	166300	831.5	23.65	24.00	1.084	-	-	0.01	0.365	0.396
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 0	-	DSI 3	166300	831.5	23.52	24.00	1.117	-	-	-0.01	0.404	0.451
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	166300	831.5	23.65	24.00	1.084	-	-	-0.19	0.790	0.856
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	166300	831.5	23.52	24.00	1.117	-	-	-0.04	0.757	0.845
	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 0	-	DSI 3	166300	831.5	22.58	23.00	1.102	-	-	-0.06	0.708	0.780
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	166300	831.5	21.98	23.00	1.265	-	-	0.08	0.220	0.278
	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	166300	831.5	21.87	23.00	1.297	-	-	0.01	0.236	0.306
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	166300	831.5	21.98	23.00	1.265	-	-	0.03	0.562	0.711
51	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	166300	831.5	21.87	23.00	1.297	-	-	-0.16	0.685	**0.889**

	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	166300	831.5	21.95	23.00	1.274	-	-	-0.08	0.638	0.812
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	17mm	Ant 4	-	DSI 4	166300	831.5	23.39	24.00	1.151	-	-	0.03	0.087	0.100
	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 4	-	DSI 4	166300	831.5	23.39	24.00	1.151	-	-	-0.08	0.107	0.123
1750MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	1413	1732.6	21.90	22.60	1.175	-	-	-0.01	0.861	1.012
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	1312	1712.4	21.89	22.60	1.178	-	-	-0.09	0.845	0.995
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	1513	1752.6	21.81	22.60	1.199	-	-	0.05	0.779	0.934
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	1413	1732.6	21.90	22.60	1.175	-	-	0.02	1.050	1.234
52	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	1312	1712.4	21.89	22.60	1.178	-	-	0.03	1.070	**1.260**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	Headset	DSI 3	1312	1712.4	21.89	22.60	1.178	-	-	-0.06	1.010	1.189
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	1513	1752.6	21.81	22.60	1.199	-	-	-0.13	0.955	1.146
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	17mm	Ant 1	-	DSI 4	1413	1732.6	22.92	24.00	1.282	-	-	-0.08	0.258	0.331
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	18mm	Ant 1	-	DSI 4	1413	1732.6	22.92	24.00	1.282	-	-	0.1	0.301	0.386
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	132322	1745	21.36	22.40	1.271	-	-	0.17	0.661	0.840
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	132072	1720	21.21	22.40	1.315	-	-	0.06	0.671	0.883
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	132572	1770	21.28	22.40	1.294	-	-	0	0.599	0.775
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	132322	1745	21.35	22.40	1.274	-	-	-0.04	0.404	0.514
	LTE Band 66	20M	QPSK	100	0	-	Front	5mm	Ant 1	-	DSI 3	132322	1745	21.33	22.40	1.279	-	-	-0.02	0.394	0.504
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	132322	1745	21.36	22.40	1.271	-	-	0.1	0.950	1.207
53	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	132072	1720	21.21	22.40	1.315	-	-	0.06	0.971	**1.277**
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	Headset	DSI 3	132072	1720	21.21	22.40	1.315	-	-	0.08	0.949	1.248
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	132572	1770	21.28	22.40	1.294	-	-	0.04	0.888	1.149
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	132322	1745	21.35	22.40	1.274	-	-	0.13	0.527	0.671
	LTE Band 66	20M	QPSK	100	0	-	Back	5mm	Ant 1	-	DSI 3	132322	1745	21.33	22.40	1.279	-	-	-0.16	0.510	0.652
	LTE Band 66	20M	QPSK	1	0	-	Front	17mm	Ant 1	-	DSI 4	132322	1745	22.97	24.00	1.268	-	-	0.1	0.222	0.281
	LTE Band 66	20M	QPSK	1	0	-	Back	18mm	Ant 1	-	DSI 4	132322	1745	22.97	24.00	1.268	-	-	0.12	0.276	0.350
	LTE Band 66 Other Path	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	132322	1745	21.41	22.40	1.256	-	-	0.04	0.513	0.644
	LTE Band 4 Other Path	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	20175	1732.5	21.38	22.40	1.265	-	-	0.04	0.483	0.611
	LTE Band 4 Other PA	20M	QPSK	1	0		Back	5mm	Ant 1		DSI 3	20175	1732.5	21.35	22.40	1.274	-	-	-0.01	0.423	0.539
	LTE Band 66	20M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	132322	1745	16.52	17.40	1.225	-	-	-0.15	0.238	0.291
	LTE Band 66	20M	QPSK	50	0	-	Front	5mm	Ant 4	-	DSI 3	132322	1745	16.51	17.40	1.227	-	-	-0.19	0.139	0.171
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	132322	1745	16.52	17.40	1.225	-	-	0.12	0.654	0.801
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	132072	1720	16.48	17.40	1.236	-	-	-0.12	0.699	0.864
	LTE Band 66	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	132572	1770	16.47	17.40	1.239	-	-	-0.16	0.653	0.809
	LTE Band 66	20M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	132322	1745	16.51	17.40	1.227	-	-	-0.12	0.367	0.450
	LTE Band 66	20M	QPSK	100	0	-	Back	5mm	Ant 4	-	DSI 3	132322	1745	16.50	17.40	1.230	-	-	-0.05	0.363	0.447
	LTE Band 66	20M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	132322	1745	22.15	23.00	1.216	-	-	0.08	0.235	0.286
	LTE Band 66	20M	QPSK	1	0	-	Back	18mm	Ant 4	-	DSI 4	132322	1745	22.15	23.00	1.216	-	-	-0.17	0.346	0.421
	LTE Band 66 Other PA	20M	QPSK	1	0		Back	5mm	Ant 4		DSI 3	132322	1745	16.65	17.40	1.189	-	-	-0.09	0.546	0.649
	LTE Band 4 Other PA	20M	QPSK	1	0		Back	5mm	Ant 4		DSI 3	20175	1732.5	16.53	17.40	1.222	-	-	0.02	0.518	0.633
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	349000	1745	22.14	23.00	1.219	-	-	0.08	0.848	1.034
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	349000	1745	22.11	23.00	1.227	-	-	-0.17	0.788	0.967
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	349000	1745	22.09	23.00	1.233	-	-	-0.03	0.777	0.958
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	349000	1745	22.14	23.00	1.219	-	-	0.14	1.000	1.219
54	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	349000	1745	22.11	23.00	1.227	-	-	-0.11	1.050	**1.289**
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	Headset	DSI 3	349000	1745	22.11	23.00	1.227	-	-	0.03	0.985	1.209
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	349000	1745	22.09	23.00	1.233	-	-	0.11	0.961	1.185
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	17mm	Ant 1	-	DSI 4	349000	1745	23.25	24.00	1.189	-	-	-0.03	0.158	0.188
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 1	-	DSI 4	349000	1745	23.25	24.00	1.189	-	-	0.14	0.191	0.227
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	349000	1745	22.03	23.00	1.250	-	-	-0.04	0.292	0.365
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	349000	1745	16.95	17.80	1.216	-	-	-0.08	0.241	0.293
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	349000	1745	16.72	17.80	1.282	-	-	0.1	0.253	0.324
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	349000	1745	16.95	17.80	1.216	-	-	-0.02	0.733	0.891
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	349000	1745	16.72	17.80	1.282	-	-	0.1	0.687	0.881

	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	349000	1745	16.92	17.80	1.225	-	-	0.12	0.600	0.735
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	17mm	Ant 4	-	DSI 4	349000	1745	22.43	24.00	1.435	-	-	0.11	0.126	0.181
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 4	-	DSI 4	349000	1745	22.43	24.00	1.435	-	-	-0.05	0.213	0.306
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	349000	1745	17.04	17.80	1.191	-	-	0.11	0.700	0.834
1900MHz																					
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	5mm	Ant 1	-	DSI 3	661	1880	29.14	30.50	1.368	-	-	-0.08	0.599	0.819
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	5mm	Ant 1	-	DSI 3	512	1850.2	29.12	30.50	1.374	-	-	-0.04	0.669	0.919
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Front	5mm	Ant 1	-	DSI 3	810	1909.8	29.05	30.50	1.396	-	-	-0.08	0.697	0.973
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	-	DSI 3	661	1880	29.14	30.50	1.368	-	-	0.17	0.720	0.985
	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	-	DSI 3	512	1850.2	29.12	30.50	1.374	-	-	0.18	0.728	1.000
55	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	-	DSI 3	810	1909.8	29.05	30.50	1.396	-	-	-0.16	0.748	**1.044**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	9400	1880	22.30	23.30	1.259	-	-	-0.13	0.746	0.939
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	9262	1852.4	22.27	23.30	1.268	-	-	0.08	0.582	0.738
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 1	-	DSI 3	9538	1907.6	22.25	23.30	1.274	-	-	0.16	0.757	0.964
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	9400	1880	22.30	23.30	1.259	-	-	0.01	0.911	1.147
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	9262	1852.4	22.27	23.30	1.268	-	-	-0.16	0.799	1.013
56	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	-	DSI 3	9538	1907.6	22.25	23.30	1.274	-	-	0.13	0.994	**1.266**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 1	Headset	DSI 3	9538	1907.6	22.25	23.30	1.274	-	-	0.07	0.961	1.224
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	17mm	Ant 1	-	DSI 4	9400	1880	22.81	24.00	1.315	-	-	0.18	0.181	0.238
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	18mm	Ant 1	-	DSI 4	9400	1880	22.81	24.00	1.315	-	-	0.14	0.258	0.339
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	26340	1880	22.34	23.50	1.306	-	-	0.1	0.723	0.944
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	26140	1860	22.31	23.50	1.315	-	-	-0.04	0.682	0.897
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	26590	1905	22.21	23.50	1.346	-	-	-0.01	0.741	0.997
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	26340	1880	21.87	23.00	1.297	-	-	0	0.605	0.785
	LTE Band 25	20M	QPSK	100	0	-	Front	5mm	Ant 1	-	DSI 3	26340	1880	21.82	23.00	1.312	-	-	-0.15	0.584	0.766
57	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	26340	1880	22.34	23.50	1.306	-	-	0.11	0.984	**1.285**
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	Headset	DSI 3	26340	1880	22.34	23.50	1.306	-	-	0.08	0.928	1.212
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	26140	1860	22.31	23.50	1.315	-	-	0.03	0.913	1.201
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	26590	1905	22.21	23.50	1.346	-	-	-0.13	0.901	1.213
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	26340	1880	21.87	23.00	1.297	-	-	0.16	0.782	1.014
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	26140	1860	21.82	23.00	1.312	-	-	-0.15	0.747	0.980
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	26590	1905	21.78	23.00	1.324	-	-	-0.02	0.747	0.989
	LTE Band 25	20M	QPSK	100	0	-	Back	5mm	Ant 1	-	DSI 3	26340	1880	21.82	23.00	1.312	-	-	-0.09	0.777	1.020
	LTE Band 25	20M	QPSK	1	0	-	Front	17mm	Ant 1	-	DSI 4	26340	1880	22.98	24.00	1.265	-	-	-0.17	0.149	0.188
	LTE Band 25	20M	QPSK	1	0	-	Back	18mm	Ant 1	-	DSI 4	26340	1880	22.98	24.00	1.265	-	-	0.17	0.279	0.353
	LTE Band 2 Other Path	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	18900	1880	22.30	23.50	1.318	-	-	0.08	0.381	0.502
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	18900	1880	22.41	23.50	1.285	-	-	-0.05	0.353	0.454
	LTE Band 25	20M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	26340	1880	18.06	19.00	1.242	-	-	0.14	0.279	0.346
	LTE Band 25	20M	QPSK	50	0	-	Front	5mm	Ant 4	-	DSI 3	26340	1880	18.05	19.00	1.245	-	-	0.07	0.230	0.286
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	26340	1880	18.06	19.00	1.242	-	-	0.06	0.715	0.888
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	26140	1860	17.92	19.00	1.282	-	-	-0.07	0.620	0.795
	LTE Band 25	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	26590	1905	17.97	19.00	1.268	-	-	0.11	0.617	0.782
	LTE Band 25	20M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	26340	1880	18.05	19.00	1.245	-	-	-0.08	0.635	0.790
	LTE Band 25	20M	QPSK	100	0	-	Back	5mm	Ant 4	-	DSI 3	26340	1880	17.98	19.00	1.265	-	-	-0.09	0.573	0.725
	LTE Band 25	20M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	26340	1880	22.21	23.00	1.199	-	-	-0.05	0.249	0.299
	LTE Band 25	20M	QPSK	1	0	-	Back	18mm	Ant 4	-	DSI 4	26340	1880	22.21	23.00	1.199	-	-	0.01	0.344	0.413
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	376000	1880	22.46	23.50	1.271	-	-	-0.05	0.701	0.891
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	372000	1860	22.41	23.50	1.285	-	-	0.18	0.680	0.874
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	380000	1900	22.35	23.50	1.303	-	-	0.14	0.810	1.056
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	376000	1880	22.39	23.50	1.291	-	-	-0.17	0.679	0.877
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	372000	1860	22.23	23.50	1.340	-	-	0.17	0.692	0.927
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	380000	1900	22.13	23.50	1.371	-	-	-0.05	0.746	1.023
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	376000	1880	22.41	23.00	1.146	-	-	0.01	0.730	0.836
58	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	376000	1880	22.46	23.50	1.271	-	-	0.03	1.020	**1.296**
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	Headset	DSI 3	376000	1880	22.46	23.50	1.271	-	-	-0.05	0.937	1.191
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	372000	1860	22.41	23.50	1.285	-	-	0.1	0.825	1.060

	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	380000	1900	22.35	23.50	1.303	-	-	-0.17	0.990	1.290
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	376000	1880	22.39	23.50	1.291	-	-	0.04	0.922	1.191
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	372000	1860	22.23	23.50	1.340	-	-	-0.01	0.900	1.206
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	380000	1900	22.13	23.50	1.371	-	-	-0.08	0.902	1.237
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	376000	1880	22.41	23.00	1.146	-	-	0.05	0.945	1.083
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	17mm	Ant 1	-	DSI 4	376000	1880	23.48	24.00	1.127	-	-	0.1	0.182	0.205
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 1	-	DSI 4	376000	1880	23.48	24.00	1.127	-	-	-0.17	0.204	0.230
	FR1 n2 Other PA	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	376000	1880	22.31	23.50	1.315	-	-	0.04	0.309	0.406
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	376000	1880	18.44	19.40	1.247	-	-	0.06	0.210	0.262
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	376000	1880	18.39	19.40	1.262	-	-	0.13	0.203	0.256
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	376000	1880	18.44	19.40	1.247	-	-	0.02	0.712	0.888
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	372000	1860	18.33	19.40	1.279	-	-	0.16	0.500	0.640
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	380000	1900	18.35	19.40	1.274	-	-	-0.1	0.386	0.492
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	376000	1880	18.39	19.40	1.262	-	-	0.07	0.655	0.826
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	372000	1860	17.79	19.40	1.449	-	-	0.18	0.514	0.745
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	380000	1900	18.09	19.40	1.352	-	-	-0.1	0.477	0.645
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	376000	1880	18.38	19.40	1.265	-	-	0.01	0.591	0.747
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Front	17mm	Ant 4	-	DSI 4	376000	1880	22.83	24.00	1.309	-	-	0.04	0.149	0.195
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 4	-	DSI 4	376000	1880	22.83	24.00	1.309	-	-	-0.01	0.235	0.308
	FR1 n2 Other PA	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	376000	1880	18.21	19.40	1.315	-	-	0.04	0.648	0.852
2600MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	21100	2535	22.74	23.50	1.191	-	-	-0.06	0.838	0.998
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	20850	2510	22.69	23.50	1.205	-	-	-0.17	0.810	0.976
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	21350	2560	22.61	23.50	1.227	-	-	-0.01	0.838	1.029
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	21100	2535	21.69	23.00	1.352	-	-	-0.11	0.507	0.686
	LTE Band 7	20M	QPSK	100	0	-	Front	5mm	Ant 1	-	DSI 3	21100	2535	21.63	23.00	1.371	-	-	0.1	0.477	0.654
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	21100	2535	22.74	23.50	1.191	-	-	0.16	0.982	1.170
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	20850	2510	22.69	23.50	1.205	-	-	-0.06	0.996	1.200
59	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	21350	2560	22.61	23.50	1.227	-	-	-0.05	1.030	**1.264**
	LTE Band 7C	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	21350+ 21152	2560+ 2540.2	22.59	23.50	1.233	-	-	0.06	0.955	1.178
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 1	Headset	DSI 3	21350	2560	22.61	23.50	1.227	-	-	-0.12	0.986	1.210
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	21100	2535	21.69	23.00	1.352	-	-	0.02	0.604	0.817
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	20850	2510	21.66	23.00	1.361	-	-	-0.16	0.595	0.810
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	21350	2560	21.64	23.00	1.368	-	-	0.05	0.643	0.879
	LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 1	-	DSI 3	21100	2535	21.63	23.00	1.371	-	-	-0.03	0.593	0.813
	LTE Band 7	20M	QPSK	1	0	-	Front	17mm	Ant 1	-	DSI 4	21100	2535	23.03	24.00	1.250	-	-	-0.08	0.169	0.211
	LTE Band 7	20M	QPSK	1	0	-	Back	18mm	Ant 1	-	DSI 4	21100	2535	23.03	24.00	1.250	-	-	0.05	0.212	0.265
	LTE Band 7 Other Path	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	21100	2535	22.36	23.50	1.300	-	-	0.04	0.931	1.210
	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	21100	2535	15.06	16.00	1.242	-	-	0.17	0.213	0.264
	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 4	-	DSI 3	21100	2535	15.03	16.00	1.250	-	-	0.05	0.138	0.173
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	21100	2535	15.06	16.00	1.242	-	-	-0.11	0.668	0.829
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	20850	2510	14.93	16.00	1.279	-	-	0.06	0.677	**0.866**
	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	21350	2560	14.92	16.00	1.282	-	-	0.19	0.574	0.736
	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	21100	2535	15.03	16.00	1.250	-	-	-0.14	0.459	0.574
	LTE Band 7	20M	QPSK	100	0	-	Back	5mm	Ant 4	-	DSI 3	21100	2535	15.00	16.00	1.259	-	-	0.02	0.425	0.535
	LTE Band 7	20M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	21100	2535	22.74	24.00	1.337	-	-	0.06	0.214	0.286
	LTE Band 7	20M	QPSK	1	0	-	Back	18mm	Ant 4	-	DSI 4	21100	2535	22.74	24.00	1.337	-	-	-0.09	0.489	0.654
	LTE Band 7Other PA	20M	QPSK	1	0	-	Back	5mm	Ant 4		DSI 3	20850	2510	14.85	16.00	1.303	-	-	0.04	0.588	0.766
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	40620	2593	23.17	24.00	1.211	62.9	1.006	0.16	0.747	0.910
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	39750	2506	23.11	24.00	1.227	62.9	1.006	-0.04	0.722	0.892
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	40185	2549.5	23.12	24.00	1.225	62.9	1.006	0.13	0.761	0.938
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	41055	2636.5	23.07	24.00	1.239	62.9	1.006	0.12	0.650	0.810
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	-	DSI 3	41490	2680	23.16	24.00	1.213	62.9	1.006	0.07	0.614	0.749
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	-	DSI 3	40620	2593	22.08	23.00	1.236	62.9	1.006	0.08	0.452	0.562
	LTE Band 41	20M	QPSK	100	0	-	Front	5mm	Ant 1	-	DSI 3	40620	2593	21.97	23.00	1.268	62.9	1.006	0.19	0.446	0.569
60	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	40620	2593	23.17	24.00	1.211	62.9	1.006	-0.19	0.988	**1.203**

	LTE Band 41C	20M	QPSK	1	99	-	Back	5mm	Ant 1	-	DSI 3	40620+ 40818	2593+ 2612.8	23.13	24.00	1.222	62.9	1.006	0.08	0.934	1.148
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	Headset	DSI 3	40620	2593	23.17	24.00	1.211	62.9	1.006	0.09	0.971	1.183
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	39750	2506	23.11	24.00	1.227	62.9	1.006	0	0.873	1.078
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	40185	2549.5	23.12	24.00	1.225	62.9	1.006	-0.03	0.934	1.151
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	41055	2636.5	23.07	24.00	1.239	62.9	1.006	0.07	0.959	1.195
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	41490	2680	23.16	24.00	1.213	62.9	1.006	-0.12	0.921	1.124
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	40620	2593	22.08	23.00	1.236	62.9	1.006	-0.03	0.600	0.746
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	39750	2506	21.80	23.00	1.318	62.9	1.006	0.12	0.533	0.707
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	40185	2549.5	21.94	23.00	1.276	62.9	1.006	0.02	0.565	0.726
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	41055	2636.5	21.82	23.00	1.312	62.9	1.006	-0.03	0.614	0.811
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	-	DSI 3	41490	2680	21.92	23.00	1.282	62.9	1.006	0	0.608	0.784
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 1	-	DSI 3	40620	2593	21.97	23.00	1.268	62.9	1.006	-0.1	0.622	0.793
	LTE Band 41Other Path	20M	QPSK	1	0	-	Back	5mm	Ant 1	-	DSI 3	40620	2593	23.11	24.00	1.227	62.9	1.006	0.04	0.306	0.378
	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 4	-	DSI 3	40620	2593	18.32	19.10	1.197	62.9	1.006	0.05	0.218	0.262
	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 4	-	DSI 3	40620	2593	18.28	19.10	1.208	62.9	1.006	-0.08	0.137	0.166
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	40620	2593	18.32	19.10	1.197	62.9	1.006	-0.17	0.736	**0.886**
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	39750	2506	18.23	19.10	1.222	62.9	1.006	-0.12	0.704	0.865
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	40185	2549.5	18.25	19.10	1.216	62.9	1.006	0.07	0.723	0.885
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	41055	2636.5	18.27	19.10	1.211	62.9	1.006	0.09	0.547	0.666
	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	-	DSI 3	41490	2680	18.31	19.10	1.199	62.9	1.006	0.04	0.677	0.817
	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 4	-	DSI 3	40620	2593	18.28	19.10	1.208	62.9	1.006	0.11	0.472	0.574
	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 4	-	DSI 3	40620	2593	18.22	19.10	1.225	62.9	1.006	-0.17	0.439	0.541
	LTE Band 41	20M	QPSK	1	0	-	Front	17mm	Ant 4	-	DSI 4	40620	2593	22.58	24.00	1.387	62.9	1.006	-0.08	0.153	0.213
	LTE Band 41	20M	QPSK	1	0	-	Back	18mm	Ant 4	-	DSI 4	40620	2593	22.58	24.00	1.387	62.9	1.006	0.13	0.289	0.403
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	507000	2535	22.47	23.50	1.268	-	-	-0.15	0.731	0.927
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	507000	2535	22.44	23.50	1.276	-	-	0.19	0.674	0.860
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Front	5mm	Ant 1	-	DSI 3	507000	2535	22.41	23.00	1.146	-	-	0.07	0.714	0.818
61	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	507000	2535	22.47	23.50	1.268	-	-	-0.13	1.000	**1.268**
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	Headset	DSI 3	507000	2535	22.47	23.50	1.268	-	-	0.18	0.921	1.168
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	507000	2535	22.44	23.50	1.276	-	-	-0.18	0.939	1.199
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	507000	2535	22.41	23.00	1.146	-	-	0.03	0.943	1.080
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	17mm	Ant 1	-	DSI 4	507000	2535	23.47	24.00	1.130	-	-	0.12	0.135	0.153
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 1	-	DSI 4	507000	2535	23.47	24.00	1.130	-	-	0.03	0.187	0.211
	FR1 n7 Other Path	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	-	DSI 3	507000	2535	22.35	23.50	1.303	-	-	0.18	0.232	0.302
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	507000	2535	15.78	16.80	1.265	-	-	-0.15	0.198	0.250
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	-	DSI 3	507000	2535	15.40	16.80	1.380	-	-	-0.15	0.186	0.257
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	507000	2535	15.78	16.80	1.265	-	-	-0.08	0.569	0.720
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	507000	2535	15.40	16.80	1.380	-	-	-0.17	0.627	0.866
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	507000	2535	15.70	16.80	1.288	-	-	-0.14	0.685	0.882
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	17mm	Ant 4	-	DSI 4	507000	2535	23.25	24.00	1.189	-	-	0.16	0.144	0.171
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	18mm	Ant 4	-	DSI 4	507000	2535	23.25	24.00	1.189	-	-	-0.1	0.348	0.414
	FR1 n7 Other Path	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	-	DSI 3	507000	2535	15.75	16.80	1.274	-	-	-0.05	0.662	0.843
3500MHz																					
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Front	5mm	Ant 5	-	DSI 3	42590	3500	17.37	18.10	1.183	62.9	1.006	0.11	0.180	0.214
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Front	5mm	Ant 5	-	DSI 3	42590	3500	17.32	18.10	1.197	62.9	1.006	-0.14	0.143	0.172
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	-	DSI 3	42590	3500	17.37	18.10	1.183	62.9	1.006	0.08	0.644	0.766
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	-	DSI 3	42190	3460	17.31	18.10	1.199	62.9	1.006	0.01	0.544	0.656
62	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	-	DSI 3	42990	3540	17.28	18.10	1.208	62.9	1.006	-0.04	0.720	**0.875**
	LTE Band 42C Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	-	DSI 3	42990+ 42792	3540+ 3520.2	17.27	18.10	1.211	62.9	1.006	0.15	0.701	0.854
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Back	5mm	Ant 5	-	DSI 3	42590	3500	17.32	18.10	1.197	62.9	1.006	0.02	0.529	0.637
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Back	5mm	Ant 5	-	DSI 3	42190	3460	17.28	18.10	1.208	62.9	1.006	-0.11	0.467	0.567
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Back	5mm	Ant 5	-	DSI 3	42990	3540	17.29	18.10	1.205	62.9	1.006	-0.01	0.518	0.628
	LTE Band 42 Part 27Q	20M	QPSK	100	0	-	Back	5mm	Ant 5	-	DSI 3	42590	3500	17.24	18.10	1.219	62.9	1.006	0.09	0.444	0.544

	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Front	17mm	Ant 5	-	DSI 4	42590	3500	23.15	24.00	1.216	62.9	1.006	0.07	0.186	0.228
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	18mm	Ant 5	-	DSI 4	42590	3500	23.15	24.00	1.216	62.9	1.006	0.18	0.409	0.500
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	633334	3500.01	15.67	16.50	1.211	-	-	-0.1	0.237	0.287
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	633334	3500.01	15.66	16.50	1.213	-	-	0.07	0.296	0.359
	FR1 n78 Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 5	-	DSI 3	633334	3500.01	15.63	16.50	1.222	-	-	0.18	0.252	0.308
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	633334	3500.01	15.67	16.50	1.211	-	-	-0.1	0.500	0.605
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	633334	3500.01	15.66	16.50	1.213	-	-	0.06	0.707	0.858
	FR1 n78 Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	633334	3500.01	15.63	16.50	1.222	-	-	0.01	0.494	0.604
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	17mm	Ant 5	-	DSI 4	633334	3500.01	23.68	24.00	1.076	-	-	-0.1	0.175	0.188
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 5	-	DSI 4	633334	3500.01	23.68	24.00	1.076	-	-	0.01	0.390	0.420
	FR1 n78 Part 27Q Other Path	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	-	DSI 3	633334	3500.01	15.48	16.50	1.265	-	-	0.09	0.430	0.544
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 3	-	DSI 3	633334	3500.01	12.67	14.00	1.358	-	-	-0.15	0.009	0.012
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 3	-	DSI 3	633334	3500.01	12.65	14.00	1.365	-	-	0.19	0.012	0.016
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 3	-	DSI 3	633334	3500.01	12.67	14.00	1.358	-	-	0.07	0.506	0.687
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 3	-	DSI 3	633334	3500.01	12.65	14.00	1.365	-	-	0.05	0.653	0.891
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 3	-	DSI 3	633334	3500.01	12.63	14.00	1.371	-	-	-0.18	0.530	0.727
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	17mm	Ant 3	-	DSI 4	633334	3500.01	20.64	22.00	1.368	-	-	-0.15	0.038	0.052
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 3	-	DSI 4	633334	3500.01	20.64	22.00	1.368	-	-	0.19	0.170	0.233
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	633334	3500.01	19.31	20.30	1.256	-	-	0.05	0.263	0.330
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	633334	3500.01	19.29	20.30	1.262	-	-	0.02	0.309	0.390
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 7	-	DSI 3	633334	3500.01	19.27	20.30	1.268	-	-	-0.13	0.231	0.293
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	-	DSI 3	633334	3500.01	19.31	20.30	1.256	-	-	0.17	0.675	0.848
63	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	-	DSI 3	633334	3500.01	19.29	20.30	1.262	-	-	0.06	0.707	**0.892**
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 7	-	DSI 3	633334	3500.01	19.27	20.30	1.268	-	-	0.02	0.643	0.815
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	17mm	Ant 7	-	DSI 4	633334	3500.01	22.28	23.00	1.180	-	-	0.07	0.069	0.081
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	18mm	Ant 7	-	DSI 4	633334	3500.01	22.28	23.00	1.180	-	-	-0.18	0.124	0.146
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 9	-	DSI 3	633334	3500.01	20.79	22.00	1.321	-	-	-0.04	0.305	0.403
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 9	-	DSI 3	633334	3500.01	20.75	22.00	1.334	-	-	-0.09	0.349	0.465
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 9	-	DSI 3	633334	3500.01	20.79	22.00	1.321	-	-	-0.17	0.622	0.822
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 9	-	DSI 3	633334	3500.01	20.75	22.00	1.334	-	-	-0.1	0.653	**0.871**
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 9	-	DSI 3	633334	3500.01	19.72	21.00	1.343	-	-	0.18	0.450	0.604
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Front	17mm	Ant 9	-	DSI 3	633334	3500.01	20.79	22.00	1.321	-	-	0	0.087	0.115
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	18mm	Ant 9	-	DSI 3	633334	3500.01	20.75	22.00	1.334	-	-	-0.14	0.108	0.144

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Headset	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
2450MHz																	
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6+8(6)	-	Standalone	11	2462	18.11	20.00	1.545	87.19	1.147	-0.17	0.334	0.592
64	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	-	Standalone	11	2462	18.11	20.00	1.545	87.19	1.147	-0.01	0.776	**1.375**
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	Headset	Standalone	11	2462	18.11	20.00	1.545	87.19	1.147	0.02	0.754	1.336
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	-	Standalone	6	2437	18.22	20.00	1.507	87.19	1.147	0.17	0.749	1.294
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	-	Standalone	1	2412	18.05	20.00	1.567	87.19	1.147	-0.08	0.630	1.132
	WLAN2.4GHz	802.11g 6Mbps	Back	5mm	Ant 6+8(6)	-	Standalone	6	2437	18.22	20.00	1.507	86.38	1.158	0.05	0.671	1.171
	WLAN2.4GHz	802.11g 6Mbps	Back	5mm	Ant 6+8(6)	-	Standalone	1	2412	16.55	18.00	1.396	86.38	1.158	-0.14	0.536	0.867
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6+8(6)	-	Simultaneous	11	2462	13.04	14.50	1.400	87.19	1.147	0.18	0.112	0.180
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	-	Simultaneous	11	2462	13.04	14.50	1.400	87.19	1.147	-0.04	0.237	0.380
	WLAN2.4GHz	802.11b 1Mbps	Front	17mm	Ant 6+8(6)	-	Full power	11	2462	19.08	21.00	1.556	87.19	1.147	0.09	0.106	0.189
	WLAN2.4GHz	802.11b 1Mbps	Back	18mm	Ant 6+8(6)	-	Full power	11	2462	19.08	21.00	1.556	87.19	1.147	-0.01	0.151	0.269
	Bluetooth	1Mbps	Front	5mm	Ant 6	-	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	0.02	0.101	0.139
65	Bluetooth	1Mbps	Back	5mm	Ant 6	-	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	-0.03	0.188	**0.259**
	Bluetooth	1Mbps	Front	5mm	Ant 8	-	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.06	0.087	0.131
	Bluetooth	1Mbps	Back	5mm	Ant 8	-	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.06	0.168	0.253
5000MHz																	
	WLAN5.3GHz	802.11a 6Mbps	Front	5mm	Ant 5+8(5)	-	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.11	0.323	0.590
66	WLAN5.3GHz	802.11a 6Mbps	Back	5mm	Ant 5+8(5)	-	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.04	0.628	**1.148**
	WLAN5.3GHz	802.11a 6Mbps	Back	5mm	Ant 5+8(5)	-	Full power	60	5300	16.07	17.50	1.390	86.33	1.158	0.04	0.511	0.823
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Front	5mm	Ant 5+8(5)	-	Simultaneous	50	5250	12.18	14.00	1.521	85.06	1.176	-0.03	0.137	0.245
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Back	5mm	Ant 5+8(5)	-	Simultaneous	50	5250	12.18	14.00	1.521	85.06	1.176	-0.03	0.219	0.392
	WLAN5.3GHz	802.11a 6Mbps	Front	17mm	Ant 5+8(5)	-	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.17	0.104	0.190
	WLAN5.3GHz	802.11a 6Mbps	Back	18mm	Ant 5+8(5)	-	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	-0.14	0.158	0.289
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+8(8)	-	Standalone	138	5690	13.27	15.00	1.488	85.49	1.170	0.09	0.260	0.453
67	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+8(8)	-	Standalone	138	5690	13.27	15.00	1.488	85.49	1.170	0.04	0.629	**1.095**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+8(5)	-	Standalone	122	5610	13.90	15.50	1.445	85.49	1.170	0.11	0.603	1.020
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	5mm	Ant 5+8(8)	-	Simultaneous	114	5570	7.92	9.50	1.439	85.06	1.176	0.03	0.127	0.215
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	5mm	Ant 5+8(8)	-	Simultaneous	114	5570	7.92	9.50	1.439	85.06	1.176	-0.04	0.213	0.360
	WLAN5.5GHz	802.11ax-HE40 MCS0	Front	17mm	Ant 5+8(5)	-	Full power	142	5710	17.82	19.50	1.472	85.59	1.168	0.04	0.190	0.327
	WLAN5.5GHz	802.11ax-HE40 MCS0	Back	18mm	Ant 5+8(5)	-	Full power	142	5710	17.82	19.50	1.472	85.59	1.168	0.09	0.460	0.791
	WLAN5.8GHz	802.11ax-HE40 MCS0	Front	5mm	Ant 5+8(8)	-	Standalone	159	5795	16.73	18.00	1.340	85.59	1.168	0.08	0.286	0.448
68	WLAN5.8GHz	802.11ax-HE40 MCS0	Back	5mm	Ant 5+8(8)	-	Standalone	159	5795	16.73	18.00	1.340	85.59	1.168	0.02	0.742	**1.161**
	WLAN5.8GHz	802.11ax-HE40 MCS0	Back	5mm	Ant 5+8(8)	-	Standalone	151	5755	16.54	18.00	1.400	85.59	1.168	-0.07	0.705	1.152
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+8(8)	-	Simultaneous	155	5775	11.67	13.50	1.524	85.49	1.170	0.05	0.102	0.182
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+8(8)	-	Simultaneous	155	5775	11.67	13.50	1.524	85.49	1.170	-0.11	0.210	0.374
	WLAN5.8GHz	802.11a 6Mbps	Front	17mm	Ant 5+8(8)	-	Standalone	165	5825	17.69	19.00	1.352	86.33	1.158	0.04	0.163	0.255
	WLAN5.8GHz	802.11a 6Mbps	Back	18mm	Ant 5+8(8)	-	Standalone	165	5825	17.69	19.00	1.352	86.33	1.158	-0.04	0.373	0.584

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)	Measured APD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Front	5mm	Ant 5+8(8)	Full power	47	6185	13.14	15.00	1.535	85.71	1.167	0.08	0.095	0.170	0.645
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(8)	Full power	47	6185	13.14	15.00	1.535	85.71	1.167	0.01	0.371	0.664	2.51
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(8)	Full power	15	6025	12.71	14.50	1.510	85.71	1.167	0.03	0.289	0.509	1.96
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(8)	Full power	111	6505	12.93	14.50	1.435	85.71	1.167	-0.08	0.345	0.578	2.33
88	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	0.04	0.467	**0.688**	**3.16**
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(5)	Full power	207	6985	12.20	14.00	1.514	85.71	1.167	-0.08	0.386	0.682	2.63
	WLAN6GHz	802.11ax-HE160 MCS0	Front	5mm	Ant 5+8(8)	Simultaneous	15	6025	10.82	12.50	1.472	85.71	1.167	0.1	0.056	0.096	0.362
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(8)	Simultaneous	15	6025	10.82	12.50	1.472	85.71	1.167	-0.18	0.213	0.366	1.41
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(8)	Simultaneous	47	6185	10.78	12.50	1.486	85.71	1.167	0.1	0.167	0.290	1.11
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(5)	Simultaneous	111	6505	10.98	12.50	1.419	85.71	1.167	0.12	0.184	0.305	1.22
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(5)	Simultaneous	143	6665	10.56	12.00	1.393	85.71	1.167	0.08	0.228	0.371	1.52
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(5)	Simultaneous	207	6985	9.31	11.00	1.476	85.71	1.167	-0.17	0.208	0.358	1.38
	WLAN6GHz	802.11ax-HE160 MCS0	Front	17mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	0.06	0.044	0.065	0.386
	WLAN6GHz	802.11ax-HE160 MCS0	Back	18mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	0.03	0.137	0.202	1.16

17.4 Product specific 10g SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
835MHz																				
69	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	4182	836.4	23.03	24.00	1.250	-	-	0.06	2.010	**2.513**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	4132	826.4	22.95	24.00	1.274	-	-	-0.02	1.230	1.566
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	4233	846.6	22.96	24.00	1.271	-	-	0.1	1.790	2.274
70	LTE Band 26	15M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26865	831.5	23.06	24.00	1.242	-	-	-0.1	1.780	**2.210**
	LTE Band 26	15M	QPSK	36	0	-	Back	0mm	Ant 0	DSI 6	26865	831.5	21.95	23.00	1.274	-	-	0.03	1.050	1.337
	LTE Band 26	15M	QPSK	75	0	-	Back	0mm	Ant 0	DSI 6	26865	831.5	21.81	23.00	1.315	-	-	-0.15	1.050	1.381
	LTE Band 26_Other Path	15M	QPSK	1	0	-	Back	0mm	Ant 0	DSI 6	26865	831.5	23.01	24.00	1.256	-	-	-0.15	1.160	1.457
	LTE Band 5_Other Path	10M	QPSK	1	0		Back	0mm	Ant 0	DSI 6	20525	836.5	22.90	24.00	1.288			0.04	0.978	1.260
1750MHz																				
71	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	1413	1732.6	22.92	24.00	1.282	-	-	-0.12	2.240	**2.872**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	1312	1712.4	22.87	24.00	1.297	-	-	-0.08	2.150	2.789
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	0mm	Ant 1	DSI 6	1513	1752.6	22.89	24.00	1.291	-	-	-0.18	2.080	2.686
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 6	1413	1732.6	22.92	24.00	1.282	-	-	-0.13	2.060	2.642
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 6	1312	1712.4	22.87	24.00	1.297	-	-	-0.03	2.040	2.646
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 6	1513	1752.6	22.89	24.00	1.291	-	-	0.02	2.150	2.776
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 6	1413	1732.6	22.92	24.00	1.282	-	-	0.02	1.830	2.347
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 6	1312	1712.4	22.87	24.00	1.297	-	-	0.11	1.750	2.270
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 6	1513	1752.6	22.89	24.00	1.291	-	-	-0.17	2.000	2.582
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	132322	1745	22.97	24.00	1.268	-	-	-0.1	2.200	2.789
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	132072	1720	22.70	24.00	1.349	-	-	0.01	2.300	3.103
	LTE Band 66	20M	QPSK	1	0	-	Front	0mm	Ant 1	DSI 6	132572	1770	22.68	24.00	1.355	-	-	-0.15	2.090	2.832
	LTE Band 66	20M	QPSK	50	0	-	Front	0mm	Ant 1	DSI 6	132322	1745	21.89	23.00	1.291	-	-	0.19	1.220	1.575
	LTE Band 66	20M	QPSK	100	0	-	Front	0mm	Ant 1	DSI 6	132322	1745	21.88	23.00	1.294	-	-	0.07	1.240	1.605
72	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	22.97	24.00	1.268	-	-	-0.01	2.530	**3.207**
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	132072	1720	22.70	24.00	1.349	-	-	-0.18	2.320	3.130
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	132572	1770	22.68	24.00	1.355	-	-	0.03	2.340	3.171
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	21.89	23.00	1.291	-	-	-0.15	1.490	1.924
	LTE Band 66	20M	QPSK	100	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	21.88	23.00	1.294	-	-	-0.08	1.540	1.993
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	132322	1745	22.97	24.00	1.268	-	-	-0.17	2.130	2.700
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	132072	1720	22.70	24.00	1.349	-	-	-0.08	2.320	3.130
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	132572	1770	22.68	24.00	1.355	-	-	-0.04	2.070	2.805
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	132322	1745	21.89	23.00	1.291	-	-	-0.08	1.140	1.472
	LTE Band 66	20M	QPSK	100	0	-	Bottom Side	0mm	Ant 1	DSI 6	132322	1745	21.88	23.00	1.294	-	-	0.17	1.160	1.501
	LTE Band 66 Other Path	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	22.91	24.00	1.285	-	-	-0.08	1.150	1.478
	LTE Band 4 Other Path	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	20175	1732.5	22.87	24.00	1.297	-	-	-0.04	1.120	1.453
	LTE Band 4 Other PA	20M	QPSK	1	0		Back	0mm	Ant 1	DSI 6	20175	1732.5	22.91	24.00	1.285	-	-	0.03	1.060	1.362
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	132322	1745	21.51	22.60	1.285	-	-	0.07	1.930	2.481
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	132072	1720	21.49	22.60	1.291	-	-	0.06	1.840	2.376
	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	132572	1770	21.43	22.60	1.309	-	-	-0.03	1.860	2.435
	LTE Band 66	20M	QPSK	50	0	-	Back	0mm	Ant 4	DSI 6	132322	1745	20.99	22.00	1.262	-	-	-0.03	1.010	1.274
	LTE Band 66	20M	QPSK	100	0	-	Back	0mm	Ant 4	DSI 6	132322	1745	20.93	22.00	1.279	-	-	0.05	1.220	1.561
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	132322	1745	21.51	22.60	1.285	-	-	-0.11	1.650	2.121
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	132072	1720	21.49	22.60	1.291	-	-	-0.12	1.700	2.195
	LTE Band 66	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	132572	1770	21.43	22.60	1.309	-	-	0.03	1.860	2.435
	LTE Band 66	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	132322	1745	20.99	22.00	1.262	-	-	-0.16	0.959	1.210
	LTE Band 66	20M	QPSK	100	0	-	Top Side	0mm	Ant 4	DSI 6	132322	1745	20.93	22.00	1.279	-	-	-0.09	0.946	1.210
	LTE Band 66	20M	QPSK	1	0	-	Back	17mm	Ant 4	DSI 4	132322	1745	22.15	23.00	1.216	-	-	-0.04	0.219	0.266
	LTE Band 66	20M	QPSK	1	0	-	Top Side	16mm	Ant 4	DSI 4	132322	1745	22.15	23.00	1.216	-	-	-0.08	0.320	0.389

	LTE Band 66 Other PA	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	132322	1745	21.41	22.60	1.315	-	-	-0.06	1.870	2.459
	LTE Band 4 Other PA	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	20175	1732.5	21.31	22.60	1.346	-	-	-0.05	1.720	2.315
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	349000	1745	23.25	24.00	1.189	-	-	-0.05	1.920	2.282
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	349000	1745	22.87	24.00	1.297	-	-	0	1.880	2.439
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Front	0mm	Ant 1	DSI 6	349000	1745	22.15	23.00	1.216	-	-	-0.13	1.970	2.396
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	349000	1745	23.25	24.00	1.189	-	-	0.06	2.060	2.448
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	349000	1745	22.87	24.00	1.297	-	-	-0.01	1.880	2.439
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	349000	1745	22.15	23.00	1.216	-	-	-0.09	1.940	2.359
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	349000	1745	23.25	24.00	1.189	-	-	0.05	1.730	2.056
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	349000	1745	22.87	24.00	1.297	-	-	0.02	1.750	2.270
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	349000	1745	22.15	23.00	1.216	-	-	-0.13	1.790	2.177
	FR1 n66 Other PA	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	349000	1745	23.08	24.00	1.236	-	-	-0.13	0.392	0.484
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	349000	1745	20.95	22.00	1.274	-	-	0.08	1.680	2.139
73	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	349000	1745	20.93	22.00	1.279	-	-	0.06	1.930	**2.469**
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	349000	1745	20.91	22.00	1.285	-	-	0.01	1.430	1.838
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	0mm	Ant 4	DSI 6	349000	1745	20.95	22.00	1.274	-	-	0.03	1.400	1.783
	FR1 n66	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	0mm	Ant 4	DSI 6	349000	1745	20.93	22.00	1.279	-	-	-0.08	1.570	2.009
	FR1 n66	40M	QPSK	216	0	DFT-SCS-15KHz	Top Side	0mm	Ant 4	DSI 6	349000	1745	20.91	22.00	1.285	-	-	-0.08	1.310	1.684
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Back	17mm	Ant 4	DSI 4	349000	1745	22.43	24.00	1.435	-	-	-0.03	0.135	0.194
	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	16mm	Ant 4	DSI 4	349000	1745	22.43	24.00	1.435	-	-	-0.03	0.159	0.228
	FR1 n66 Other PA	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	349000	1745	20.98	22.00	1.265	-	-	0.08	1.850	2.340
								1900MHz												
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 1	DSI 6	9400	1880	21.86	23.30	1.393	-	-	0.04	1.140	1.588
74	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 6	9400	1880	21.86	23.30	1.393	-	-	-0.06	2.260	**3.149**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 6	9262	1852.4	21.81	23.30	1.409	-	-	0.16	2.100	2.960
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	0mm	Ant 1	DSI 6	9538	1907.6	21.79	23.30	1.416	-	-	0.1	2.030	2.874
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	6mm	Ant 1	DSI 4	9400	1880	22.81	24.00	1.315	-	-	-0.07	0.670	0.881
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	9mm	Ant 1	DSI 4	9400	1880	22.81	24.00	1.315	-	-	0.05	0.345	0.454
75	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	26340	1880	22.34	23.50	1.306	-	-	-0.03	2.350	**3.070**
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	26140	1860	22.31	23.50	1.315	-	-	-0.17	2.150	2.828
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	26590	1905	22.21	23.50	1.346	-	-	-0.08	2.120	2.853
	LTE Band 25	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	26340	1880	21.87	23.00	1.297	-	-	-0.04	1.960	2.542
	LTE Band 25	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	26140	1860	21.82	23.00	1.312	-	-	-0.08	1.850	2.428
	LTE Band 25	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	26590	1905	21.78	23.00	1.324	-	-	0.17	1.630	2.159
	LTE Band 25	20M	QPSK	100	0	-	Back	0mm	Ant 1	DSI 6	26340	1880	21.82	23.00	1.312	-	-	0.18	2.020	2.651
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	26340	1880	22.34	23.50	1.306	-	-	-0.04	2.140	2.795
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	26140	1860	22.31	23.50	1.315	-	-	-0.08	2.170	2.854
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	26590	1905	22.21	23.50	1.346	-	-	-0.13	1.860	2.503
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	26340	1880	21.87	23.00	1.297	-	-	-0.13	1.730	2.244
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	26140	1860	21.82	23.00	1.312	-	-	0.06	1.800	2.362
	LTE Band 25	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	26590	1905	21.78	23.00	1.324	-	-	-0.03	1.390	1.841
	LTE Band 25	20M	QPSK	100	0	-	Bottom Side	0mm	Ant 1	DSI 6	26340	1880	21.82	23.00	1.312	-	-	-0.03	1.730	2.270
	LTE Band 25	20M	QPSK	1	0	-	Back	6mm	Ant 1	DSI 4	26340	1880	22.98	24.00	1.265	-	-	0.03	0.608	0.769
	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	9mm	Ant 1	DSI 4	26340	1880	22.98	24.00	1.265	-	-	-0.16	0.591	0.747
	LTE Band 2 Other Path	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	18900	1880	22.46	23.50	1.271	-	-	-0.02	0.650	0.826
	LTE Band 2 Other PA	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	18900	1880	22.41	23.50	1.285		1.000	-0.14	0.632	0.812
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	26340	1880	20.63	21.90	1.340	-	-	0.1	1.600	2.143
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	26140	1860	20.51	21.90	1.377	-	-	-0.18	1.370	1.887
	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	26590	1905	20.51	21.90	1.377	-	-	0.1	1.560	2.148
	LTE Band 25	20M	QPSK	50	0	-	Back	0mm	Ant 4	DSI 6	26340	1880	20.54	21.90	1.368	-	-	0.12	1.440	1.970
	LTE Band 25	20M	QPSK	100	0	-	Back	0mm	Ant 4	DSI 6	26340	1880	20.57	21.90	1.358	-	-	-0.03	1.610	2.187
	LTE Band 25	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	26340	1880	20.63	21.90	1.340	-	-	-0.05	1.860	2.492
	LTE Band 25	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	26140	1860	20.51	21.90	1.377	-	-	0.14	1.630	2.245
	LTE Band 25	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	26590	1905	20.51	21.90	1.377	-	-	0.11	1.730	2.383
	LTE Band 25	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	26340	1880	20.54	21.90	1.368	-	-	-0.05	1.460	1.997
	LTE Band 25	20M	QPSK	100	0	-	Top Side	0mm	Ant 4	DSI 6	26340	1880	20.57	21.90	1.358	-	-	-0.17	1.370	1.861

	LTE Band 25	20M	QPSK	1	0	-	Back	17mm	Ant 4	DSI 4	26340	1880	22.21	23.00	1.199	-	-	-0.09	0.219	0.263
	LTE Band 25	20M	QPSK	1	0		Top Side	16mm	Ant 4	DSI 4	26340	1880	22.21	23.00	1.199	-	-	0.11	0.314	0.377
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	376000	1880	22.46	23.40	1.242	-	-	-0.09	1.600	1.987
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	0mm	Ant 1	DSI 6	376000	1880	22.39	23.40	1.262	-	-	-0.08	1.550	1.956
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	376000	1880	22.46	23.40	1.242	-	-	-0.03	2.510	3.117
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	372000	1860	22.41	23.40	1.256	-	-	-0.15	2.380	2.989
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	380000	1900	22.35	23.40	1.274	-	-	0.02	2.320	2.955
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	376000	1880	22.39	23.40	1.262	-	-	0.07	2.470	3.117
76	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	372000	1860	22.23	23.40	1.309	-	-	0.11	2.580	**3.378**
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	380000	1900	22.13	23.40	1.340	-	-	0.16	2.140	2.867
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	376000	1880	22.41	23.00	1.146	-	-	0.13	2.350	2.692
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	6mm	Ant 1	DSI 4	376000	1880	23.48	24.00	1.127	-	-	0.04	0.491	0.553
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	9mm	Ant 1	DSI 4	376000	1880	23.48	24.00	1.127	-	-	-0.08	0.453	0.511
	FR1 n2 Other PA	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	372000	1860	22.31	23.40	1.285	-	-	0.16	0.973	1.251
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	376000	1880	21.35	22.30	1.245	-	-	0.07	1.970	2.452
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	372000	1860	21.29	22.30	1.262	-	-	0.17	1.110	1.401
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	380000	1900	21.32	22.30	1.253	-	-	0.06	1.220	1.529
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	376000	1880	21.34	22.30	1.247	-	-	0	1.870	2.333
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	372000	1860	21.30	22.30	1.259	-	-	-0.04	1.410	1.775
	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	380000	1900	21.32	22.30	1.253	-	-	-0.15	1.490	1.867
	FR1 n2	20M	QPSK	100	0	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	376000	1880	21.31	22.30	1.256	-	-	0.11	1.690	2.123
	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	17mm	Ant 4	DSI 4	376000	1880	22.83	24.00	1.309	-	-	0.05	0.164	0.215
	FR1 n2 Other PA	20M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	376000	1880	21.37	22.30	1.239	-	-	-0.03	1.910	2.366
2600MHz																				
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	21100	2535	21.06	21.80	1.186	-	-	0.02	1.430	1.696
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 1	DSI 6	21100	2535	21.04	21.80	1.191	-	-	-0.02	0.931	1.109
77	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	21100	2535	21.06	21.80	1.186	-	-	-0.07	2.390	**2.834**
	LTE Band 7C	20M	QPSK	1	99	-	Bottom Side	0mm	Ant 1	DSI 6	21100+ 21298	2535+ 2554.8	20.85	21.80	1.245	-	-	0.16	2.260	2.813
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	20850	2510	20.97	21.80	1.211	-	-	0.17	2.330	2.821
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	21350	2560	21.02	21.80	1.197	-	-	0.18	2.360	2.824
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	21100	2535	21.04	21.80	1.191	-	-	0.03	1.520	1.811
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	20850	2510	21.01	21.80	1.199	-	-	0.01	1.540	1.847
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	21350	2560	21.03	21.80	1.194	-	-	0.04	1.430	1.707
	LTE Band 7	20M	QPSK	100	0	-	Bottom Side	0mm	Ant 1	DSI 6	21100	2535	21.03	21.80	1.194	-	-	-0.16	1.500	1.791
	LTE Band 7	20M	QPSK	1	0	-	Back	6mm	Ant 1	DSI 4	21100	2535	23.03	24.00	1.250	-	-	0.02	0.518	0.648
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	9mm	Ant 1	DSI 4	21100	2535	23.03	24.00	1.250	-	-	0.07	0.320	0.400
	LTE Band 7 Other Path	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	21100	2535	20.94	21.80	1.219	-	-	0.16	2.170	2.645
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	21100	2535	18.70	20.00	1.349	-	-	-0.08	1.730	2.334
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	20850	2510	18.66	20.00	1.361	-	-	0.05	1.700	2.314
	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	21350	2560	18.59	20.00	1.384	-	-	0.06	1.540	2.131
	LTE Band 7	20M	QPSK	50	0	-	Back	0mm	Ant 4	DSI 6	21100	2535	18.52	20.00	1.406	-	-	-0.09	1.090	1.533
	LTE Band 7	20M	QPSK	100	0	-	Back	0mm	Ant 4	DSI 6	21100	2535	18.57	20.00	1.390	-	-	0.12	1.220	1.696
	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	21100	2535	18.70	20.00	1.349	-	-	-0.13	1.810	2.442
	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	20850	2510	18.66	20.00	1.361	-	-	0.03	1.710	2.328
	LTE Band 7	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	21350	2560	18.59	20.00	1.384	-	-	0.18	1.750	2.421
	LTE Band 7	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	21100	2535	18.52	20.00	1.406	-	-	0.16	1.240	1.743
	LTE Band 7	20M	QPSK	100	0	-	Top Side	0mm	Ant 4	DSI 6	21100	2535	18.57	20.00	1.390	-	-	0.18	1.190	1.654
	LTE Band 7	20M	QPSK	1	0	-	Back	17mm	Ant 4	DSI 4	21100	2535	22.74	24.00	1.337	-	-	0.02	0.258	0.345
	LTE Band 7	20M	QPSK	1	0	-	Top Side	16mm	Ant 4	DSI 4	21100	2535	22.74	24.00	1.337	-	-	0.16	0.302	0.404
	LTE Band 7 Other PA	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	21100	2535	18.91	20.00	1.285	-	-	-0.02	1.750	2.249
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	40620	2593	23.17	24.00	1.211	62.9	1.006	0.13	2.140	2.606
78	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	39750	2506	23.11	24.00	1.227	62.9	1.006	-0.1	2.290	**2.828**
	LTE Band 41C	20M	QPSK	1	99	-	Bottom Side	0mm	Ant 1	DSI 6	39750+ 39948	2506+ 2525.8	23.04	24.00	1.247	62.9	1.006	0.17	2.180	2.736
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	40185	2549.5	23.12	24.00	1.225	62.9	1.006	0.02	2.150	2.649
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	41055	2636.5	23.07	24.00	1.239	62.9	1.006	0.16	2.080	2.592

	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	41490	2680	23.16	24.00	1.213	62.9	1.006	-0.03	2.070	2.527
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	40620	2593	22.08	23.00	1.236	62.9	1.006	0.07	1.370	1.703
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	39750	2506	21.80	23.00	1.318	62.9	1.006	0.18	1.250	1.658
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	40185	2549.5	21.94	23.00	1.276	62.9	1.006	-0.04	1.210	1.554
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	41055	2636.5	21.82	23.00	1.312	62.9	1.006	-0.08	1.330	1.756
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	0mm	Ant 1	DSI 6	41490	2680	21.92	23.00	1.282	62.9	1.006	-0.13	1.190	1.535
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	0mm	Ant 1	DSI 6	40620	2593	21.97	23.00	1.268	62.9	1.006	-0.09	1.380	1.760
	LTE Band 41 Other Path	20M	QPSK	1	0	-	Bottom Side	0mm	Ant 1	DSI 6	40620	2593	23.11	24.00	1.227	62.9	1.006	0	1.550	1.914
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	40620	2593	20.79	22.00	1.321	62.9	1.006	-0.17	1.620	2.153
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	39750	2506	20.69	22.00	1.352	62.9	1.006	0.18	1.700	2.312
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	40185	2549.5	20.71	22.00	1.346	62.9	1.006	-0.17	1.690	2.288
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	41055	2636.5	20.76	22.00	1.330	62.9	1.006	-0.04	1.320	1.767
	LTE Band 41	20M	QPSK	1	0	-	Back	0mm	Ant 4	DSI 6	41490	2680	20.67	22.00	1.358	62.9	1.006	-0.05	1.570	2.145
	LTE Band 41	20M	QPSK	50	0	-	Back	0mm	Ant 4	DSI 6	40620	2593	20.78	22.00	1.324	62.9	1.006	0	1.020	1.359
	LTE Band 41	20M	QPSK	100	0	-	Back	0mm	Ant 4	DSI 6	40620	2593	20.77	22.00	1.328	62.9	1.006	-0.13	1.180	1.577
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	40620	2593	20.79	22.00	1.321	62.9	1.006	0.17	1.870	2.486
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	39750	2506	20.69	22.00	1.352	62.9	1.006	0	1.680	2.285
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	40185	2549.5	20.71	22.00	1.346	62.9	1.006	0.08	1.890	2.559
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	41055	2636.5	20.76	22.00	1.330	62.9	1.006	-0.15	1.450	1.941
	LTE Band 41	20M	QPSK	1	0	-	Top Side	0mm	Ant 4	DSI 6	41490	2680	20.67	22.00	1.358	62.9	1.006	0.11	1.610	2.200
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	40620	2593	20.78	22.00	1.324	62.9	1.006	-0.02	1.230	1.639
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	39750	2506	20.74	22.00	1.337	62.9	1.006	-0.08	1.160	1.560
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	40185	2549.5	20.75	22.00	1.334	62.9	1.006	-0.04	1.050	1.409
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	41055	2636.5	20.71	22.00	1.346	62.9	1.006	-0.08	1.110	1.503
	LTE Band 41	20M	QPSK	50	0	-	Top Side	0mm	Ant 4	DSI 6	41490	2680	20.63	22.00	1.371	62.9	1.006	0.17	1.090	1.503
	LTE Band 41	20M	QPSK	100	0	-	Top Side	0mm	Ant 4	DSI 6	40620	2593	20.77	22.00	1.328	62.9	1.006	-0.16	1.170	1.563
	LTE Band 41	20M	QPSK	1	0	-	Back	17mm	Ant 4	DSI 4	40620	2593	22.58	24.00	1.387	62.9	1.006	0.01	0.164	0.229
	LTE Band 41	20M	QPSK	1	0	-	Top Side	16mm	Ant 4	DSI 4	40620	2593	22.58	24.00	1.387	62.9	1.006	-0.01	0.201	0.280
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	507000	2535	21.49	22.50	1.262	-	-	0.1	2.350	2.965
79	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	507000	2535	21.48	22.50	1.265	-	-	-0.16	2.490	**3.149**
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	507000	2535	21.47	22.50	1.268	-	-	-0.04	2.390	3.030
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	9mm	Ant 1	DSI 4	507000	2535	23.47	24.00	1.130	-	-	-0.04	0.290	0.328
	FR1 n7 Other Path	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	507000	2535	21.43	22.50	1.279	-	-	-0.09	0.933	1.194
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	507000	2535	18.73	19.80	1.279	-	-	-0.16	1.540	1.970
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	0mm	Ant 4	DSI 6	507000	2535	18.71	19.80	1.285	-	-	-0.18	1.510	1.941
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	0mm	Ant 4	DSI 6	507000	2535	18.73	19.80	1.279	-	-	0.11	1.800	2.303
	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	0mm	Ant 4	DSI 6	507000	2535	18.71	19.80	1.285	-	-	-0.18	1.920	2.468
	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Top Side	0mm	Ant 4	DSI 6	507000	2535	18.69	19.80	1.291	-	-	-0.08	1.700	2.195
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	17mm	Ant 4	DSI 4	507000	2535	23.25	24.00	1.189	-	-	-0.1	0.213	0.253
	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	16mm	Ant 4	DSI 4	507000	2535	23.25	24.00	1.189	-	-	0.18	0.250	0.297
	FR1 n7 Other Path	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	0mm	Ant 4	DSI 6	507000	2535	18.74	19.80	1.276	-	-	-0.17	1.740	2.221
3500MHz																				
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	0mm	Ant 5	DSI 6	42590	3500	20.23	21.60	1.371	62.9	1.006	-0.14	0.845	1.165
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Back	0mm	Ant 5	DSI 6	42590	3500	20.22	21.60	1.374	62.9	1.006	0.06	0.709	0.980
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 6	42590	3500	20.23	21.60	1.371	62.9	1.006	0.12	1.730	2.386
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 6	42190	3460	20.18	21.60	1.387	62.9	1.006	-0.16	1.690	2.358
80	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 6	42990	3540	20.16	21.60	1.393	62.9	1.006	0.07	1.820	**2.551**
	LTE Band 42C Part 27Q	20M	QPSK	1	0	-	Top Side	0mm	Ant 5	DSI 6	42990+ 42792	3540+ 3520.2	20.15	21.60	1.396	62.9	1.006	0.03	1.720	2.416
	LTE Band 42 Part 27Q	20M	QPSK	50	0	-	Top Side	0mm	Ant 5	DSI 6	42590	3500	20.22	21.60	1.374	62.9	1.006	-0.02	1.280	1.769
	LTE Band 42 Part 27Q	20M	QPSK	100	0	-	Top Side	0mm	Ant 5	DSI 6	42590	3500	20.18	21.60	1.387	62.9	1.006	0.08	1.270	1.772
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	15mm	Ant 5	DSI 4	42590	3500	23.15	24.00	1.216	62.9	1.006	-0.04	0.235	0.288
	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Top Side	14mm	Ant 5	DSI 4	42590	3500	23.15	24.00	1.216	62.9	1.006	-0.05	0.331	0.405
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 5	DSI 6	633334	3500.01	18.65	19.80	1.303	-	-	-0.13	0.734	0.957
	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 5	DSI 6	633334	3500.01	18.64	19.80	1.306	-	-	0.06	0.886	1.157
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	633334	3500.01	18.65	19.80	1.303	-	-	-0.03	1.650	2.150
81	FR1 n78 Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	633334	3500.01	18.64	19.80	1.306	-	-	0.15	1.890	**2.469**

	FR1 n78 Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	633334	3500.01	18.61	19.80	1.315	-	-	-0.03	1.640	2.157
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	15mm	Ant 5	DSI 4	633334	3500.01	23.68	24.00	1.076	-	-	-0.13	0.258	0.278
	FR1 n78 Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	14mm	Ant 5	DSI 4	633334	3500.01	23.68	24.00	1.076	-	-	-0.01	0.319	0.343
	FR1 n78 Part 27Q Other Path	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	0mm	Ant 5	DSI 6	633334	3500.01	18.45	19.80	1.365	-	-	-0.09	1.700	2.320
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 3	DSI 4	633334	3500.01	16.62	17.80	1.312	-	-	-0.05	1.640	2.152
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 3	DSI 4	633334	3500.01	16.61	17.80	1.315	-	-	-0.08	1.860	2.446
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Back	0mm	Ant 3	DSI 4	633334	3500.01	16.57	17.80	1.327	-	-	0.16	1.490	1.978
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 7	DSI 6	633334	3500.01	16.79	17.80	1.262	-	-	0.01	1.780	2.246
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	0mm	Ant 7	DSI 6	633334	3500.01	16.78	17.80	1.265	-	-	-0.01	1.950	2.466
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Right Side	0mm	Ant 7	DSI 6	633334	3500.01	16.74	17.80	1.276	-	-	-0.06	1.320	1.685
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	11mm	Ant 7	DSI 4	633334	3500.01	22.28	23.00	1.180	-	-	0.05	0.162	0.191
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Back	0mm	Ant 9	DSI 4	633334	3500.01	20.79	22.00	1.321	-	-	0.02	1.350	1.784
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Back	0mm	Ant 9	DSI 4	633334	3500.01	20.75	22.00	1.334	-	-	0.07	1.310	1.747
	FR1 n78 SRS Part 27Q	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	0mm	Ant 9	DSI 4	633334	3500.01	20.79	22.00	1.321	-	-	-0.14	1.590	2.101
	FR1 n78 SRS Part 27Q	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	0mm	Ant 9	DSI 4	633334	3500.01	20.75	22.00	1.334	-	-	0.08	1.510	2.014
	FR1 n78 SRS Part 27Q	100M	QPSK	270	0	DFT-SCS-30KHz	Right Side	0mm	Ant 9	DSI 4	633334	3500.01	19.72	21.00	1.343	-	-	-0.13	1.320	1.772

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)
2450MHz																
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 6+8(6)	Full power	11	2462	19.08	21.00	1.556	87.19	1.147	0.05	0.669	1.194
82	WLAN2.4GHz	802.11b 1Mbps	Right Side	0mm	Ant 6+8(6)	Full power	11	2462	19.08	21.00	1.556	87.19	1.147	-0.08	1.300	**2.320**
	WLAN2.4GHz	802.11b 1Mbps	Right Side	0mm	Ant 6+8(6)	Full power	6	2437	19.11	21.00	1.545	87.19	1.147	-0.03	1.070	1.896
	WLAN2.4GHz	802.11b 1Mbps	Back	0mm	Ant 6+8(6)	Simultaneous	11	2462	15.01	16.50	1.409	87.19	1.147	0.1	0.307	0.496
	WLAN2.4GHz	802.11b 1Mbps	Right Side	0mm	Ant 6+8(6)	Simultaneous	11	2462	15.01	16.50	1.409	87.19	1.147	-0.18	0.591	0.955
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	Full power	11	2462	19.08	21.00	1.556	87.19	1.147	0.07	0.296	0.528
	WLAN2.4GHz	802.11b 1Mbps	Right Side	8mm	Ant 6+8(6)	Full power	11	2462	19.08	21.00	1.556	87.19	1.147	-0.07	0.343	0.612
5000MHz																
	WLAN5.2GHz	802.11ax-HE40 MCS0	Back	0mm	Ant 5+8(8)	Full power	46	5230	16.97	18.50	1.422	85.59	1.168	-0.03	0.136	0.226
	WLAN5.2GHz	802.11ax-HE40 MCS0	Right Side	0mm	Ant 5+8(8)	Full power	46	5230	16.97	18.50	1.422	85.59	1.168	0.12	0.518	0.861
86	WLAN5.2GHz	802.11ax-HE40 MCS0	Top Side	0mm	Ant 5+8(8)	Full power	46	5230	16.97	18.50	1.422	85.59	1.168	-0.07	0.775	**1.287**
	WLAN5.2GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+8(8)	Simultaneous	46	5230	16.43	18.00	1.435	86.11	1.161	0.06	0.119	0.198
	WLAN5.2GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+8(8)	Simultaneous	46	5230	16.43	18.00	1.435	86.11	1.161	0.08	0.318	0.530
	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+8(8)	Simultaneous	46	5230	16.43	18.00	1.435	86.11	1.161	-0.09	0.553	0.922
	WLAN5.2GHz	802.11ax-HE40 MCS0	Back	5mm	Ant 5+8(8)	Full power	46	5230	16.97	18.50	1.422	85.59	1.168	0.04	0.105	0.174
	WLAN5.2GHz	802.11ax-HE40 MCS0	Right Side	8mm	Ant 5+8(8)	Full power	46	5230	16.97	18.50	1.422	85.59	1.168	0.09	0.217	0.360
	WLAN5.2GHz	802.11ax-HE40 MCS0	Top Side	14mm	Ant 5+8(8)	Full power	46	5230	16.97	18.50	1.422	85.59	1.168	-0.05	0.097	0.161
	WLAN5.3GHz	802.11a 6Mbps	Front	0mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.18	0.296	0.541
	WLAN5.3GHz	802.11a 6Mbps	Back	0mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.16	0.159	0.291
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.07	0.417	0.762
83	WLAN5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.04	0.723	**1.321**
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+8(8)	Simultaneous	54	5270	16.17	18.00	1.522	86.11	1.161	-0.15	0.245	0.433
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+8(8)	Simultaneous	54	5270	16.17	18.00	1.522	86.11	1.161	0.19	0.136	0.240
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+8(8)	Simultaneous	54	5270	16.17	18.00	1.522	86.11	1.161	-0.18	0.341	0.603
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+8(8)	Simultaneous	54	5270	16.17	18.00	1.522	86.11	1.161	0.03	0.563	0.995
	WLAN5.3GHz	802.11n-HT40 MCS0	Front	5mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.05	0.140	0.256
	WLAN5.3GHz	802.11n-HT40 MCS0	Back	5mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	-0.03	0.111	0.203
	WLAN5.3GHz	802.11n-HT40 MCS0	Right Side	8mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	-0.03	0.229	0.419
	WLAN5.3GHz	802.11n-HT40 MCS0	Top Side	14mm	Ant 5+8(5)	Full power	64	5320	17.02	19.00	1.578	86.33	1.158	0.12	0.100	0.183
	WLAN5.5GHz	802.11ax-HE80 MCS0	Front	0mm	Ant 5+8(8)	Standalone	138	5690	16.32	17.50	1.312	85.39	1.171	-0.15	0.443	0.681
	WLAN5.5GHz	802.11ax-HE80 MCS0	Back	0mm	Ant 5+8(8)	Standalone	138	5690	16.32	17.50	1.312	85.39	1.171	-0.15	0.459	0.705
	WLAN5.5GHz	802.11ax-HE80 MCS0	Right Side	0mm	Ant 5+8(8)	Standalone	138	5690	16.32	17.50	1.312	85.39	1.171	-0.08	0.558	0.857
84	WLAN5.5GHz	802.11ax-HE80 MCS0	Top Side	0mm	Ant 5+8(8)	Standalone	138	5690	16.32	17.50	1.312	85.39	1.171	-0.02	1.710	**2.628**
	WLAN5.5GHz	802.11ax-HE80 MCS0	Top Side	0mm	Ant 5+8(8)	Standalone	122	5610	15.32	17.00	1.474	85.39	1.171	-0.17	1.410	2.433
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Front	0mm	Ant 5+8(8)	Simultaneous	114	5570	11.46	13.00	1.425	85.06	1.176	-0.11	0.144	0.241

	WLAN5.5GHz	802.11ac-VHT160 MCS0	Back	0mm	Ant 5+8(8)	Simultaneous	114	5570	11.46	13.00	1.425	85.06	1.176	-0.12	0.153	0.256
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Side	0mm	Ant 5+8(8)	Simultaneous	114	5570	11.46	13.00	1.425	85.06	1.176	-0.16	0.224	0.375
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Top Side	0mm	Ant 5+8(8)	Simultaneous	114	5570	11.46	13.00	1.425	85.06	1.176	-0.02	0.568	0.952
	WLAN5.5GHz	802.11ax-HE40 MCS0	Front	5mm	Ant 5+8(8)	Full power	142	5710	17.82	19.50	1.472	85.59	1.168	-0.17	0.226	0.388
	WLAN5.5GHz	802.11ax-HE40 MCS0	Back	5mm	Ant 5+8(8)	Full power	142	5710	17.82	19.50	1.472	85.59	1.168	0.09	0.403	0.693
	WLAN5.5GHz	802.11ax-HE40 MCS0	Right Side	8mm	Ant 5+8(8)	Full power	142	5710	17.82	19.50	1.472	85.59	1.168	-0.08	0.213	0.366
	WLAN5.5GHz	802.11ax-HE40 MCS0	Top Side	14mm	Ant 5+8(8)	Full power	142	5710	17.82	19.50	1.472	85.59	1.168	0.16	0.376	0.646
	WLAN5.8GHz	802.11a 6Mbps	Back	0mm	Ant 5+8(8)	Full power	165	5825	17.69	19.00	1.352	86.33	1.158	0.04	0.426	0.667
	WLAN5.8GHz	802.11a 6Mbps	Right Side	0mm	Ant 5+8(8)	Full power	165	5825	17.69	19.00	1.352	86.33	1.158	0.06	0.535	0.838
	WLAN5.8GHz	802.11a 6Mbps	Top Side	0mm	Ant 5+8(8)	Full power	165	5825	17.69	19.00	1.352	86.33	1.158	-0.03	1.310	2.051
85	WLAN5.8GHz	802.11a 6Mbps	Top Side	0mm	Ant 5+8(8)	Full power	157	5785	17.74	19.00	1.337	86.33	1.158	-0.02	1.750	**2.709**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+8(8)	Simultaneous	155	5775	13.26	15.00	1.493	85.49	1.170	0.08	0.141	0.246
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+8(8)	Simultaneous	155	5775	13.26	15.00	1.493	85.49	1.170	-0.07	0.256	0.447
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+8(8)	Simultaneous	155	5775	13.26	15.00	1.493	85.49	1.170	0.05	0.534	0.933
	WLAN5.8GHz	802.11a 6Mbps	Back	5mm	Ant 5+8(8)	Full power	165	5825	17.69	19.00	1.352	86.33	1.158	-0.08	0.385	0.603
	WLAN5.8GHz	802.11a 6Mbps	Right Side	8mm	Ant 5+8(8)	Full power	165	5825	17.69	19.00	1.352	86.33	1.158	-0.17	0.236	0.370
	WLAN5.8GHz	802.11a 6Mbps	Top Side	14mm	Ant 5+8(8)	Full power	165	5825	17.69	19.00	1.352	86.33	1.158	-0.16	0.320	0.501

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)	Measured APD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 5+8(8)	Standalone	15	6025	10.82	12.50	1.472	85.71	1.167	0.1	0.135	0.232	3.26
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 5+8(8)	Standalone	15	6025	10.82	12.50	1.472	85.71	1.167	-0.18	0.108	0.186	2.61
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	0mm	Ant 5+8(8)	Standalone	15	6025	10.82	12.50	1.472	85.71	1.167	0.12	0.171	0.294	4.13
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+8(8)	Standalone	15	6025	10.82	12.50	1.472	85.71	1.167	0.08	0.245	0.421	5.92
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+8(8)	Standalone	47	6185	10.78	12.50	1.486	85.71	1.167	-0.17	0.299	0.518	7.22
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+8(5)	Standalone	111	6505	9.96	11.50	1.426	85.71	1.167	-0.03	0.264	0.439	6.38
89	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+8(5)	Standalone	143	6665	10.07	11.50	1.390	85.71	1.167	-0.06	0.408	**0.662**	**9.86**
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+8(5)	Standalone	207	6985	7.78	9.50	1.486	85.71	1.167	0.14	0.257	0.446	6.21
	WLAN6GHz	802.11ax-HE160 MCS0	Front	5mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	-0.03	0.053	0.078	0.423
	WLAN6GHz	802.11ax-HE160 MCS0	Back	5mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	0.14	0.194	0.286	3.16
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	8mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	0.11	0.041	0.060	0.097
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	14mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	-0.05	0.093	0.137	2.08

17.5 Repeated SAR Measurement

<1g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	6	2437	17.17	19.00	1.524	87.19	1.147	-0.01	0.803	1	1.404
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	6	2437	17.17	19.00	1.524	87.19	1.147	0.02	0.798	1.006	1.395
1st	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23230	782	22.94	24.00	1.276	-	-	0.14	0.871	1	1.112
2nd	LTE Band 13	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	23230	782	22.94	24.00	1.276	-	-	0.04	0.811	1.074	1.035
1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4233	846.6	22.96	24.00	1.271	-	-	0.09	1.020	1	1.296
2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4233	846.6	22.96	24.00	1.271	-	-	-0.04	0.941	1.084	1.196
1st	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	349000	1745	21.28	22.10	1.208	-	-	0.06	1.070	1	1.292
2nd	FR1 n66	40M	QPSK	1	1	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	349000	1745	21.28	22.10	1.208	-	-	-0.04	0.931	1.149	1.124
1st	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	23.16	24.00	1.213	62.9	1.006	0.01	1.070	1	1.306
2nd	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	23.16	24.00	1.213	62.9	1.006	0.09	0.927	1.154	1.132
1st	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	376000	1880	22.46	23.50	1.271	-	-	0.03	1.020	1	1.296
2nd	FR1 n2	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 1	DSI 3	376000	1880	22.46	23.50	1.271	-	-	0.09	0.933	1.093	1.185
1st	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	-0.05	1.040	1	1.274
2nd	FR1 n78	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	633334	3500.01	19.82	20.70	1.225	-	-	0.09	0.933	1.115	1.143

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	4182	836.4	23.03	24.00	1.250	0.06	2.010	1	2.513
2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	0mm	Ant 0	DSI 6	4182	836.4	23.03	24.00	1.250	0.09	1.900	1.058	2.375
1st	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	22.97	24.00	1.268	-0.01	2.530	1	3.207
2nd	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 1	DSI 6	132322	1745	22.97	24.00	1.268	0.04	2.410	1.050	3.055
1st	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	372000	1860	22.23	23.40	1.309	0.11	2.580	1	3.378
2nd	FR1 n2	20M	QPSK	50	28	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	372000	1860	22.23	23.40	1.309	0.04	2.500	1.032	3.273
1st	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	507000	2535	21.48	22.50	1.265	-0.16	2.490	1	3.149
2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	0mm	Ant 1	DSI 6	507000	2535	21.48	22.50	1.265	0.09	2.390	1.042	3.023

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.

18. Spot Check Verification Data and Full Test Data Section

Spot Check General Note:

1. According to section 3.3, spot check conducted power test against the variant project based on the worst-case SAR condition from the original project was performed in this filing to demonstrate the test data from original project remains representative for the variant project. Detail Conducted power measurement referred to appendix E.
2. SAR spot check verification on the worst cases from the original model was performed to demonstrate the test data from original model remains representative for the variant model.
3. Per KDB 484596 D01 v02r03, the variant filings must demonstrate that the referenced test data remain valid for the variant device by including spot-check measurements that meet the following criteria:
   a. Spot-check measurements shall be made in correspondence to the worst-case scenario reported in the reference device filing, i.e., for those conditions that are the closest to non-compliance
   b. Spot-check measurements, while being always compliant with the applicable rule part(s) for the test under consideration, may show a deviation ddB from the reference data no larger than 3 dB:
   $$d_{dB} = | VdB – RdB | \leq 3 \text{ dB} \quad (1)$$
   where between VdB, the variant spot-check level in dB, and RdB is the corresponding measurement level in dB for the reference model.
4. The Spot check results showed that deviation of the SAR results did not exceed 3 dB, therefore referring to the guidance in the KDB inquiry, SAR data reuse is justified.
5. 1st as parent model, 2nd as variant model.

General Note:

15. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
    g. 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.
    h. 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)"
    i. For SAR testing of Bluetooth signal with 83.3% theoretical duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle) *83.3%".
    j. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
    k. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
    l. 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.
    m. 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.
16. 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
17. 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.
18. The device implements the power management and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the Qualcomm smart transmit will manage to ensure the power level not exceeding the associated power table. Details about the power management decision and sensor detection are 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.

19. For WLAN when transmit simultaneous with WWAN/BT, power reduction will be activated to head exposure condition. For WLAN when transmit simultaneous with WWAN and Proximity sensors trigger, power reduction will be activated to body-worn and extremity exposure conditions.
20. 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.
21. 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.
    d. For this device SAR for WWAN/WLAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of WCDMA Band II/V, LTE Band 2/5/7/26/38/41/42, 5GNR n5/n7/n26/n38/n41/n77/n78, WLAN2.4GHz/5.2GHz/5.8GHz, therefore product specific 10g SAR is necessary.
    e. WLAN 5.3/5.5GHz/6GHz tested the product specific 10g SAR since it has no hotspot mode.
    f. 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.
22. Although the headset SAR is greater than 0.8 W/kg, the headset SAR verified the worst of the non-headset SAR and less than non-headset SAR, so there is no need to be tested other channels.
23. 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).
24. LTE Band 7 at ant4 support different PAs, LTE Band 7/38/41 at ant1, LTE Band 5 at ant0/4, and 5GNR n41 at ant1, 5GNR n5 at ant4, 5GNR n77/n78 at ant5 support different Paths, and LTE/NR bands support Other PAs/Paths only under ENDC & UL CA. Some LTE/NR bands support different PAs/Paths for some antennas, whether it is the maximum power of Main PAs/Paths is higher than and very close to the other PAs/Paths, for RF exposure, after verification all PAs/Paths in a same position, so the worst-case PAs/Paths was chosen to perform full SAR testing to ensure the RF exposure is compliance and other PAs/Paths verified the worst case.
25. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
26. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
27. For determination of the scaling factor for report SAR of MIMO mode, if the hot spots are separated the scaling factors are individually determined from each transmit chain. Further simplification chose the worse SAR value and the worst scaling factor from each transmit chain perform reported SAR calculation conservatively. If the hot spots are not spatially separated, the scaling factor is determined from the worst number of each transmit chain.

LTE Note:

8. 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.
9. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
10. 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.
11. 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.
12. 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.
13. For LTE B5 / B26 / B38 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

14. LTE B5 / B38 SAR test was covered by B26 / B41; according to April 2015 TCB workshop, SAR test for overlapping LTE bands can be reduced if
    a. the maximum output power, including tolerance, for the smaller band is ≤ 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:

2. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
    g. 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.
    h. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
    i. 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.
    j. 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.
    k. 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.
    l. For 5G FR1 n5/n7/n26/n38/n41/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

DSI status description：

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

This WWAN bands enabled with Qualcomm Smart Transmit feature which located at chapter 6. The default power is Pmax power, When Plimit power higher than Pmax power, the output power will be limited at Pmax, and so the SAR will use Pmax power to do the testing.

Exposure Condition	DSI	Trigger Conditions
Head SAR	DSI 2	Receiver on
Body worn SAR	DSI 3	Sensor On
Hotspot SAR	DSI 7	Hotspot On
Extremity (Handheld) SAR	DSI 6	Sensor On
Sensor Off SAR	DSI 4	Sensor Off

18.1 Head SAR

Plot No.	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)	Deviation d_{dB}(dB)
835MHz																						
	1st	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	189	836.4	26.38	27.50	1.294	-	-	-0.17	0.194	0.251	0.27
01	2nd	GSM850	-	-	-	-	GPRS (4 Tx slots)	Left Cheek	0mm	Ant 0	DSI 2	189	836.4	26.27	27.50	1.327	-	-	0.08	0.178	**0.236**	
	1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	4182	836.4	23.03	24.00	1.250	-	-	0.03	0.216	0.270	0.16
02	2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	DSI 2	4182	836.4	22.93	24.00	1.279	-	-	0.06	0.203	**0.260**	
	1st	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	23.06	24.00	1.242	-	-	-0.08	0.153	0.190	0.05
	2nd	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	26865	831.5	23.05	24.00	1.245	-	-	0.08	0.151	0.188	
	2nd	LTE Band 5 Other Path	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	DSI 2	20525	836.5	22.79	24.00	1.321	-	-	0.03	0.133	0.176	
03	2nd	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	22.09	23.50	1.384	-	-	0.03	0.633	**0.876**	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	21.75	22.50	1.189	-	-	0.06	0.466	0.554	
	2nd	LTE Band 26	15M	QPSK	75	0	-	Right Cheek	0mm	Ant 4	DSI 2	26865	831.5	21.64	22.50	1.219	-	-	0.02	0.468	0.570	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	22.09	23.50	1.384	-	-	0.12	0.600	0.830	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	21.75	22.50	1.189	-	-	-0.16	0.436	0.518	
	2nd	LTE Band 26	15M	QPSK	75	0	-	Right Tilted	0mm	Ant 4	DSI 2	26865	831.5	21.64	22.50	1.219	-	-	-0.12	0.441	0.538	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	26865	831.5	22.09	23.50	1.384	-	-	0.07	0.394	0.545	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 4	DSI 2	26865	831.5	21.75	22.50	1.189	-	-	-0.02	0.220	0.261	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	26865	831.5	22.09	23.50	1.384	-	-	-0.13	0.373	0.516	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 4	DSI 2	26865	831.5	21.75	22.50	1.189	-	-	0.01	0.354	0.421	
	2nd	LTE Band 5 Other Path	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	20525	836.5	22.31	23.50	1.315	-	-	0.02	0.452	0.594	
	1st	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.65	24.00	1.084	-	-	0.11	0.130	0.141	0.22
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 0	DSI 2	166300	831.5	23.56	24.00	1.107	-	-	0.02	0.121	0.134	
04	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.90	23.20	1.349	-	-	-0.01	0.656	**0.885**	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.78	23.20	1.387	-	-	0.03	0.612	0.849	
	2nd	FR1 n26	20M	QPSK	100	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.86	23.00	1.300	-	-	0.18	0.610	0.793	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.90	23.20	1.349	-	-	0.16	0.545	0.735	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.78	23.20	1.387	-	-	-0.1	0.548	0.760	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.90	23.20	1.349	-	-	0.18	0.357	0.482	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	166300	831.5	21.78	23.20	1.387	-	-	-0.1	0.352	0.488	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.90	23.20	1.349	-	-	-0.15	0.350	0.472	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	166300	831.5	21.78	23.20	1.387	-	-	0.19	0.339	0.470	
	2nd	FR1 n5 Other Path	20M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	167300	836.5	21.75	23.20	1.396	-	-	0.18	0.475	0.663	
1900MHz																						
	1st	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Right Cheek	0mm	Ant 1	DSI 2	661	1880	29.14	30.50	1.368	-	-	-0.03	0.047	0.064	1.07
05	2nd	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Right Cheek	0mm	Ant 1	DSI 2	661	1880	28.93	30.50	1.435	-	-	0.07	0.035	**0.050**	
	1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	9400	1880	22.81	24.00	1.315	-	-	0.1	0.118	0.155	1.65
06	2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	DSI 2	9400	1880	22.79	24.00	1.321	-	-	0.02	0.080	**0.106**	
	1st	LTE Band 25	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	26340	1880	22.98	24.00	1.265	-	-	0.13	0.099	0.125	0.59
	2nd	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	18900	1880	22.61	24.00	1.377	-	-	0.09	0.079	0.109	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	18900	1880	18.65	19.60	1.245	-	-	-0.01	0.664	0.826	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	18700	1860	18.39	19.60	1.321	-	-	-0.09	0.637	0.842	
07	2nd	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	19100	1900	18.44	19.60	1.306	-	-	-0.04	0.682	**0.891**	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	18900	1880	18.45	19.60	1.303	-	-	0.05	0.483	0.629	
	2nd	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 2	18900	1880	18.52	19.60	1.282	-	-	0.17	0.371	0.476	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	18900	1880	18.65	19.60	1.245	-	-	0.06	0.522	0.650	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	18900	1880	18.45	19.60	1.303	-	-	-0.15	0.391	0.510	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	18900	1880	18.65	19.60	1.245	-	-	0.04	0.426	0.530	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	18900	1880	18.45	19.60	1.303	-	-	-0.11	0.229	0.298	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	18900	1880	18.65	19.60	1.245	-	-	-0.15	0.429	0.534	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	18900	1880	18.45	19.60	1.303	-	-	-0.19	0.249	0.324	
2600MHz																						
	1st	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	23.03	24.00	1.250	-	-	-0.17	0.211	0.264	0.29

	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	23.01	24.00	1.256	-	-	0.07	0.197	0.247	
	2nd	LTE Band 7 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	21100	2535	22.96	24.00	1.271	-	-	0.16	0.081	0.103	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	21100	2535	16.56	17.60	1.271	-	-	0.16	0.647	0.822	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	20850	2510	16.46	17.60	1.300	-	-	0.05	0.578	0.751	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	21350	2560	16.35	17.60	1.334	-	-	0.05	0.546	0.728	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	21100	2535	16.39	17.60	1.321	-	-	-0.03	0.420	0.555	
	2nd	LTE Band 7	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 4	DSI 2	21100	2535	16.44	17.60	1.306	-	-	0.07	0.412	0.538	
08	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	16.56	17.60	1.271	-	-	0.04	0.693	**0.881**	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	20850	2510	16.46	17.60	1.300	-	-	0.13	0.630	0.819	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	21350	2560	16.35	17.60	1.334	-	-	-0.18	0.595	0.793	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	16.39	17.60	1.321	-	-	0.02	0.564	0.745	
	2nd	LTE Band 7	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 2	21100	2535	16.44	17.60	1.306	-	-	0.02	0.653	0.853	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	21100	2535	16.56	17.60	1.271	-	-	0	0.360	0.457	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	21100	2535	16.39	17.60	1.321	-	-	-0.06	0.251	0.332	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	21100	2535	16.56	17.60	1.271	-	-	-0.1	0.453	0.576	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	21100	2535	16.39	17.60	1.321	-	-	-0.04	0.314	0.415	
	2nd	LTE Band 7 Other PA	20M	QPSK	1	0		Right Tilted	0mm	Ant 4	DSI 2	21100	2535	16.34	17.60	1.337	-	-	0.02	0.582	0.778	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	23.13	24.00	1.222	62.9	1.006	-0.18	0.123	0.151	
	2nd	LTE Band 41C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620+ 40818	2593+ 2612.8	23.05	24.00	1.245	62.9	1.006	0.01	0.102	0.128	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	22.01	23.00	1.256	62.9	1.006	0.03	0.090	0.114	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	23.13	24.00	1.222	62.9	1.006	-0.15	0.055	0.068	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 1	DSI 2	40620	2593	22.01	23.00	1.256	62.9	1.006	-0.15	0.000	0.000	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	23.13	24.00	1.222	62.9	1.006	0.11	0.072	0.088	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 1	DSI 2	40620	2593	22.01	23.00	1.256	62.9	1.006	-0.08	0.048	0.061	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	23.13	24.00	1.222	62.9	1.006	-0.17	0.053	0.065	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 1	DSI 2	40620	2593	22.01	23.00	1.256	62.9	1.006	-0.08	0.000	0.000	
	2nd	LTE Band 41 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	22.79	24.00	1.321	62.9	1.006	-0.18	0.106	0.141	
	2nd	LTE Band 41 PC2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	26.28	27.00	1.180	42.9	1.009	0.03	0.157	0.187	
	2nd	LTE Band 41 PC2 Other Path	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	DSI 2	40620	2593	25.81	27.00	1.315	42.9	1.009	-0.08	0.081	0.107	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 4	DSI 2	40620	2593	18.54	19.80	1.337	62.9	1.006	-0.1	0.430	0.578	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 4	DSI 2	40620	2593	18.48	19.80	1.355	62.9	1.006	-0.15	0.339	0.462	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	40620	2593	18.54	19.80	1.337	62.9	1.006	-0.15	0.621	0.835	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	39750	2506	18.44	19.80	1.368	62.9	1.006	0.11	0.625	0.860	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	40185	2549.5	18.44	19.80	1.368	62.9	1.006	-0.08	0.580	0.798	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	41055	2636.5	18.46	19.80	1.361	62.9	1.006	-0.17	0.576	0.789	
09	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	41490	2680	18.42	19.80	1.374	62.9	1.006	-0.04	0.663	**0.916**	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 4	DSI 2	40620	2593	18.48	19.80	1.355	62.9	1.006	-0.04	0.436	0.594	
	2nd	LTE Band 41	20M	QPSK	100	0	-	Right Tilted	0mm	Ant 4	DSI 2	40620	2593	18.46	19.80	1.361	62.9	1.006	-0.08	0.490	0.671	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 4	DSI 2	40620	2593	18.54	19.80	1.337	62.9	1.006	-0.13	0.318	0.428	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 4	DSI 2	40620	2593	18.48	19.80	1.355	62.9	1.006	0.08	0.210	0.286	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 4	DSI 2	40620	2593	18.54	19.80	1.337	62.9	1.006	0.05	0.417	0.561	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 4	DSI 2	40620	2593	18.48	19.80	1.355	62.9	1.006	-0.02	0.272	0.371	
	2nd	LTE Band 41 PC2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 4	DSI 2	41490	2680	20.23	21.40	1.309	42.9	1.009	-0.01	0.669	0.884	
	1st	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	23.25	24.00	1.189	-	-	0.16	0.175	0.208	0.21
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 1	DSI 2	507000	2535	22.94	24.00	1.276	-	-	0.02	0.155	0.198	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	507000	2535	18.06	19.10	1.271	-	-	0.08	0.641	0.814	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	507000	2535	17.95	19.10	1.303	-	-	0.01	0.618	0.805	
	2nd	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Cheek	0mm	Ant 4	DSI 2	507000	2535	17.82	18.10	1.067	-	-	0.03	0.631	0.673	
10	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	507000	2535	18.06	19.10	1.271	-	-	0.04	0.703	**0.893**	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	507000	2535	17.95	19.10	1.303	-	-	-0.08	0.663	0.864	
	2nd	FR1 n7	40M	QPSK	216	0	DFT-SCS-15KHz	Right Tilted	0mm	Ant 4	DSI 2	507000	2535	17.82	18.10	1.067	-	-	0.1	0.690	0.736	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	507000	2535	18.06	19.10	1.271	-	-	-0.18	0.330	0.419	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Cheek	0mm	Ant 4	DSI 2	507000	2535	17.95	19.10	1.303	-	-	0.1	0.353	0.460	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	507000	2535	18.06	19.10	1.271	-	-	0.08	0.392	0.498	

	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Tilted	0mm	Ant 4	DSI 2	507000	2535	17.95	19.10	1.303	-	-	-0.17	0.425	0.554	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.86	24.00	1.300	-	-	-0.08	0.143	0.186	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.84	24.00	1.306	-	-	0.14	0.120	0.157	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.86	24.00	1.300	-	-	0.11	0.040	0.052	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.84	24.00	1.306	-	-	-0.05	0.036	0.047	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.86	24.00	1.300	-	-	0.18	0.070	0.091	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.84	24.00	1.306	-	-	0.14	0.066	0.086	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.86	24.00	1.300	-	-	-0.17	0.051	0.066	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 1	DSI 2	518598	2592.99	22.84	24.00	1.306	-	-	0.17	0.050	0.065	
	2nd	FR1 n41 Other Path	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 1	DSI 2	518598	2592.99	22.59	24.00	1.384	-	-	0.02	0.056	0.077	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	518598	2592.99	17.63	18.90	1.340	-	-	-0.05	0.583	0.781	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 4	DSI 2	518598	2592.99	17.62	18.90	1.343	-	-	0.01	0.468	0.628	
11	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	17.63	18.90	1.340	-	-	0.01	0.667	**0.894**	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	17.62	18.90	1.343	-	-	0.04	0.549	0.737	
	2nd	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Right Tilted	0mm	Ant 4	DSI 2	518598	2592.99	17.50	18.90	1.380	-	-	-0.01	0.476	0.657	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	518598	2592.99	17.63	18.90	1.340	-	-	-0.08	0.311	0.417	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 4	DSI 2	518598	2592.99	17.62	18.90	1.343	-	-	0.05	0.267	0.359	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	518598	2592.99	17.63	18.90	1.340	-	-	-0.09	0.403	0.540	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 4	DSI 2	518598	2592.99	17.62	18.90	1.343	-	-	-0.08	0.353	0.474	
3500MHz																						
	1st	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	42590	3500	17.37	18.60	1.327	62.9	1.006	0.01	0.668	0.892	0.78
12	2nd	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	DSI 2	42590	3500	17.35	18.60	1.334	62.9	1.006	-0.12	0.555	**0.745**	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	656000	3840	18.31	19.30	1.256	-	-	-0.01	0.447	0.561	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 5	DSI 2	656000	3840	18.27	19.30	1.268	-	-	-0.08	0.410	0.520	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	656000	3840	18.31	19.30	1.256	-	-	0.06	0.595	0.747	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 5	DSI 2	656000	3840	18.27	19.30	1.268	-	-	-0.09	0.548	0.695	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	18.31	19.30	1.256	-	-	0.13	0.569	0.715	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 5	DSI 2	656000	3840	18.27	19.30	1.268	-	-	0.12	0.499	0.633	
13	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	18.31	19.30	1.256	-	-	0.06	0.706	**0.887**	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	18.27	19.30	1.268	-	-	0.18	0.627	0.795	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	270	0	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	18.25	19.30	1.274	-	-	0.06	0.606	0.772	
	2nd	FR1 n77 Part 27O PC2 Other Path	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 5	DSI 2	656000	3840	17.88	19.30	1.387	-	-	0.03	0.604	0.838	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	656000	3840	23.41	24.00	1.146	-	-	0.01	0.091	0.104	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 3	DSI 2	656000	3840	23.27	24.00	1.183	-	-	0.12	0.088	0.104	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	656000	3840	23.41	24.00	1.146	-	-	0.08	0.088	0.101	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 3	DSI 2	656000	3840	23.27	24.00	1.183	-	-	-0.17	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	656000	3840	23.41	24.00	1.146	-	-	-0.03	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 3	DSI 2	656000	3840	23.27	24.00	1.183	-	-	0.14	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	656000	3840	23.41	24.00	1.146	-	-	0.11	0.080	0.092	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 3	DSI 2	656000	3840	23.27	24.00	1.183	-	-	-0.05	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	656000	3840	18.45	19.20	1.189	-	-	0.18	0.243	0.289	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 7	DSI 2	656000	3840	18.40	19.20	1.202	-	-	0.14	0.229	0.275	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	656000	3840	18.45	19.20	1.189	-	-	-0.17	0.222	0.264	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 7	DSI 2	656000	3840	18.40	19.20	1.202	-	-	0.17	0.229	0.275	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	656000	3840	18.45	19.20	1.189	-	-	-0.02	0.740	0.879	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	656000	3840	18.40	19.20	1.202	-	-	-0.05	0.692	0.832	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	270	0	DFT-SCS-30KHz	Left Cheek	0mm	Ant 7	DSI 2	656000	3840	18.39	19.20	1.205	-	-	0.01	0.555	0.669	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	656000	3840	18.45	19.20	1.189	-	-	0.1	0.519	0.617	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 7	DSI 2	656000	3840	18.40	19.20	1.202	-	-	-0.17	0.535	0.643	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 2	656000	3840	22.75	24.00	1.334	-	-	0.08	0.102	0.136	

	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Cheek	0mm	Ant 9	DSI 2	656000	3840	22.69	24.00	1.352	-	-	0.01	0.096	0.130	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 2	656000	3840	22.75	24.00	1.334	-	-	0.03	0.098	0.131	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Tilted	0mm	Ant 9	DSI 2	656000	3840	22.69	24.00	1.352	-	-	-0.08	0.080	0.108	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 2	656000	3840	22.75	24.00	1.334	-	-	-0.08	0.070	0.093	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Cheek	0mm	Ant 9	DSI 2	656000	3840	22.69	24.00	1.352	-	-	0.1	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 2	656000	3840	22.75	24.00	1.334	-	-	-0.18	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Tilted	0mm	Ant 9	DSI 2	656000	3840	22.69	24.00	1.352	-	-	0.1	0.066	0.089	

Plot No.	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)	Deviation d_{dB}(dB)
2450MHz																		
	1st	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	6	2437	17.17	19.00	1.524	87.19	1.147	-0.01	0.803	1.404	0.64
14	2nd	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6+8(6)	Receiver on	6	2437	17.13	19.00	1.538	87.19	1.147	-0.08	0.687	**1.212**	
	1st	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+8(6)	Receiver on	11	2462	17.02	19.00	1.578	87.19	1.147	-0.18	0.620	1.122	0.13
	2nd	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6+8(6)	Receiver on	11	2462	17.01	19.00	1.581	87.19	1.147	0.05	0.601	1.090	
	1st	Bluetooth	1Mbps	Left Cheek	0mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	-0.04	0.184	0.253	0.25
15	2nd	Bluetooth	1Mbps	Left Cheek	0mm	Ant 6	Full power	78	2480	13.90	15.00	1.288	76.75	1.085	0.06	0.171	**0.239**	
	1st	Bluetooth	1Mbps	Left Cheek	0mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.04	0.099	0.149	0.40
	2nd	Bluetooth	1Mbps	Left Cheek	0mm	Ant 8	Full power	0	2402	13.51	15.00	1.409	76.94	1.083	-0.01	0.089	0.136	
5000MHz																		
	1st	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+8(8)	Receiver on	54	5270	16.17	18.00	1.522	86.11	1.161	-0.07	0.592	1.046	0.12
16	2nd	WLAN5.3GHz	802.11n-HT40 MCS0	Left Cheek	0mm	Ant 5+8(8)	Receiver on	54	5270	16.09	18.00	1.552	86.11	1.161	-0.05	0.565	**1.018**	
	1st	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+8(8)	Receiver on	138	5690	12.33	14.00	1.467	85.49	1.170	-0.01	0.670	1.150	0.19
17	2nd	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+8(8)	Receiver on	138	5690	12.25	14.00	1.496	85.49	1.170	-0.16	0.629	**1.101**	
	1st	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+8(8)	Receiver on	155	5775	14.89	16.50	1.449	85.49	1.170	-0.17	0.668	1.132	0.05
18	2nd	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+8(8)	Receiver on	155	5775	14.81	16.50	1.476	85.49	1.170	-0.06	0.648	**1.119**	

Plot No.	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)	Measured APD (W/m^2)	Deviation d_{dB}(dB)
	1st	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Full power	143	6665	13.49	14.50	1.262	85.71	1.167	-0.01	0.679	1.000	4.35	0.05
19	2nd	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+8(5)	Full power	143	6665	13.47	14.50	1.268	85.71	1.167	0.01	0.668	**0.988**	4.24	

18.2 Hotspot SAR

Plot No.	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)	Deviation d_{dB}(dB)
835MHz																						
	1st	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 7	189	836.4	26.38	27.50	1.294	-	-	-0.08	0.824	1.066	0.03
20	2nd	GSM850	-	-	-	-	GPRS (4 Tx slots)	Back	5mm	Ant 0	DSI 7	189	836.4	26.27	27.50	1.327	-	-	-0.03	0.798	**1.059**	
	1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4233	846.6	22.96	24.00	1.271	-	-	0.09	1.020	1.296	0.06
21	2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	5mm	Ant 0	DSI 7	4233	846.6	22.77	24.00	1.327	-	-	-0.09	0.963	**1.278**	
	1st	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	4182	836.4	23.02	24.00	1.253	-	-	0.17	0.548	0.687	0.30
	2nd	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	5mm	Ant 0	DSI 7	4182	836.4	22.93	24.00	1.279	-	-	0.02	0.501	0.641	
	1st	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	23.06	24.00	1.242	-	-	-0.06	0.971	1.206	0.33
22	2nd	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	26865	831.5	23.05	24.00	1.245	-	-	-0.16	0.898	**1.118**	
	2nd	LTE Band 5 Other Path	10M	QPSK	1	0	-	Back	5mm	Ant 0	DSI 7	20525	836.5	22.79	24.00	1.321	-	-	0.03	0.645	0.852	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	26865	831.5	20.11	21.20	1.285	-	-	0.08	0.244	0.314	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Front	5mm	Ant 4	DSI 7	26865	831.5	20.09	21.20	1.291	-	-	0.01	0.135	0.174	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	26865	831.5	20.11	21.20	1.285	-	-	-0.1	0.479	0.616	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Back	5mm	Ant 4	DSI 7	26865	831.5	20.09	21.20	1.291	-	-	-0.08	0.265	0.342	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	26865	831.5	20.11	21.20	1.285	-	-	0.1	0.223	0.287	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Left Side	5mm	Ant 4	DSI 7	26865	831.5	20.09	21.20	1.291	-	-	-0.18	0.132	0.170	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	26865	831.5	20.11	21.20	1.285	-	-	0.1	0.077	0.099	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Right Side	5mm	Ant 4	DSI 7	26865	831.5	20.09	21.20	1.291	-	-	0.12	0.042	0.054	
	2nd	LTE Band 26	15M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	26865	831.5	20.11	21.20	1.285	-	-	0.08	0.454	0.584	
	2nd	LTE Band 26	15M	QPSK	36	0	-	Top Side	5mm	Ant 4	DSI 7	26865	831.5	20.09	21.20	1.291	-	-	-0.17	0.266	0.343	
	2nd	LTE Band 5 Other Path	10M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	20525	836.5	19.95	21.20	1.334	-	-	-0.1	0.442	0.589	
	1st	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	23.52	24.00	1.117	-	-	-0.19	0.790	0.882	1.12
23	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 0	DSI 7	166300	831.5	23.50	24.00	1.122	-	-	0.08	0.608	**0.682**	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	166300	831.5	20.19	21.40	1.321	-	-	0.18	0.220	0.291	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	166300	831.5	20.13	21.40	1.340	-	-	0.14	0.226	0.303	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	166300	831.5	20.19	21.40	1.321	-	-	-0.17	0.445	0.588	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	166300	831.5	20.13	21.40	1.340	-	-	0.05	0.461	0.618	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	166300	831.5	20.19	21.40	1.321	-	-	0.01	0.189	0.250	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	166300	831.5	20.13	21.40	1.340	-	-	0.1	0.199	0.267	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	166300	831.5	20.19	21.40	1.321	-	-	-0.17	0.070	0.092	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	166300	831.5	20.13	21.40	1.340	-	-	0.04	0.070	0.094	
	2nd	FR1 n26	20M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	166300	831.5	20.19	21.40	1.321	-	-	-0.01	0.389	0.514	
	2nd	FR1 n26	20M	QPSK	50	28	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	166300	831.5	20.13	21.40	1.340	-	-	-0.08	0.356	0.477	
	2nd	FR1 n5 Other Path	20M	QPSK	50	28	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	167300	836.5	19.94	21.40	1.400	-	-	0.02	0.406	0.568	
1900MHz																						
	1st	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	DSI 7	810	1909.8	29.05	30.50	1.396	-	-	-0.16	0.748	1.044	1.03
24	2nd	GSM1900	-	-	-	-	GPRS (1 Tx slot)	Back	5mm	Ant 1	DSI 7	810	1909.8	28.79	30.50	1.483	-	-	-0.04	0.555	**0.823**	
	1st	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	9538	1907.6	20.69	21.60	1.233	-	-	0.08	0.975	1.202	0.04
25	2nd	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	5mm	Ant 1	DSI 7	9538	1907.6	20.59	21.60	1.262	-	-	0.05	0.945	**1.192**	
	1st	LTE Band 25	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	26340	1880	20.26	21.50	1.330	-	-	0.08	0.955	1.271	0.71
26	2nd	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	18900	1880	20.21	21.50	1.346	-	-	-0.09	0.802	**1.079**	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	18900	1880	16.61	17.80	1.315	-	-	0.06	0.204	0.268	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	18900	1880	16.58	17.80	1.324	-	-	0.13	0.114	0.151	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	18900	1880	16.61	17.80	1.315	-	-	0.03	0.438	0.576	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	18900	1880	16.58	17.80	1.324	-	-	-0.1	0.278	0.368	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	18900	1880	16.61	17.80	1.315	-	-	0.01	0.187	0.246	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	18900	1880	16.58	17.80	1.324	-	-	0.07	0.109	0.144	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	18900	1880	16.61	17.80	1.315	-	-	0.03	0.048	0.063	
	2nd	LTE Band 2	20M	QPSK	50	0	-	Right Side	5mm	Ant 4	DSI 7	18900	1880	16.58	17.80	1.324	-	-	-0.15	0.025	0.033	
	2nd	LTE Band 2	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	18900	1880	16.61	17.80	1.315	-	-	0.01	0.478	0.629	

	2nd	LTE Band 2	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	18900	1880	16.58	17.80	1.324	-	-	-0.17	0.255	0.338	
											2600MHz											
	1st	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	21350	2560	21.06	21.80	1.186	-	-	0.03	1.070	1.269	
27	2nd	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	21350	2560	20.99	21.80	1.205	-	-	0.06	0.949	**1.144**	0.45
	2nd	LTE Band 7 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	21350	2560	20.91	21.80	1.227	-	-	0.02	0.329	0.404	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	21100	2535	13.60	14.70	1.288	-	-	-0.11	0.161	0.207	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	21100	2535	13.56	14.70	1.300	-	-	-0.16	0.100	0.130	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	13.60	14.70	1.288	-	-	-0.03	0.485	0.625	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	13.56	14.70	1.300	-	-	0.16	0.291	0.378	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	21100	2535	13.60	14.70	1.288	-	-	-0.15	0.075	0.097	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	21100	2535	13.56	14.70	1.300	-	-	0.16	0.048	0.062	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	21100	2535	13.60	14.70	1.288	-	-	-0.18	0.023	0.030	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Right Side	5mm	Ant 4	DSI 7	21100	2535	13.56	14.70	1.300	-	-	0.02	0.016	0.021	
	2nd	LTE Band 7	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	21100	2535	13.60	14.70	1.288	-	-	0.16	0.379	0.488	
	2nd	LTE Band 7	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	21100	2535	13.56	14.70	1.300	-	-	0	0.215	0.280	
	2nd	LTE Band 7 Other PA	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	21100	2535	13.41	14.70	1.346	-	-	0.01	0.413	0.556	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	23.13	24.00	1.222	62.9	1.006	0.12	0.673	0.827	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	39750	2506	23.03	24.00	1.250	62.9	1.006	0.09	0.537	0.675	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	40185	2549.5	23.05	24.00	1.245	62.9	1.006	-0.02	0.542	0.679	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	41055	2636.5	22.99	24.00	1.262	62.9	1.006	-0.16	0.543	0.689	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 1	DSI 7	41490	2680	23.07	24.00	1.239	62.9	1.006	-0.03	0.550	0.685	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	22.01	23.00	1.256	62.9	1.006	-0.06	0.467	0.590	
	2nd	LTE Band 41	20M	QPSK	100	0	-	Front	5mm	Ant 1	DSI 7	40620	2593	21.92	23.00	1.282	62.9	1.006	0.04	0.422	0.544	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	23.13	24.00	1.222	62.9	1.006	0.17	0.713	0.876	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	39750	2506	23.03	24.00	1.250	62.9	1.006	-0.1	0.848	1.067	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	40185	2549.5	23.05	24.00	1.245	62.9	1.006	0.04	0.903	1.131	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41055	2636.5	22.99	24.00	1.262	62.9	1.006	-0.15	0.755	0.958	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	23.07	24.00	1.239	62.9	1.006	0.18	0.710	0.885	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	22.01	23.00	1.256	62.9	1.006	0.05	0.516	0.652	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	39750	2506	21.75	23.00	1.334	62.9	1.006	0.04	0.485	0.651	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	40185	2549.5	21.88	23.00	1.294	62.9	1.006	0.15	0.726	0.945	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	41055	2636.5	21.75	23.00	1.334	62.9	1.006	0.03	0.429	0.576	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 1	DSI 7	41490	2680	21.89	23.00	1.291	62.9	1.006	-0.1	0.413	0.536	
	2nd	LTE Band 41	20M	QPSK	100	0	-	Back	5mm	Ant 1	DSI 7	40620	2593	21.92	23.00	1.282	62.9	1.006	0.14	0.467	0.602	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 1	DSI 7	40620	2593	23.13	24.00	1.222	62.9	1.006	0.16	0.046	0.057	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 1	DSI 7	40620	2593	22.01	23.00	1.256	62.9	1.006	0.01	0.034	0.043	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 1	DSI 7	40620	2593	23.13	24.00	1.222	62.9	1.006	-0.16	0.139	0.171	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 1	DSI 7	40620	2593	22.01	23.00	1.256	62.9	1.006	0.1	0.097	0.123	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	23.13	24.00	1.222	62.9	1.006	-0.04	0.989	1.216	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	39750	2506	23.03	24.00	1.250	62.9	1.006	-0.01	0.896	1.127	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	23.05	24.00	1.245	62.9	1.006	0.01	1.020	1.277	
	2nd	LTE Band 41C	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185+ 40383	2549.5+ 2569.3	24.46	25.70	1.330	62.9	1.006	0.02	0.866	1.159	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41055	2636.5	22.99	24.00	1.262	62.9	1.006	-0.11	0.989	1.255	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	23.07	24.00	1.239	62.9	1.006	-0.06	0.996	1.241	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	22.01	23.00	1.256	62.9	1.006	-0.15	0.569	0.719	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	39750	2506	21.75	23.00	1.334	62.9	1.006	0.18	0.698	0.936	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	21.88	23.00	1.294	62.9	1.006	0.02	0.797	1.038	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	41055	2636.5	21.75	23.00	1.334	62.9	1.006	0.04	0.740	0.993	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	5mm	Ant 1	DSI 7	41490	2680	21.89	23.00	1.291	62.9	1.006	0.15	0.754	0.979	
	2nd	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	5mm	Ant 1	DSI 7	40620	2593	21.92	23.00	1.282	62.9	1.006	-0.02	0.582	0.751	
	2nd	LTE Band 41 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	22.71	24.00	1.346	62.9	1.006	0.01	0.673	0.911	
28	2nd	LTE Band 41 PC2	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	24.50	25.70	1.318	42.9	1.009	0.01	1.050	**1.397**	
	2nd	LTE Band 41 PC2 Other Path	20M	QPSK	1	0	-	Bottom Side	5mm	Ant 1	DSI 7	40185	2549.5	24.32	25.70	1.374	42.9	1.009	0.02	0.821	1.138	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Front	5mm	Ant 4	DSI 7	40620	2593	16.38	17.50	1.294	62.9	1.006	-0.11	0.121	0.158	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Front	5mm	Ant 4	DSI 7	40620	2593	16.15	17.50	1.365	62.9	1.006	-0.06	0.087	0.119	

	2nd	LTE Band 41	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	40620	2593	16.38	17.50	1.294	62.9	1.006	-0.15	0.442	0.575	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Back	5mm	Ant 4	DSI 7	40620	2593	16.15	17.50	1.365	62.9	1.006	-0.01	0.276	0.379	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Left Side	5mm	Ant 4	DSI 7	40620	2593	16.38	17.50	1.294	62.9	1.006	0.02	0.062	0.081	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Left Side	5mm	Ant 4	DSI 7	40620	2593	16.15	17.50	1.365	62.9	1.006	0.16	0.038	0.052	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Right Side	5mm	Ant 4	DSI 7	40620	2593	16.38	17.50	1.294	62.9	1.006	0.01	0.024	0.031	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Right Side	5mm	Ant 4	DSI 7	40620	2593	16.15	17.50	1.365	62.9	1.006	-0.04	0.017	0.023	
	2nd	LTE Band 41	20M	QPSK	1	0	-	Top Side	5mm	Ant 4	DSI 7	40620	2593	16.38	17.50	1.294	62.9	1.006	0.13	0.320	0.417	
	2nd	LTE Band 41	20M	QPSK	50	0	-	Top Side	5mm	Ant 4	DSI 7	40620	2593	16.15	17.50	1.365	62.9	1.006	-0.06	0.220	0.302	
	2nd	LTE Band 41 PC2	20M	QPSK	1	0	-	Back	5mm	Ant 4	DSI 7	40620	2593	18.11	19.10	1.256	42.9	1.009	-0.04	0.462	0.586	
	1st	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	21.48	22.50	1.265	-	-	-0.01	0.979	1.238	0.56
29	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Bottom Side	5mm	Ant 1	DSI 7	507000	2535	21.45	22.50	1.274	-	-	0.05	0.855	**1.089**	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	507000	2535	14.29	15.70	1.384	-	-	0.11	0.151	0.209	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Front	5mm	Ant 4	DSI 7	507000	2535	14.25	15.70	1.396	-	-	-0.13	0.140	0.195	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	507000	2535	14.29	15.70	1.384	-	-	-0.11	0.383	0.530	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Back	5mm	Ant 4	DSI 7	507000	2535	14.25	15.70	1.396	-	-	0.04	0.447	0.624	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	507000	2535	14.29	15.70	1.384	-	-	-0.17	0.067	0.093	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Left Side	5mm	Ant 4	DSI 7	507000	2535	14.25	15.70	1.396	-	-	0.11	0.070	0.098	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	507000	2535	14.29	15.70	1.384	-	-	-0.05	0.018	0.025	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Right Side	5mm	Ant 4	DSI 7	507000	2535	14.25	15.70	1.396	-	-	-0.01	0.018	0.025	
	2nd	FR1 n7	40M	QPSK	1	1	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	507000	2535	14.29	15.70	1.384	-	-	-0.14	0.310	0.429	
	2nd	FR1 n7	40M	QPSK	108	54	DFT-SCS-15KHz	Top Side	5mm	Ant 4	DSI 7	507000	2535	14.25	15.70	1.396	-	-	-0.15	0.321	0.448	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	518598	2592.99	20.19	21.70	1.416	-	-	0.15	0.625	0.885	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	0.09	0.530	0.756	
	2nd	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Front	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	-0.16	0.462	0.659	
30	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	20.19	21.70	1.416	-	-	-0.01	0.908	**1.286**	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	0.08	0.696	0.992	
	2nd	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	-0.18	0.609	0.868	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	518598	2592.99	20.19	21.70	1.416	-	-	-0.03	0.080	0.113	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	-0.04	0.044	0.063	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 1	DSI 7	518598	2592.99	20.19	21.70	1.416	-	-	-0.09	0.201	0.285	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	0.18	0.147	0.210	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	518598	2592.99	20.19	21.70	1.416	-	-	0.11	0.750	1.062	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	0.07	0.843	1.202	
	2nd	FR1 n41	100M	QPSK	270	0	DFT-SCS-30KHz	Bottom Side	5mm	Ant 1	DSI 7	518598	2592.99	20.16	21.70	1.426	-	-	-0.03	0.636	0.907	
	2nd	FR1 n41 Other Path	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 1	DSI 7	518598	2592.99	20.06	21.70	1.459	-	-	-0.01	0.845	1.233	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 7	518598	2592.99	14.72	15.80	1.282	-	-	-0.12	0.167	0.214	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 4	DSI 7	518598	2592.99	14.64	15.80	1.306	-	-	-0.16	0.151	0.197	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 7	518598	2592.99	14.72	15.80	1.282	-	-	0.01	0.482	0.618	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 4	DSI 7	518598	2592.99	14.64	15.80	1.306	-	-	0.02	0.436	0.569	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 7	518598	2592.99	14.72	15.80	1.282	-	-	0.18	0.080	0.103	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 4	DSI 7	518598	2592.99	14.64	15.80	1.306	-	-	-0.11	0.059	0.077	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 4	DSI 7	518598	2592.99	14.72	15.80	1.282	-	-	-0.04	0.026	0.033	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 4	DSI 7	518598	2592.99	14.64	15.80	1.306	-	-	-0.08	0.027	0.035	
	2nd	FR1 n41	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 7	518598	2592.99	14.72	15.80	1.282	-	-	0	0.357	0.458	
	2nd	FR1 n41	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 4	DSI 7	518598	2592.99	14.64	15.80	1.306	-	-	-0.14	0.362	0.473	
3500MHz																						
	1st	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	42990	3540	15.84	16.70	1.219	62.9	1.006	0.11	0.527	0.646	0.43
31	2nd	LTE Band 42 Part 27Q	20M	QPSK	1	0	-	Back	5mm	Ant 5	DSI 7	42990	3540	15.81	16.70	1.227	62.9	1.006	-0.09	0.474	**0.585**	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	656000	3840	15.36	16.70	1.361	-	-	0	0.133	0.181	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 5	DSI 7	656000	3840	15.33	16.70	1.371	-	-	-0.13	0.122	0.167	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	656000	3840	15.36	16.70	1.361	-	-	-0.07	0.323	0.440	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 5	DSI 7	656000	3840	15.33	16.70	1.371	-	-	0.11	0.372	0.510	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	656000	3840	15.36	16.70	1.361	-	-	0.01	0.015	0.020	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 5	DSI 7	656000	3840	15.33	16.70	1.371	-	-	0.1	0.016	0.022	

	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	656000	3840	15.36	16.70	1.361	-	-	0.11	0.057	0.078	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 5	DSI 7	656000	3840	15.33	16.70	1.371	-	-	-0.07	0.059	0.081	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	656000	3840	15.36	16.70	1.361	-	-	0.18	0.390	0.531	
	2nd	FR1 n77 Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	656000	3840	15.33	16.70	1.371	-	-	0.02	0.456	0.625	
	2nd	FR1 n77 Part 27O PC2 Other Path	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 5	DSI 7	656000	3840	15.07	16.70	1.455	-	-	0.02	0.412	0.600	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 3	DSI 7	656000	3840	13.49	14.60	1.291	-	-	0.03	0.071	0.092	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 3	DSI 7	656000	3840	13.46	14.60	1.300	-	-	-0.06	0.088	0.114	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 3	DSI 7	656000	3840	13.49	14.60	1.291	-	-	-0.03	0.481	0.621	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 3	DSI 7	656000	3840	13.46	14.60	1.300	-	-	0.03	0.358	0.465	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 3	DSI 7	656000	3840	13.49	14.60	1.291	-	-	0.02	0.059	0.076	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 3	DSI 7	656000	3840	13.46	14.60	1.300	-	-	-0.11	0.047	0.061	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 3	DSI 7	656000	3840	13.49	14.60	1.291	-	-	0.18	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 3	DSI 7	656000	3840	13.46	14.60	1.300	-	-	0.16	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 3	DSI 7	656000	3840	13.49	14.60	1.291	-	-	0.19	0.010	0.013	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 3	DSI 7	656000	3840	13.46	14.60	1.300	-	-	0.13	0.015	0.020	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 7	656000	3840	13.96	15.60	1.459	-	-	-0.12	0.156	0.228	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 7	DSI 7	656000	3840	13.92	15.60	1.472	-	-	0.07	0.146	0.215	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 7	656000	3840	13.96	15.60	1.459	-	-	-0.06	0.240	0.350	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 7	DSI 7	656000	3840	13.92	15.60	1.472	-	-	0.07	0.270	0.398	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 7	656000	3840	13.96	15.60	1.459	-	-	-0.15	0.012	0.018	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 7	DSI 7	656000	3840	13.92	15.60	1.472	-	-	-0.08	0.009	0.013	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 7	656000	3840	13.96	15.60	1.459	-	-	0.01	0.423	0.617	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 7	DSI 7	656000	3840	13.92	15.60	1.472	-	-	0.02	0.344	0.506	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Top Side	5mm	Ant 7	DSI 7	656000	3840	13.96	15.60	1.459	-	-	-0.08	0.089	0.130	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Top Side	5mm	Ant 7	DSI 7	656000	3840	13.92	15.60	1.472	-	-	0.12	0.094	0.138	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Front	5mm	Ant 9	DSI 7	656000	3840	20.81	21.90	1.285	-	-	0.06	0.273	0.351	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Front	5mm	Ant 9	DSI 7	656000	3840	20.77	21.90	1.297	-	-	0.01	0.320	0.415	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Back	5mm	Ant 9	DSI 7	656000	3840	20.81	21.90	1.285	-	-	-0.11	0.724	0.931	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Back	5mm	Ant 9	DSI 7	656000	3840	20.77	21.90	1.297	-	-	0.03	0.674	0.874	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	270	0	DFT-SCS-30KHz	Back	5mm	Ant 9	DSI 7	656000	3840	20.72	21.90	1.312	-	-	0.09	0.482	0.632	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Left Side	5mm	Ant 9	DSI 7	656000	3840	20.81	21.90	1.285	-	-	-0.02	0.000	0.000	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Left Side	5mm	Ant 9	DSI 7	656000	3840	20.77	21.90	1.297	-	-	0.15	0.000	0.000	
32	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	656000	3840	20.81	21.90	1.285	-	-	0.08	0.994	**1.278**	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	656000	3840	20.77	21.90	1.297	-	-	0.06	0.901	1.169	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	270	0	DFT-SCS-30KHz	Right Side	5mm	Ant 9	DSI 7	656000	3840	20.72	21.90	1.312	-	-	0.15	0.610	0.800	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	1	1	DFT-SCS-30KHz	Bottom Side	5mm	Ant 9	DSI 7	656000	3840	20.81	21.90	1.285	-	-	-0.08	0.212	0.272	
	2nd	FR1 n77 SRS Part 27O PC2	100M	QPSK	135	69	DFT-SCS-30KHz	Bottom Side	5mm	Ant 9	DSI 7	656000	3840	20.77	21.90	1.297	-	-	-0.05	0.177	0.230	

Plot No.	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)	Deviation d_{dB}(dB)
2450MHz																		
	1st	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	Hotspot on	11	2462	15.01	16.50	1.409	87.19	1.147	-0.07	0.415	0.671	0.03
33	2nd	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6+8(6)	Hotspot on	11	2462	14.98	16.50	1.419	87.19	1.147	0.02	0.409	**0.666**	
	1st	Bluetooth	1Mbps	Back	5mm	Ant 6	Full power	78	2480	13.97	15.00	1.268	76.75	1.085	-0.03	0.208	0.286	0.78
34	2nd	Bluetooth	1Mbps	Back	5mm	Ant 6	Full power	78	2480	13.90	15.00	1.288	76.75	1.085	0.08	0.171	**0.239**	
	1st	Bluetooth	1Mbps	Back	5mm	Ant 8	Full power	0	2402	13.57	15.00	1.390	76.94	1.083	0.06	0.178	0.268	0.53
	2nd	Bluetooth	1Mbps	Back	5mm	Ant 8	Full power	0	2402	13.51	15.00	1.409	76.94	1.083	0.03	0.155	0.237	
5000MHz																		
	1st	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	5mm	Ant 5+8(5)	Hotspot on	46	5230	13.72	15.50	1.507	86.11	1.161	-0.04	0.340	0.595	0.13
35	2nd	WLAN5.2GHz	802.11n-HT40 MCS0	Top Side	5mm	Ant 5+8(5)	Hotspot on	46	5230	13.51	15.50	1.581	86.11	1.161	0.03	0.315	**0.578**	
	1st	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 5+8(8)	Hotspot on	155	5775	9.85	11.50	1.462	85.49	1.170	-0.08	0.375	0.642	0.10
36	2nd	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 5+8(8)	Hotspot on	155	5775	9.75	11.50	1.496	85.49	1.170	0.03	0.358	**0.627**	