

FCC SAR Test Report

APPLICANT : Motorola Mobility LLC
EQUIPMENT : Mobile Cellular Phone
BRAND NAME : Motorola
MODEL NAME : XT2607-1
FCC ID : IHDT56AX4
STANDARD : FCC 47 CFR Part 2 (2.1093)

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

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

Hank Huang



Approved by: Hank Huang

Sporton International Inc. (Shenzhen)

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA5D1519	Rev. 01	Initial issue of report.	Mar. 06, 2026

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Motorola Mobility LLC, Mobile Cellular Phone, XT2607-1**, 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	0.44	1.25	1.25	1.59
		GSM1900	0.37	1.28	1.20	
	WCDMA	WCDMA II	0.54	1.09	1.18	
		WCDMA IV	0.39	1.06	1.13	
		WCDMA V	0.25	0.71	0.71	
	LTE	LTE Band 7	0.84	1.12	1.11	
		LTE Band 12/17	0.58	0.55	0.80	
		LTE Band 13	0.83	0.54	0.79	
		LTE Band 25/2	0.88	1.09	1.16	
		LTE Band 26/5	0.66	0.63	0.60	
		LTE Band 66/4	0.87	1.17	1.17	
		LTE Band 71	0.40	0.61	0.61	
		LTE Band 41/38	0.88	1.09	1.19	
		LTE Band 42	0.84	0.55	0.88	
	5G NR	FR1 n2	0.86	1.15	1.19	
		FR1 n7	0.82	1.02	1.28	
		FR1 n26/n5	0.50	0.57	0.72	
		FR1 n66	0.85	1.08	1.28	
		FR1 n71	0.43	0.57	0.69	
		FR1 n41/n38	0.88	1.17	1.27	
		FR1 n77/n78	0.82	0.59	0.85	
DTS	WLAN	2.4GHz WLAN	1.18	0.57	0.61	1.59
NII		5GHz WLAN	1.19	0.53	1.06	1.59
6XD		6GHz WLAN	1.14		0.22	1.59
DSS	Bluetooth	2.4GHz Bluetooth	0.38	0.25	0.30	1.49

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
Licensed	GSM	GSM850	2.34	3.73
		GSM1900	2.98	
	WCDMA	WCDMA II	2.83	
		WCDMA IV	2.71	
	LTE	LTE Band 7	3.16	
		LTE Band 13	2.12	
		LTE Band 25/2	3.08	
		LTE Band 66/4	2.92	
		LTE Band 41/38	3.00	
		LTE Band 42	2.15	
	5G NR	FR1 n2	2.88	
		FR1 n7	2.95	
		FR1 n26/n5	1.48	
		FR1 n66	2.97	
		FR1 n71	1.24	
		FR1 n41/n38	2.87	
		FR1 n77/ n78	2.32	
DTS	WLAN	2.4GHz WLAN	1.79	3.73
NII		5GHz WLAN	2.82	3.67
6XD		6GHz WLAN	0.42	3.67

Highest Total Exposure Ratio	Ratio ≤ 1.0	
	1g Ratio	10g Ratio
	0.99	0.93

Equipment Class	Frequency Band	Measured APD			Reported PD
		Head (W/m ²)	Body Worn (W/m ²)	Phablet (W/m ²)	psPD (W/m ²)
6XD	6GHz WLAN	4.79	0.88	5.37	7.21
Date of Testing:		2026/1/21 ~ 2026/2/23			

Remark:

- This device supports LTE B2 / B4 / B5 / B17 / B38 and B25 / B66 / B26 / B12 / B41. Since the supported frequency span for LTE B2 / B4 / B5 / B17 / B38 falls completely within the support's frequency span for LTE B25 / B66 / B26 / B12 / B41, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B25 / B66 / B26 / B12 / B41.
- This device supports 5G NR n5 / n38 / n78 and n26 / n41 / n77. Since the supported frequency span for 5G NR n5 / n38 / n78 falls completely within the support's frequency span for n26 / n41 / n77, both 5G NR bands have the same target power, and both 5G NR bands share the same transmission path; therefore, SAR was only assessed for n26 / n41 / n77.

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 Human Exposure to RF Radiation Limits (1.0 mW/cm²=10 W/m²) specified in FCC 47 CFR part 1.1310 and ANSI/IEEE C95.1-1992, and had been tested in accordance with the measurement methods and procedures specified in IEEE 1528-2013 and FCC KDB publications.

2. Administration Data

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

Testing Laboratory			
Test Firm	Sporton International Inc. (Shenzhen)		
Test Site Location	1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055 People's Republic of China TEL: +86-755-86379589 FAX: +86-755-86379595		
Test Site No.	Sporton Site No.	FCC Designation No.	FCC Test Firm Registration No.
	SAR03-SZ, SAR05-SZ	CN1256	421272

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. Guidance Applied

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

- FCC 47 CFR Part 2 (2.1093)
- ANSI/IEEE C95.1-1992
- IEEE 1528-2013
- FCC KDB 865664 D01 SAR Measurement 100 MHz to 6 GHz v01r04
- FCC KDB 865664 D02 SAR Reporting v01r02
- FCC KDB 447498 D01 General RF Exposure Guidance v06
- FCC KDB 648474 D04 SAR Evaluation Considerations for Wireless Handsets v01r03
- FCC KDB 248227 D01 802.11 Wi-Fi SAR v02r02
- FCC KDB 616217 D04 SAR for laptop and tablets v01r02
- FCC KDB 941225 D01 3G SAR Procedures v03r01
- FCC KDB 941225 D05 SAR for LTE Devices v02r05
- FCC KDB 941225 D05A Rel.10 LTE SAR Test Guidance v01r02
- FCC KDB 941225 D06 Hotspot Mode SAR v02r01
- IEC/IEEE 62209-1528:2020
- IEC TR 63170:2018
- IEC 62479:2010
- SPEAG DASY6 Application Note (Interim Procedure for Device Operation at 6GHz-10GHz)

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Cellular Phone
Brand Name	Motorola
Model Name	XT2607-1
FCC ID	IHDT56AX4
IMEI Code	354229400034358/354229400034366, 354229400034416/354229400034424, 354229400035653/354229400035660, 354229400035231/354229400035249 354229400035231/354229400035249
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850 MHz ~ 1910 MHz WCDMA Band II: 1850 MHz ~ 1910 MHz WCDMA Band IV: 1710 MHz ~ 1755 MHz WCDMA Band V: 824 MHz ~ 849 MHz LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 25: 1850 MHz ~ 1910 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 LTE Band 66: 1710 MHz ~ 1780 MHz LTE Band 71: 663 MHz ~ 698 MHz 5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 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 U-NII 5: 5925 MHz ~ 6425 MHz WLAN U-NII 6: 6425 MHz ~ 6525 MHz WLAN U-NII 7: 6525 MHz ~ 6875 MHz WLAN U-NII 8: 6875 MHz ~ 7125 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC: 13.56 MHz WPT: 110 KHz-145 KHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA/HSUPA DC-HSDPA HSPA+ (16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 5G NR: DFT-s-OFDM/CP-OFDM, Pi/2 BPSK/QPSK/16QAM/64QAM/256QAM

	WLAN 2.4GHz 802.11b/g/n HT20/HT40 WLAN 2.4GHz 802.11ac VHT20/VHT40 WLAN 2.4GHz 802.11ax HE20/HE40 WLAN 5GHz 802.11a/n HT20/HT40 WLAN 5GHz 802.11ac VHT20/VHT40/VHT80/VHT160 WLAN 5GHz 802.11ax HE20/HE40/HE80/HE160 WLAN 6GHz 802.11a/ax HE20/HE40/HE80/HE160 Bluetooth BR/EDR/LE NFC: ASK WPT: ASK
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 5G NR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only). 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. This device supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
6. The device implements the power management and proximity sensor /receiver detection/hotspot mode for SAR compliance at different exposure conditions (head, body-worn, hotspot, extremity) and the MediaTek TA-SAR will manage to ensure the power level not exceeding the associated power table. 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.
7. For WLAN when transmit simultaneous with WWAN/BT, the WLAN power reduction will be activated to head exposure condition.
8. This device supports HPUE mode for LTE Band41 with higher power. 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 power class 3 was chosen to perform full SAR testing and power class 2 verified the worst case of power class 3 SAR.
9. For 5G NR bands, using FTM to perform SAR with default 100% transmission.
10. The 2.4GHz/5GHz/6GHz WLAN can transmit in SISO/MIMO mode, and WLAN 2.4GHz 11b supports SISO mode only.
11. This device supports HPUE mode for 5G NR n41/n77/n78 with higher power, so HPUE mode was chosen to perform full SAR testing and HPUE SAR can represent power class 3 level SAR.
12. 5G NR n7/n41/n66/n77/n78 supports UL MIMO mode.
13. The device supports HPUE (power class 2) under SISO mode and HPUE (power class 1.5) under UL MIMO mode for 5G NR n77/n78.
14. This device has NFC function and the NFC SAR report will be separately submitted.
15. RF exposure report for WPC (Wireless power charging) will be separately submitted.
16. The device support DBS (Dual Band Simultaneous) function, when the device WLAN 2.4GHz and WLAN 5GHz or WLAN 6GHz transmit at the same time the device will limit different output power for simultaneous transmission compliance.
17. This device supports 5G NR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
NSA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100

	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20, 25, 30, 35, 40
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 50
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 25, 30, 35, 40, 45
	n71	FDD	15	5, 10, 15, 20
	n38	TDD	30	10, 15, 20, 25, 30, 40
	n41	TDD	30	10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100
	n77	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	10, 15, 20, 25, 30, 40, 50, 60, 70, 80, 90, 100

4.2 General LTE SAR Test and Reporting Considerations

Summarized necessary items addressed in KDB 941225 D05 v02r05								
FCC ID	IHDT56AX4							
Equipment Name	Mobile Cellular Phone							
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz							
	LTE Band 4: 1710 MHz ~ 1755 MHz							
	LTE Band 5: 824 MHz ~ 849 MHz							
	LTE Band 7: 2500 MHz ~ 2570 MHz							
	LTE Band 12: 699 MHz ~ 716 MHz							
	LTE Band 13: 777 MHz ~ 787 MHz							
	LTE Band 17: 704 MHz ~ 716 MHz							
	LTE Band 25: 1850 MHz ~ 1910 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							
	LTE Band 66: 1710 MHz ~ 1780 MHz							
LTE Band 71: 663 MHz ~ 698 MHz								
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz							
	LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz							
	LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz							
	LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz							
	LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz							
	LTE Band 13: 5MHz, 10MHz							
	LTE Band 17: 5MHz, 10MHz							
	LTE Band 25:1.4MHz, 3MHz, 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							
	LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz							
	LTE Band 71: 5MHz, 10MHz, 15MHz, 20MHz							
uplink modulations used	QPSK / 16QAM / 64QAM / 256QAM							
LTE Voice / Data requirements	Voice and Data							
LTE Release Version	R15							
CA Support	Supported, Uplink and Downlink							
LTE MPR permanently built-in by design	Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 1, 2 and 3							
	Modulation	Channel bandwidth / Transmission bandwidth (N_{RB})						MPR (dB)
		1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
	QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
	16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
	16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2
	64 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 2
	64 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 3
	256 QAM	≥ 1						≤ 5
LTE A-MPR	In the base station simulator configuration, Network Setting value is set to NS_01 to disable A-MPR during SAR testing and the LTE SAR tests was transmitting on all TTI frames (Maximum TTI)							



Spectrum plots for RB configuration	A properly configured base station simulator was used for the SAR and power measurement; therefore, spectrum plots for each RB allocation and offset configuration are not included in the SAR report.
Power reduction applied to satisfy SAR compliance	Yes, when operating in 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 14.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 14.
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 2 carriers in the uplink.

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		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	20407	824.7	20415	825.5	20425	826.5	20450	829	20450	829	20450	829
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5	20525	836.5
H	20643	848.3	20635	847.5	20625	846.5	20600	844	20600	844	20600	844
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz		Bandwidth 25 MHz		Bandwidth 30 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510	20850	2510	20850	2510
M	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535	21100	2535
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560	21350	2560	21350	2560
LTE Band 12												
	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	23017	699.7	23025	700.5	23035	701.5	23060	704	23060	704	23060	704
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5	23095	707.5
H	23173	715.3	23165	714.5	23155	713.5	23130	711	23130	711	23130	711
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)		Channel #		Freq.(MHz)	
L	23205		779.5		23230		782		23255		784.5	
M	23230		782		23255		784.5		23280		787	
H	23255		784.5		23280		787		23305		789.5	
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz				Bandwidth 15 MHz			
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)		Channel #		Freq. (MHz)	
L	23755		706.5		23780		709		23805		711.5	
M	23790		710		23815		713		23840		716	
H	23825		713.5		23850		716.5		23875		719.5	
LTE Band 25												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26047	1850.7	26055	1851.5	26065	1852.5	26090	1855	26115	1857.5	26140	1860
M	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880	26340	1880
H	26633	1909.3	26625	1908.5	26615	1907.5	26590	1905	26565	1902.5	26540	1900

LTE Band 26										
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	26697	814.7	26705	815.5	26715	816.5	26740	819	26765	821.5
M	26865	831.5	26865	831.5	26865	831.5	26865	831.5	26865	831.5
H	27033	848.3	27025	847.5	27015	846.5	26990	844	26965	841.5

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

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

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

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

LTE Band 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 SA Overlap Bands Description>
1) LTE Bands BW

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

2) LTE Bands tune up:

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

Band	Ant	Full	DSI2	DSI3	DSI4	DSI6	DSI7
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 12	Ant 0	24	24	24	24	24	24
LTE Band 12	Ant 1	24	24	24	24	24	24
LTE Band 17	Ant 0	24	24	24	24	24	24
LTE Band 17	Ant 1	24	24	24	24	24	24
LTE Band 5	Ant 0	24	24	24	24	24	24
LTE Band 5	Ant 1	24	24	24	24	24	21
LTE Band 26	Ant 0	24	24	24	24	24	24
LTE Band 26	Ant 1	24	24	24	24	24	21
LTE Band 4	Ant 2	24	24	21	24	24	20.5
LTE Band 4	Ant 8	24	19.5	22	24	21.5	17.5
LTE Band 4	Ant 9	24	24	24	24	24	22
LTE Band 66	Ant 2	24	24	21	24	24	20.5
LTE Band 66	Ant 8	24	19.5	22	24	21.5	17.5
LTE Band 66	Ant 9	24	24	24	24	24	22
LTE Band 2	Ant 2	24	24	20	24	23	19.5
LTE Band 2	Ant 8	24	19.5	22	24	22	18.5
LTE Band 2	Ant 9	24	21.5	20.5	24	24	19
LTE Band 25	Ant 2	24	24	20	24	23	19.5
LTE Band 25	Ant 8	24	19.5	22	24	22	18.5
LTE Band 25	Ant 9	24	21.5	20.5	24	24	19
LTE Band 38	Ant 2	24	24	21	24	23	21
LTE Band 38	Ant 8	24	20	21	24	24	20
LTE Band 38	Ant 9	24	22.5	23	24	24	19
LTE Band 41(PC3)	Ant 2	24	24	21	24	23	21
LTE Band 41(PC2)	Ant 2	27	27	22.6	27	24.6	22.6
LTE Band 41(PC3)	Ant 8	24	20	21	24	24	20
LTE Band 41(PC2)	Ant 8	27	21.6	22.6	27	25.6	21.6
LTE Band 41(PC3)	Ant 9	24	22.5	23	24	24	19
LTE Band 41(PC2)	Ant 9	27	24.1	24.6	27	25.6	20.6

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information															
Operating Frequency Range of each 5G NR transmission band		5G NR n2: 1850 MHz ~ 1910 MHz 5G NR n5: 824 MHz ~ 849 MHz 5G NR n7: 2500 MHz ~ 2570 MHz 5G NR n26: 814 MHz ~ 849 MHz 5G NR n38: 2570 MHz ~ 2620 MHz 5G NR n41: 2496 MHz ~ 2690 MHz 5G NR n66: 1710 MHz ~ 1780 MHz 5G NR n71: 663 MHz ~ 698 MHz 5G NR n77: 3700 MHz ~ 3980 MHz 5G NR n78: 3700 MHz ~ 3800 MHz													
Channel Bandwidth		The detail please refers to section 4.1 5GNR FR1 bands table.													
SCS		FDD: SCS15KHz, TDD: SCS30KHz													
uplink modulations used		DFT-s-OFDM: PI/2 BPSK / QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM													
A-MPR (Additional MPR) disabled for SAR Testing?		Yes													
LTE Anchor Bands for n2		LTE B4/7/12/66													
LTE Anchor Bands for n5		LTE B2/7/66													
LTE Anchor Bands for n7		LTE B2/4/5/66													
LTE Anchor Bands for n26		LTE B7													
LTE Anchor Bands for n66		LTE B2/5/7/12/13													
LTE Anchor Bands for n71		LTE B2/66													
LTE Anchor Bands for n38		LTE B2/4/5/66													
LTE Anchor Bands for n41		LTE B2/4/5/12/66													
LTE Anchor Bands for n77		LTE B7/41/71													
LTE Anchor Bands for n78		LTE B2/4/5/7/12/38/41/66/71													

Transmission (H, M, L) channel numbers and frequencies in each 5G NR band															
NR Band 2															
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
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 370500	1852.5	371000	1855	371500	1857.5	372000	1860	372500	1862.5	373000	1865	373500	1867.5	374000	1870
M 376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880	376000	1880
H 381500	1907.5	381000	1905	380500	1902.5	380000	1900	379500	1897.5	379000	1895	378500	1892.5	378000	1890

NR Band 5								
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	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 35MHz		Bandwidth 40MHz	
Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L 500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	503500	2517.5	504000	2520
M 507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H 513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510500	2552.5	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)	Freq. (MHz)
L 163300	816.5	163800	819	164300	821.5	164800	824	
M 166300	831.5	166300	831.5	166300	831.5	166300	831.5	
H 169300	846.5	168800	844	168300	841.5	167800	839	

NR Band 66															
Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz	
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 342500	1712.5	343000	1715	343500	1717.5	344000	1720	344500	1722.5	345000	1725	345500	1727.5	346000	1730
M 349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745	349000	1745
H 355500	1777.5	355000	1775	354500	1772.5	354000	1770	353500	1767.5	353000	1765	352500	1762.5	352000	1760



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

	NR Band 38											
	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)
L	515000	2575	515500	2577.5	516000	2580	516500	2582.5	517000	2585	518000	2590
M	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595	519000	2595
H	523000	2615	522500	2612.5	522000	2610	521500	2607.5	521000	2605	520000	2600

NR Band 41																												
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 35MHz		Bandwidth 40MHz		Bandwidth 45MHz		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)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	
L	500202	2501.01	500700	2503.5	501204	2506.02	501702	2508.51	502200	2511	502704	2513.52	503202	2516.01	503700	2518.5	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	518598	2592.99	518598	2592.99	518598	2592.99
H	537000	2685	536498	2682.48	535998	2679.99	535500	2677.5	534998	2674.98	534498	2672.49	534000	2670	533498	2667.48	532998	2664.99	531998	2659.98	531000	2655	529998	2649.99	528998	2644.98	528000	2640

NR Band 77																								
	Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	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	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	665000	3975	664834	3972.51	664668	3970.02	664500	3967.50	664334	3965.01	664000	3960	663668	3955.02	663334	3950.01	663000	3945	662668	3940.02	662334	3935.01	662000	3930

NR Band 78																								
Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		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)	Ch. #	Freq. (MHz)	
L	647000	3705	647168	3707.52	647334	3710.01	647500	3712.5	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	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	653000	3795	652834	3792.51	652668	3790.02	652500	3787.5	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	Duplex	SCS(KHz)	Bandwidths(BW)
FR1 n5	TDD	15	5,10,15,20
FR1 n26	TDD	15	5,10,15,20
FR1 n38	TDD	30	10,15,20,25,30,40
FR1 n41	TDD	30	10,15,20,25,30,35,40,45,50,60,70,80,90,100
FR1 n77	TDD	30	10,15,20,25,30,40,50,60,70,80,90,100
FR1 n78	TDD	30	10,15,20,25,30,40,50,60,70,80,90,100

2) NR Bands Tune up:

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

Band	Ant	Full	DSI2	DSI3	DSI4	DSI6	DSI7
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant 0	24	24	24	24	24	24
FR1 n5	Ant 1	24	24	24	24	24	19
FR1 n26	Ant 0	24	24	24	24	24	24
FR1 n26	Ant 1	24	24	24	24	24	19
FR1 n38	Ant 2	24	24	18	24	19	17
FR1 n38	Ant 8	24	18.5	20.5	24	21.5	18
FR1 n38	Ant 9	24	20.5	20.5	24	21	17.5
FR1 n38	Ant 6	22	20.5	22	22	22	17
FR1 n41 PC3	Ant 2	24	24	18	24	19	17
FR1 n41 PC2	Ant 2	27	27	18	27	19	17
FR1 n41 PC3	Ant 8	24	18.5	20.5	24	21.5	18
FR1 n41 PC2	Ant 8	27	18.5	20.5	27	21.5	18
FR1 n41 PC3	Ant 9	24	20.5	20.5	24	21	17.5
FR1 n41 PC2	Ant 9	27	20.5	20.5	27	21	17.5
FR1 n41 PC3	Ant 6	22	20.5	22	22	22	17
FR1 n41 PC2	Ant 6	24	20.5	23	24	23	17
FR1 n77 PC3	Ant 4	24	16.5	21.5	24	22.5	19.5
FR1 n77 PC2	Ant 4	27	16.5	21.5	27	22.5	19.5
FR1 n77 PC3	Ant 5	24	20	23	24	22.5	19
FR1 n77 PC2	Ant 5	27	20	23	27	22.5	19
FR1 n77 PC3	Ant 7	24	16.5	20	24	21.5	20
FR1 n77 PC2	Ant 7	27	16.5	20	27	21.5	20
FR1 n77 PC3	Ant 11	24	24	16	24	18.5	14
FR1 n77 PC2	Ant 11	27	27	16	27	18.5	14
FR1 n78 PC3	Ant 4	24	16.5	21.5	24	22.5	19.5
FR1 n78 PC2	Ant 4	27	16.5	21.5	27	22.5	19.5
FR1 n78 PC3	Ant 5	24	20	23	24	22.5	19
FR1 n78 PC2	Ant 5	27	20	23	27	22.5	19
FR1 n78 PC3	Ant 7	24	16.5	20	24	21.5	20
FR1 n78 PC2	Ant 7	27	16.5	20	27	21.5	20
FR1 n78 PC3	Ant 11	24	24	16	24	18.5	14
FR1 n78 PC2	Ant 11	27	27	16	27	18.5	14

5. TA-SAR feature for RF Exposure compliance

WWAN bands and mmWave are all enabled with MediaTek TA-SAR feature. This feature performs time averaging algorithm in real time to control and manage transmitting power and ensure the time-averaged RF exposure is in compliance with FCC requirements all the time. Note that WLAN/BT operations are not enabled with TA-SAR feature.

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

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

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

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

<Terminologies in this report>

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

<SAR Characterization>

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

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

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

<Plimit for supported technologies and bands >

Band	Antenna	ECI2	ECI3	ECI6	ECI7	ECI4	Pmax*
		Head	Body worn	Handheld	Hotspot	Sensor off	
GSM850	Ant 0	31.1	26.6	27.8	26.6	26.5	26.5
GSM1900	Ant 2	28.4	17.8	19.8	17.8	23.0	23.0
WCDMA II	Ant 2	26.7	18.2	20.7	17.2	23.0	23.0
WCDMA IV	Ant 2	28.2	19.0	20.7	17.7	23.0	23.0
WCDMA V	Ant 0	30.1	25.5	23.0	25.5	23.0	23.0
LTE Band 2	Ant 2	35.0	19.0	22.0	18.5	23.0	23.0
LTE Band 2	Ant 8	18.5	21.0	21.0	17.5	23.0	23.0
LTE Band 2	Ant 9	20.5	19.5	23.6	18.0	23.0	23.0
LTE Band 4	Ant 2	29.9	20.0	23.4	19.5	23.0	23.0
LTE Band 4	Ant 8	18.5	21.0	20.5	16.5	23.0	23.0
LTE Band 4	Ant 9	23.4	23.0	23.0	21.0	23.0	23.0
LTE Band 5	Ant 0	31.3	26.5	23.0	26.1	23.0	23.0
LTE Band 5	Ant 1	24.2	24.7	23.0	20.0	23.0	23.0
LTE Band 7	Ant 2	34.2	18.0	20.5	18.0	23.0	23.0
LTE Band 7	Ant 8	17.5	19.5	20.5	16.5	23.0	23.0
LTE Band 7	Ant 9	20.5	21.5	21.0	17.5	23.0	23.0
LTE Band 12	Ant 0	33.6	27.0	23.0	27.2	23.0	23.0
LTE Band 12	Ant 1	24.8	23.4	23.0	20.0	23.0	23.0
LTE Band 13	Ant 0	32.0	26.3	23.0	27.2	23.0	23.0
LTE Band 13	Ant 1	23.2	22.0	23.7	17.0	23.0	23.0
LTE Band 17	Ant 0	33.6	27.0	23.0	27.2	23.0	23.0
LTE Band 17	Ant 1	24.8	23.4	23.0	20.0	23.0	23.0
LTE Band 25	Ant 2	35.0	19.0	22.0	18.5	23.0	23.0
LTE Band 25	Ant 8	18.5	21.0	21.0	17.5	23.0	23.0
LTE Band 25	Ant 9	20.5	19.5	23.6	18.0	23.0	23.0
LTE Band 26	Ant 0	31.3	26.5	23.0	26.1	23.0	23.0
LTE Band 26	Ant 1	24.2	24.7	23.0	20.0	23.0	23.0
LTE Band 66	Ant 2	29.9	20.0	23.4	19.5	23.0	23.0
LTE Band 66	Ant 8	18.5	21.0	20.5	16.5	23.0	23.0
LTE Band 66	Ant 9	23.4	23.0	23.0	21.0	23.0	23.0
LTE Band 71	Ant 0	32.5	26.7	23.0	27.4	23.0	23.0
LTE Band 71	Ant 1	26.5	24.6	23.0	22.0	23.0	23.0
LTE Band 38	Ant 2	30.1	18.0	20.0	18.0	21.0	21.0
LTE Band 38	Ant 8	17.0	18.0	21.0	17.0	21.0	21.0
LTE Band 38	Ant 9	19.5	20.0	21.0	16.0	21.0	21.0
LTE Band 41 PC3	Ant 2	30.1	18.0	20.0	18.0	22.4	21.0
LTE Band 41 PC2	Ant 2						22.4
LTE Band 41 PC3	Ant 8	17.0	18.0	21.0	17.0	22.4	21.0
LTE Band 41 PC2	Ant 8						22.4
LTE Band 41 PC3	Ant 9	19.5	20.0	21.0	16.0	22.4	21.0
LTE Band 41 PC2	Ant 9						22.4
LTE Band 42	Ant 4	16.0	19.0	20.0	15.5	21.0	21.0
LTE Band 42	Ant 5	17.5	20.0	21.0	18.5	21.0	21.0
LTE Band 42	Ant 7	21.3	21.4	21.0	20.0	21.0	21.0
LTE Band 42	Ant 11	30.9	18.0	20.0	15.0	21.0	21.0
n2	Ant 2	30.7	18.0	20.0	17.0	23.0	23.0

n2	Ant 8	17.5	20.0	21.0	17.5	23.0	23.0
n2	Ant 9	18.5	18.0	21.5	17.0	23.0	23.0
n5	Ant 0	31.4	27.4	23.0	27.4	23.0	23.0
n5	Ant 1	25.5	23.9	25.2	18.0	23.0	23.0
n7	Ant 2	30.1	18.0	18.5	16.0	23.0	23.0
n7	Ant 8	16.0	18.0	20.0	15.5	23.0	23.0
n7	Ant 9	20.0	19.5	21.0	17.0	23.0	23.0
n26	Ant 0	31.4	27.4	23.0	27.4	23.0	23.0
n26	Ant 1	25.5	23.9	25.2	18.0	23.0	23.0
n66	Ant 2	32.1	19.5	21.0	17.5	23.0	23.0
n66	Ant 8	17.0	19.5	19.5	16.5	23.0	23.0
n66	Ant 9	21.5	19.5	23.4	19.0	23.0	23.0
n71	Ant 0	32.2	26.7	23.0	23.0	23.0	23.0
n71	Ant 1	26.2	24.1	23.0	19.5	23.0	23.0
n38	Ant 2	29.6	17.0	18.0	16.0	23.0	23.0
n38	Ant 8	17.5	19.5	20.5	17.0	23.0	23.0
n38	Ant 9	19.5	19.5	20.0	16.5	23.0	23.0
n38	Ant 6	19.5	22.0	22.0	16.0	21.0	21.0
n41 PC3	Ant 2	29.6	17.0	18.0	16.0	26.0	23.0
n41 PC2	Ant 2						26.0
n41 PC3	Ant 8	17.5	19.5	20.5	17.0	26.0	23.0
n41 PC2	Ant 8						26.0
n41 PC3	Ant 9	19.5	19.5	20.0	16.5	26.0	23.0
n41 PC2	Ant 9						26.0
n41 PC3	Ant 6	19.5	22.0	22.0	16.0	23.0	21.0
n41 PC2	Ant 6						23.0
n77 PC3	Ant 4	15.5	20.5	21.5	18.5	26.0	23.0
n77 PC2	Ant 4						26.0
n77 PC3	Ant 5	19.0	22.0	21.5	18.0	26.0	23.0
n77 PC2	Ant 5						26.0
n77 PC3	Ant 7	15.5	19.0	20.5	19.0	26.0	23.0
n77 PC2	Ant 7						26.0
n77 PC3	Ant 11	31.2	15.0	17.5	13.0	26.0	23.0
n77 PC2	Ant 11						26.0
n78 PC3	Ant 4	15.5	20.5	21.5	18.5	26.0	23.0
n78 PC2	Ant 4						26.0
n78 PC3	Ant 5	19.0	22.0	21.5	18.0	26.0	23.0
n78 PC2	Ant 5						26.0
n78 PC3	Ant 7	15.5	19.0	20.5	19.0	26.0	23.0
n78 PC2	Ant 7						26.0
n78 PC3	Ant 11	31.2	15.0	17.5	13.0	26.0	23.0
n78 PC2	Ant 11						26.0

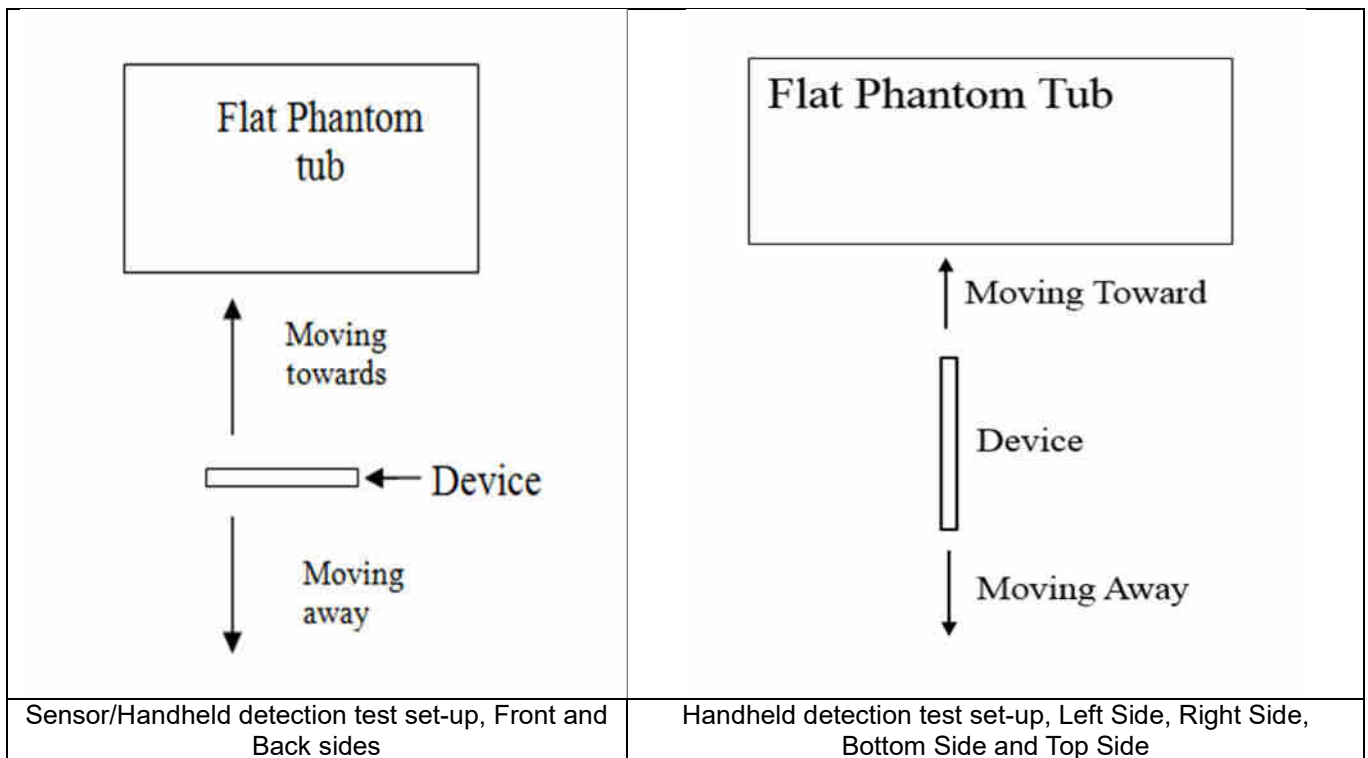
Note:

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

6. 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 (7200MHz) and lowest (750MHz) 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:



<P-Sensor>

Proximity Sensor Triggering Distance (mm)				
Position	Front		Back	
	Moving towards	Moving away	Moving towards	Moving away
Minimum	18	23	21	26

<Handheld for ANT 0/2>

Proximity Sensor Triggering Distance (mm)								
Position	Front		Back		Right Side		Bottom Side	
	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away	Moving towards	Moving away
Minimum	6	12	9	12	7	13	10	16

<Handheld for ANT 4/8/9>

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	7	13	6	11	7	13	9	14

<Handheld for ANT3/5/6/7>

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	13	3	9	8	14	7	13

<Handheld for ANT 11>

Proximity Sensor Triggering Distance (mm)		
Position	Back	
	Moving towards	Moving away
Minimum	7	12

7. RF Exposure Limits

7.1 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.

7.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7.3 RF Exposure limit for above 6GHz

According to ANSI/IEEE C95.1-1992, the criteria listed in Table 1 shall be used to evaluate the environmental impact of human exposure to radio frequency (RF) radiation as specified in §1.1310. The unit of power density evaluation is W/m² or mW/cm².

Peak Spatially Averaged Power Density was evaluated over a square area of 4cm² per interim FCC Guidance for near-field power density evaluations per October 2018 TCB Workshop notes

Frequency range (MHz)	Electric field strength (V/m)	Magnetic field strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
(A) Limits for Occupational/Controlled Exposures				
0.3-3.0	614	1.63	*(100)	6
3.0-30	1842/f	4.89/f	*(900/f ²)	6
30-300	61.4	0.163	1.0	6
300-1500			f/300	6
1500-100,000			5	6
(B) Limits for General Population/Uncontrolled Exposure				
0.3-1.34	614	1.63	*(100)	30
1.34-30	824/f	2.19/f	*(180/f ²)	30
30-300	27.5	0.073	0.2	30
300-1500			f/1500	30
1500-100,000			1.0	30

Note: 1.0 mW/cm² is 10 W/m²

8. Specific Absorption Rate (SAR)

8.1 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.

8.2 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:

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

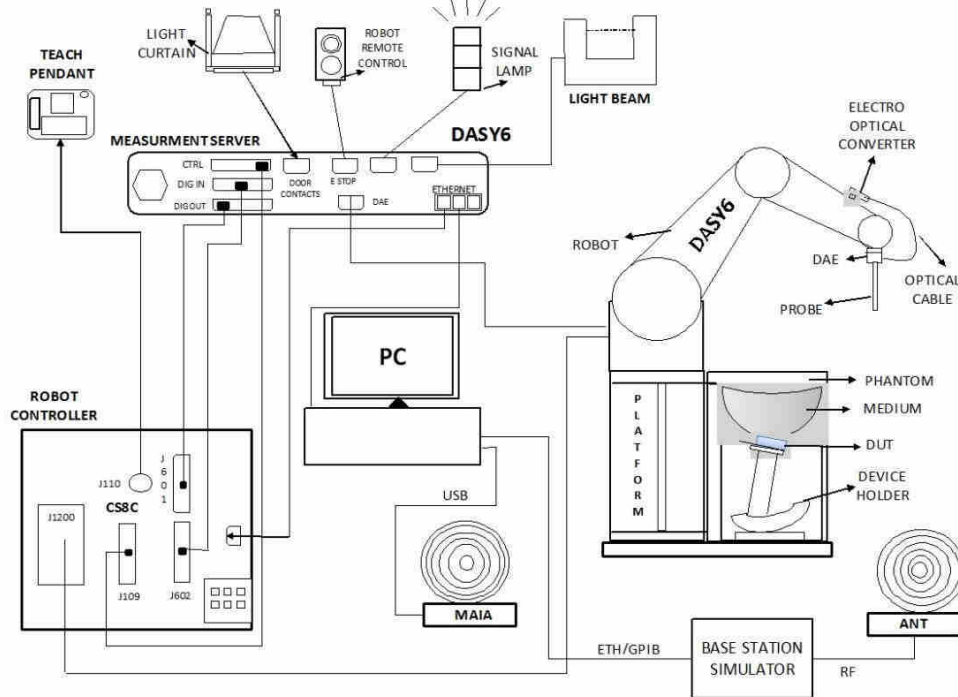
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

9. 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.

Note: 1. DASY6 software used: DASY6 mmWave V3.2.0.1840 and older generations and used the developed Plane-to-Plane Phase Reconstruction (PTP-PR) Algorithm which was used in PD measurement.

9.1 E-Field Probe

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

<EX3DV4 Probe>

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

9.2 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

9.3 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.

9.4 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

10. 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

10.1 Spatial Peak SAR Evaluation

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

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

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

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

10.2 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.

10.3 Area Scan

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

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

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

10.4 Zoom Scan

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

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

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

10.5 Volume Scan Procedures

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

10.6 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.

11. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1087	Mar. 12, 2025	Mar. 11, 2026
SPEAG	835MHz System Validation Kit	D835V2	4d167	Dec. 02, 2025	Dec. 01, 2026
SPEAG	1750MHz System Validation Kit	D1750V2	1090	Mar. 12, 2025	Mar. 11, 2026
SPEAG	1900MHz System Validation Kit	D1900V2	5d170	Jun. 30, 2025	Jun. 29, 2026
SPEAG	2450MHz System Validation Kit	D2450V2	1095	Feb. 08, 2024	Feb. 06, 2026
SPEAG	2600MHz System Validation Kit	D2600V2	1112	Dec. 18, 2023	Dec. 15, 2026
SPEAG	3500MHz System Validation Kit	D3500V2	1076	Apr. 16, 2025	Apr. 15, 2026
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 13, 2025	Aug. 12, 2026
SPEAG	5000MHz System Validation Kit	D5GHzV2	1113	Sep. 17, 2025	Sep. 16, 2026
SPEAG	6500MHz System Validation Kit	D6.5GHzV2	1003	Mar. 14, 2025	Mar. 13, 2026
SPEAG	5G Verification Source	10GHz	2002	Feb. 20, 2025	Feb. 19, 2026
SPEAG	Data Acquisition Electronics	DAE4	1326	Jul. 11, 2025	Jul. 10, 2026
SPEAG	Data Acquisition Electronics	DAE4	1386	Sep. 15, 2025	Sep. 14, 2026
SPEAG	Data Acquisition Electronics	DAE4	715	Nov. 28, 2025	Nov. 27, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	7641	Jun. 26, 2025	Jun. 25, 2026
SPEAG	Dosimetric E-Field Probe	EX3DV4	3819	Sep. 11, 2025	Sep. 10, 2026
SPEAG	EUmmWV Probe Tip Protection	EUmmWV4	9461	Oct. 15, 2025	Oct. 14, 2026
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1795	NCR	NCR
SPEAG	SAM Twin Phantom	QD 000 P41 AA	2033	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201300653	Jul. 03, 2025	Jul. 02, 2026
Anritsu	Radio communication analyzer	MT8821C	6272416846	Apr. 01, 2025	Mar. 31, 2026
Agilent	Wireless Communication Test Set	E5515C	MY50267224	Jul. 04, 2025	Jul. 03, 2026
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 14, 2025	Oct. 13, 2026
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Feb. 24, 2025	Feb. 23, 2026
Agilent	Signal Generator	N5181A	MY50145381	Dec. 25, 2025	Dec. 24, 2026
R&S	Signal Generator	SMB100A	175779	Dec. 24, 2025	Dec. 23, 2026
Anritsu	Power Sensor	MA2411B	1306099	Oct. 14, 2025	Oct. 13, 2026
Anritsu	Power Meter	ML2495A	1349001	Oct. 14, 2025	Oct. 13, 2026
R&S	Power Sensor	NRP50S	101254	Apr. 01, 2025	Mar. 31, 2026
R&S	Power Sensor	NRP50S	101548	Dec. 25, 2025	Dec. 24, 2026
R&S	Power Sensor	NRP251	103113	Apr. 01, 2025	Mar. 31, 2026
R&S	Power Sensor	NRP8S	109228	Apr. 01, 2025	Mar. 31, 2026
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 24, 2025	Dec. 23, 2026
R&S	Spectrum Analyzer	FSP7	100818	Jul. 03, 2025	Jul. 02, 2026
TES	Hygrometer	1310	200505600	Jul. 05, 2025	Jul. 04, 2026
Anymetre	Thermo-Hygrometer	JR593	2015030903	Dec. 26, 2025	Dec. 25, 2026
Anymetre	Thermo-Hygrometer	JR593	2020062101	Jul. 05, 2025	Jul. 04, 2026
SPEAG	Device Holder	N/A	N/A	Note 1	
Warison	Directional Coupler	WCOU-10-50S-10	WR889BMC4BMC1	Note 1	
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
Mini-Circuits	Amplifier	ZVA-183W-S+	726202215	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
ATM	Dual Directional Coupler	C122H-10	P610410z-02	Note 1	
Jinkexinhua	Attenuator 1	10db-8G	N/A	Note 1	
Weinschel	Attenuator 2	3M-20	N/A	Note 1	

Note:

1. Prior to system verification and validation, the path loss from the signal generator to the system check source and the power meter, which includes the amplifier, cable, attenuator and directional coupler, was measured by the network analyzer. The reading of the power meter was offset by the path loss difference between the path to the

- power meter and the path to the system check source to monitor the actual power level fed to the system check.
2. Referring to KDB 865664 D01v01r04, the dipole calibration interval can be extended to 3 years with justification. The dipoles are also not physically damaged, or repaired during the interval.
3. The justification data of dipole can be found in appendix C. The return loss is < -20dB, within 20% of prior calibration, the impedance is within 5 ohm of prior calibration.

12. System Verification

12.1 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

12.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

**<Tissue Dielectric Parameter Check Results>**

Frequency (MHz)	Tissue Type	Liquid Temp (°C)	Conductivity (σ)	Permittivity (ϵ_r)	Conductivity Target (σ)	Permittivity Target (ϵ_r)	Delta (σ) (%)	Delta (ϵ_r) (%)	Limit (%)	Date
750	Head	22.5	0.920	42.959	0.89	41.90	3.37	2.53	±5	2026/1/21
750	Head	22.8	0.912	42.500	0.89	41.90	2.47	1.43	±5	2026/2/6
835	Head	22.3	0.943	42.536	0.90	41.50	4.78	2.50	±5	2026/1/23
835	Head	22.4	0.933	42.900	0.90	41.50	3.67	3.37	±5	2026/2/8
1750	Head	22.7	1.380	40.717	1.37	40.10	0.73	1.54	±5	2026/1/25
1750	Head	22.5	1.390	39.900	1.37	40.10	1.46	-0.50	±5	2026/2/9
1900	Head	22.8	1.453	40.499	1.40	40.00	3.79	1.25	±5	2026/1/27
1900	Head	22.4	1.450	38.400	1.40	40.00	3.57	-4.00	±5	2026/2/11
2450	Head	22.6	1.820	41.000	1.80	39.20	1.11	4.59	±5	2026/1/21
2450	Head	22.3	1.810	39.300	1.80	39.20	0.56	0.26	±5	2026/2/4
2600	Head	22.5	1.964	39.416	1.96	39.00	0.20	1.07	±5	2026/1/30
2600	Head	22.7	1.990	39.100	1.96	39.00	1.53	0.26	±5	2026/2/14
3500	Head	22.4	2.770	39.200	2.91	37.90	-4.81	3.43	±5	2026/1/30
3500	Head	22.3	2.850	36.900	2.91	37.90	-2.06	-2.64	±5	2026/2/15
3900	Head	22.5	3.200	38.600	3.33	37.51	-3.90	2.91	±5	2026/2/1
3900	Head	22.7	3.260	36.700	3.33	37.51	-2.10	-2.16	±5	2026/2/17
5250	Head	22.4	4.537	37.027	4.71	35.95	-3.67	3.00	±5	2026/2/3
5250	Head	22.3	4.550	37.400	4.71	35.95	-3.40	4.03	±5	2026/2/19
5600	Head	22.5	4.870	36.569	5.07	35.50	-3.94	3.01	±5	2026/2/5
5600	Head	22.6	4.910	37.100	5.07	35.50	-3.16	4.51	±5	2026/2/20
5800	Head	22.7	5.132	36.458	5.27	35.30	-2.62	3.28	±5	2026/2/7
5800	Head	22.4	5.270	35.200	5.27	35.30	0.00	-0.28	±5	2026/2/22
6500	Head	22.2	6.080	34.000	6.07	34.50	0.16	-1.45	±5	2026/2/9
6500	Head	22.8	5.830	33.700	6.07	34.50	-3.95	-2.32	±5	2026/2/23

12.3 System Performance Check Results

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

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2026/1/21	750	Head	250	D750V3-1087	EX3DV4 - SN3819	DAE4 Sn1386	2.080	8.680	8.32	-4.15	1.320	5.610	5.28	-5.88
2026/2/6	750	Head	250	D750V3-1087	EX3DV4 - SN7641	DAE4 Sn1326	2.010	8.680	8.04	-7.37	1.290	5.610	5.16	-8.02
2026/1/23	835	Head	250	D835V2-4d167	EX3DV4 - SN3819	DAE4 Sn1386	2.180	9.360	8.72	-6.84	1.390	6.050	5.56	-8.10
2026/2/8	835	Head	250	D835V2-4d167	EX3DV4 - SN7641	DAE4 Sn1326	2.350	9.360	9.4	0.43	1.480	6.050	5.92	-2.15
2026/1/25	1750	Head	250	D1750V2-1090	EX3DV4 - SN3819	DAE4 Sn1386	9.280	36.600	37.12	1.42	4.860	19.500	19.44	-0.31
2026/2/9	1750	Head	250	D1750V2-1090	EX3DV4 - SN7641	DAE4 Sn1326	9.160	36.600	36.64	0.11	4.780	19.500	19.12	-1.95
2026/1/27	1900	Head	250	D1900V2-5d170	EX3DV4 - SN3819	DAE4 Sn1386	9.470	39.600	37.88	-4.34	4.960	20.900	19.84	-5.07
2026/2/11	1900	Head	250	D1900V2-5d170	EX3DV4 - SN7641	DAE4 Sn1326	9.890	39.600	39.56	-0.10	5.010	20.900	20.04	-4.11
2026/1/21	2450	Head	250	D2450V2-1095	EX3DV4 - SN7641	DAE4 Sn1326	13.900	52.600	55.6	5.70	6.220	24.700	24.88	0.73
2026/2/4	2450	Head	250	D2450V2-1095	EX3DV4 - SN7641	DAE4 Sn1326	12.200	52.600	48.8	-7.22	6.010	24.700	24.04	-2.67
2026/1/30	2600	Head	250	D2600V2-1112	EX3DV4 - SN3819	DAE4 Sn1386	14.100	55.100	56.4	2.36	6.190	24.800	24.76	-0.16
2026/2/14	2600	Head	250	D2600V2-1112	EX3DV4 - SN7641	DAE4 Sn1326	13.500	55.100	54	-2.00	6.310	24.800	25.24	1.77
2026/1/30	3500	Head	100	D3500V2-1076	EX3DV4 - SN7641	DAE4 Sn1326	6.780	65.800	67.8	3.04	2.480	25.000	24.8	-0.80
2026/2/15	3500	Head	100	D3500V2-1076	EX3DV4 - SN7641	DAE4 Sn1326	6.950	65.800	69.5	5.62	2.520	25.000	25.2	0.80
2026/2/1	3900	Head	100	D3900V2-1022	EX3DV4 - SN7641	DAE4 Sn1326	7.140	70.100	71.4	1.85	2.440	24.600	24.4	-0.81
2026/2/17	3900	Head	100	D3900V2-1022	EX3DV4 - SN7641	DAE4 Sn1326	7.050	70.100	70.5	0.57	2.390	24.600	23.9	-2.85
2026/2/3	5250	Head	100	D5GHzV2-1113	EX3DV4 - SN3819	DAE4 Sn1386	7.990	78.100	79.9	2.30	2.350	22.400	23.5	4.91
2026/2/19	5250	Head	100	D5GHzV2-1113	EX3DV4 - SN7641	DAE4 Sn1326	7.490	78.100	74.9	-4.10	2.080	22.400	20.8	-7.14
2026/2/5	5600	Head	100	D5GHzV2-1113	EX3DV4 - SN3819	DAE4 Sn1386	8.110	80.000	81.1	1.37	2.210	23.000	22.1	-3.91
2026/2/20	5600	Head	100	D5GHzV2-1113	EX3DV4 - SN7641	DAE4 Sn1326	8.530	80.000	85.3	6.63	2.270	23.000	22.7	-1.30
2026/2/7	5800	Head	100	D5GHzV2-1113	EX3DV4 - SN3819	DAE4 Sn1386	8.220	77.900	82.2	5.52	2.350	22.300	23.5	5.38
2026/2/22	5800	Head	100	D5GHzV2-1113	EX3DV4 - SN7641	DAE4 Sn1326	8.330	77.900	83.3	6.93	2.270	22.300	22.7	1.79
2026/2/9	6500	Head	100	D6.5GHzV2-1003	EX3DV4 - SN7641	DAE4 Sn1326	29.900	294.000	299	1.70	5.440	54.700	54.4	-0.55
2026/2/23	6500	Head	100	D6.5GHzV2-1003	EX3DV4 - SN7641	DAE4 Sn1326	29.300	294.000	293	-0.34	5.250	54.700	52.5	-4.02

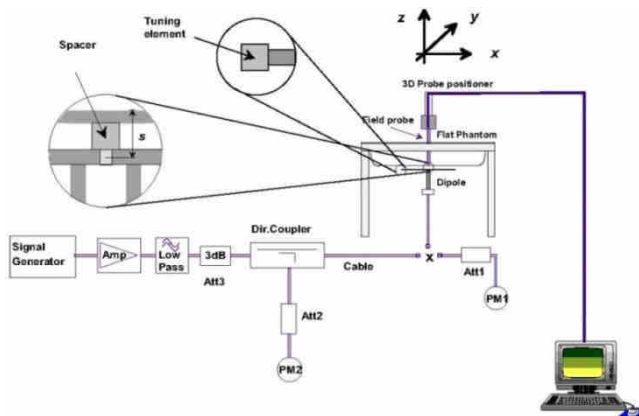


Fig 11.3.1 System Performance Check Setup

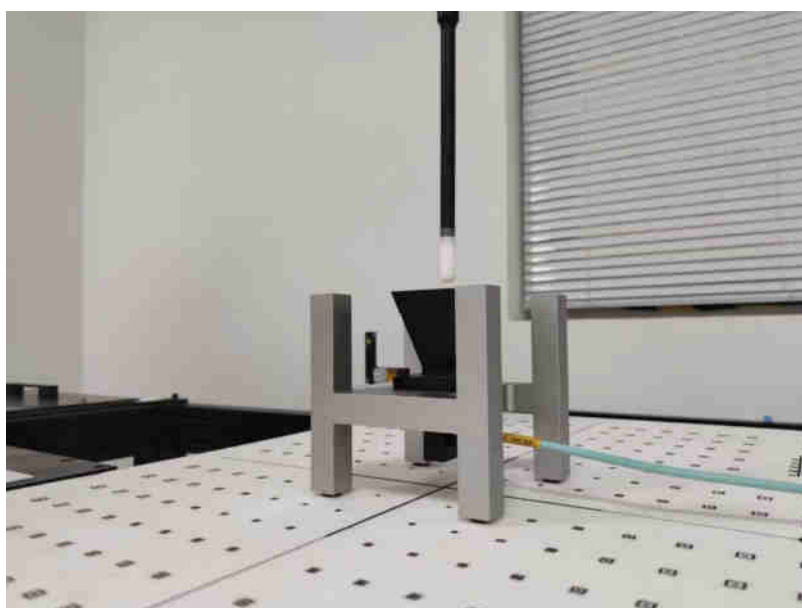


Fig 11.3.2 Setup Photo

12.4 PD System Verification Results

The system was verified to be within ± 0.66 dB of the power density targets on the calibration certificate according to the test system specification in the user's manual and calibration facility recommendation. The 0.66 dB deviation threshold represents the expanded uncertainty for system performance checks using SPEAG's mmWave verification sources. The same spatial resolution and measurement region used in the source calibration was applied during the system check. The measured power density distribution of verification source was also confirmed through visual inspection to have no noticeable differences, both spatially (shape) and numerically (level) from the distribution provided by the manufacturer, per November 2017 TCBC Workshop Notes.

Frequency (GHz)	5G Verification Source	Probe S/N	DAE S/N	Distance (mm)	Prad (mW)	Measured psPDn+ 4 cm ² (W/m ²)	Targeted psPDn+ 4 cm ² (W/m ²)	Deviation (dB)	Measured psPDtot+ 4 cm ² (W/m ²)	Targeted psPDtot+ 4 cm ² (W/m ²)	Deviation (dB)	Measured psPDmod+ 4 cm ² (W/m ²)	Targeted psPDmod+ 4 cm ² (W/m ²)	Deviation (dB)	Test date
10	10GHz_2002	9461	715	10	138	173	166	0.18	175	167	0.20	178	172	0.15	2026/2/14



System Verification Setup Photo

13. RF Exposure Positions

13.1 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.

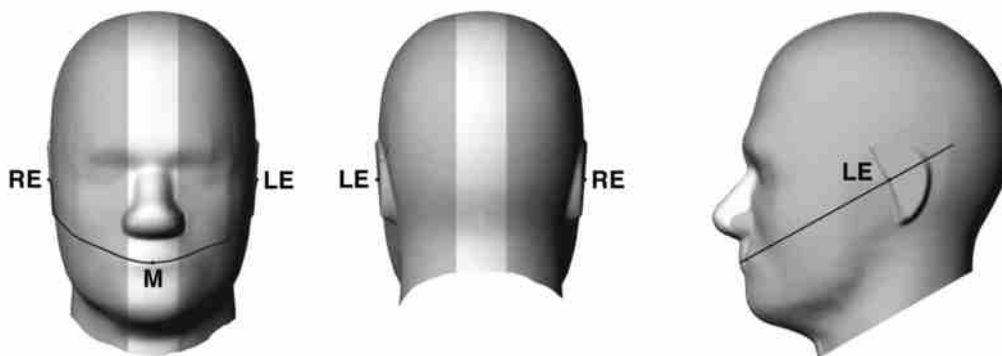


Fig 12.1.1 Front, back, and side views of SAM twin phantom

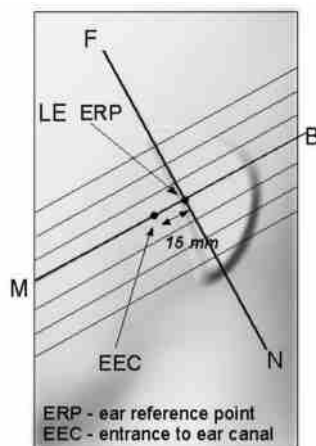


Fig 12.1.2 Close-up side view of phantom showing the ear region.

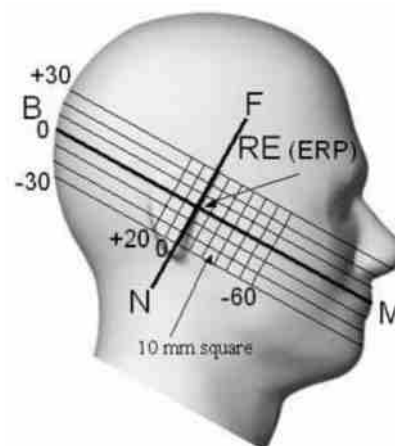


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

13.2 Definition of the cheek position

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

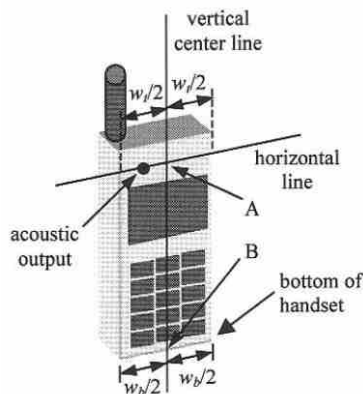


Fig 12.2.1 Handset vertical and horizontal reference lines—“fixed case”

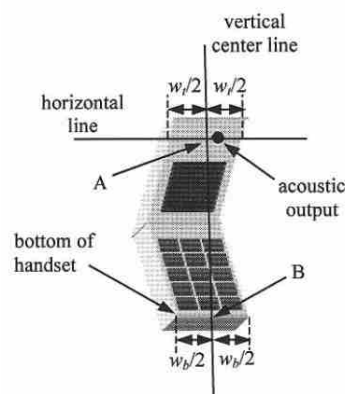


Fig 12.2.2 Handset vertical and horizontal reference lines—“clam-shell case”

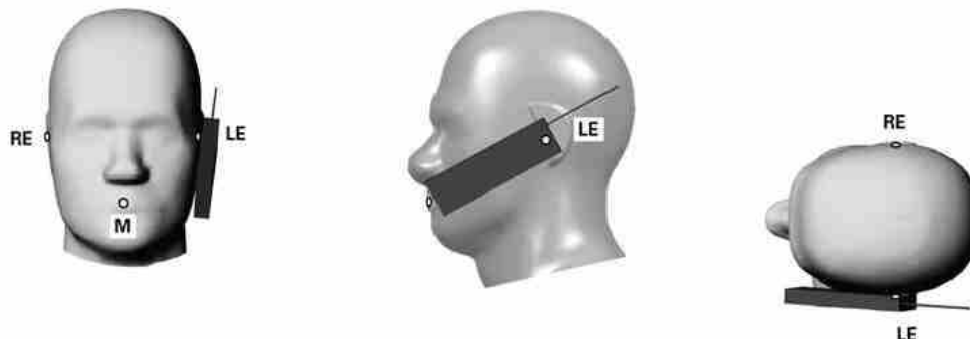


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

13.3 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

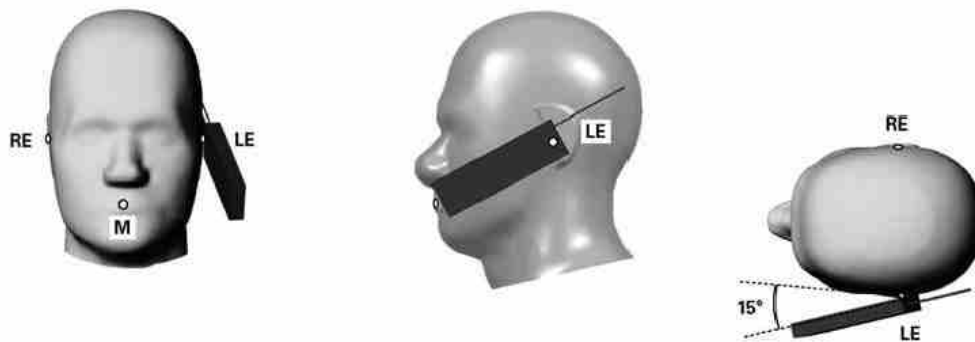


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

13.4 Body Worn Accessory

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

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

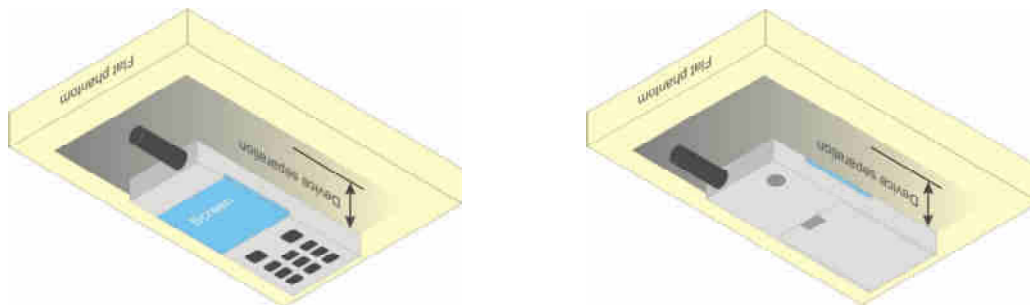


Fig 12.4 Body Worn Position

13.5 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.

13.6 Wireless Router

Some battery-operated handsets have the capability to transmit and receive user through simultaneous transmission of WIFI simultaneously with a separate licensed transmitter. The FCC has provided guidance in FCC KDB Publication 941225 D06 v02r01 where SAR test considerations for handsets ($L \times W \geq 9 \text{ cm} \times 5 \text{ cm}$) are based on a composite test separation distance of 10mm from the front, back and edges of the device containing transmitting antennas within 2.5cm of their edges, determined from general mixed use conditions for this type of devices. Since the hotspot SAR results may overlap with the body-worn accessory SAR requirements, the more conservative configurations can be considered, thus excluding some body-worn accessory SAR tests.

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

13.7 Miscellaneous Testing Considerations

- Evaluate SAR using 6-7 GHz parameters per IEC/IEEE 62209-1528:2020.
- Per procedures of KDB Pubs. 447498 and 248227, and applicable product-specific procedures among KDB Pubs. 648474 (handsets/phablets).
- Where supported by the test system, also report estimated absorbed (epithelial) power density (for reference purposes only, not specifically for compliance) and estimated incident PD, derived from measured SAR.
- In addition, for the highest SAR test configurations evaluate incident PD using the mmw near-field probe and total-field/power-density reconstruction method (2 mm closest meas. plane)

Adjust measured results per amount that measurement uncertainty exceeds 30 % (see e.g. IEC 62479:2010)

14. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. Per KDB 447498 D01v06, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

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

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

Setup Configuration

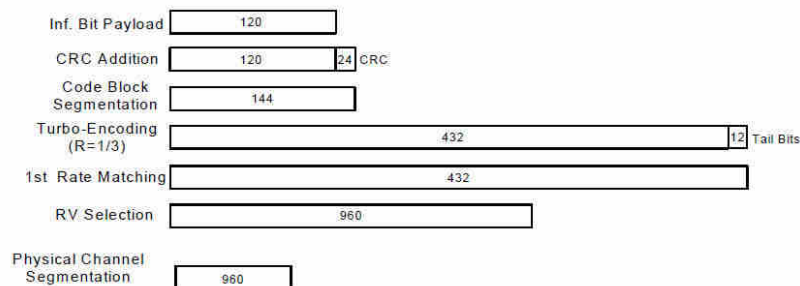
DC-HSDPA 3GPP release 8 Setup Configuration:

- a. The EUT was connected to Base Station 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: $\beta_c/\beta_d=2/15$
 - b). Subtest 2: $\beta_c/\beta_d=12/15$
 - c). Subtest 3: $\beta_c/\beta_d=15/8$
 - d). Subtest 4: $\beta_c/\beta_d=15/4$
 - vi. Set Delta ACK, Delta NACK and Delta CQI = 8
 - vii. Set Ack-Nack Repetition Factor to 3
 - viii. Set CQI Feedback Cycle (k) to 4 ms
 - ix. Set CQI Repetition Factor to 2
 - x. Power Ctrl Mode = All Up bits
- d. The transmitted maximum output power was recorded.

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

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

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


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

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

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

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

Sub-test	β_c (Note 3)	β_d	β_{HS} (Note 1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	β_{ed1} : 30/15 β_{ed2} : 30/15	β_{ed3} : 24/15 β_{ed4} : 24/15	3.5	2.5	14	105	105

Note 1: Δ_{ACK} , Δ_{NACK} and $\Delta_{CQI} = 30/15$ with $\beta_{fs} = 30/15 * \beta_c$.
 Note 2: CM = 3.5 and the MPR is based on the relative CM difference, MPR = MAX(CM-1,0).
 Note 3: DPDCH is not configured, therefore the β_c is set to 1 and $\beta_d = 0$ by default.
 Note 4: β_{ed} can not be set directly; it is set by Absolute Grant Value.
 Note 5: All the sub-tests require the UE to transmit 2SF2+2SF4 16QAM EDCH and they apply for UE using E-DPDCH category 7. E-DCH TTI is set to 2ms TTI and E-DCH table index = 2. To support these E-DCH configurations DPDCH is not allocated. The UE is signaled to use the extrapolation algorithm.

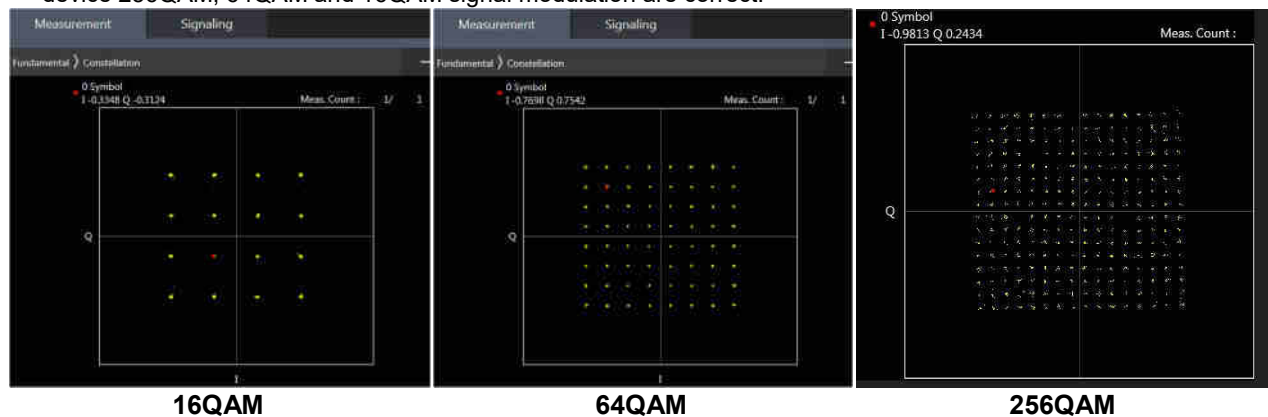
Setup Configuration
<WCDMA Conducted Power>
General Note:

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

<LTE Conducted Power>

General Note:

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



<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

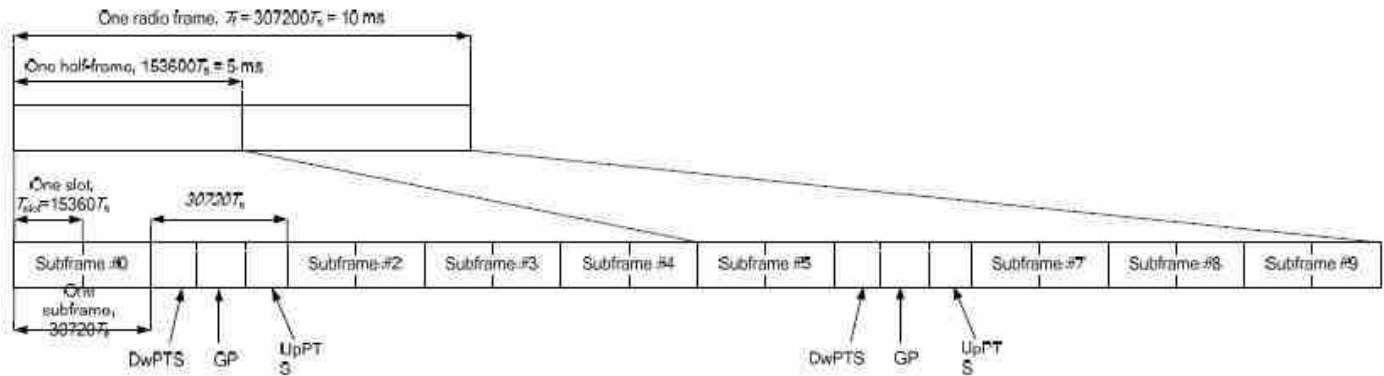


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 2

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

For LTE TDD Power class 3

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

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

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

<LTE Carrier Aggregation>

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

General Note:

1. Per Oct. 2024 TCB workshop, the downlink (DL) pertains to receiver functionality, thus it is not related to RF exposure compliance limits related to cumulative effects of different transmitters.
2. Per Oct. 2024 TCB workshop, equipment authorization applications shall refer to the worst-case UL powers resulting from all the possible modes of operations. Accordingly, CA-DL cases do not need to be analyzed separately, unless pertinent to establishing UL power setting.
3. Per Oct. 2024 TCB workshop, Manufacturer declares that TX power measurement for multiple DL CA configurations is deemed not required as the DL CA has no impact on the TX power according to preliminary scan. TX power measured in LTE standalone operation represents the worst case.
4. This device supports LTE carrier aggregation in the downlink. All uplink maximum output power with downlink carrier aggregation active does not show more than ¼ dB higher than the maximum output power without downlink carrier aggregation active, therefore SAR evaluation with downlink carrier aggregation active can be excluded.

LTE Carrier Aggregation Conducted Power (Uplink)

2CC Uplink Carrier Aggregation	
Intra CA	TX Ant
CA_2C	Ant 2/8/9
CA_7C	Ant 2/8/9
CA_66C	Ant 2/8/9
CA_38C	Ant 2/8/9
CA_41C	Ant 2/8/9
CA_42C	Ant 4/5/7/11

<Intra-band>

General Note:

- i. The device supports intra-band uplink carrier aggregation for LTE B2/7/66/38/41/42 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. According Nov. 2017 TCB workshop, the output power with uplink CA active was measured for the configuration with the highest reported SAR with single carrier for each exposure condition. The power was measured with wideband signal integration over both component carriers.
- iii. Additional SAR measurement for LTE UL CA with other DL CA combinations active were not required since the maximum output power for this configuration was not > 0.25dB higher than the maximum output power for UL CA active.

<Inter-band uplink carrier aggregation consideration>

2CC Uplink Carrier Aggregation				
LTE Inter CA	LTE TX0	TX0 Ant	LTE TX1	TX1 Ant
CA_12A-66A	12A	Ant 0/1	66A	Ant 2/8/9
CA_2A-12A	2A	Ant 2/8/9	12A	Ant 0/1
CA_2A-4A	2A	Ant 2/9	4A	Ant 8
CA_2A-5A	2A	Ant 2/8/9	5A	Ant 1
CA_2A-66A	2A	Ant 2/9	66A	Ant 8
CA_2A-7A	2A	Ant 2/9	7A	Ant 8
CA_4A-12A	4A	Ant 2/8/9	12A	Ant 0/1
CA_4A-5A	4A	Ant 2/8/9	5A	Ant 0/1
CA_4A-7A	4A	Ant 2/8/9	7A	Ant 2/8/9
CA_5A-66A	5A	Ant 0/1	66A	Ant 2/8/9
CA_5A-7A	5A	Ant 0/1	7A	Ant 2/8/9

General Note:

1. The single carrier of inter band CA uplink power level is the same as Non-CA standalone LTE power level.
2. The product implements MediaTek TA-SAR feature which controls the instantaneous transmitting power for WWAN transmitter to ensure the product in compliance with RF exposure limit over a defined time window, for SAR (transmit frequency $\leq 6\text{GHz}$). To control and manage transmitting power in real time and to ensure at all times the time-averaged RF exposure is compliant to the regulation requirement.
3. For LTE inter-band CA mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure between two LTE bands. TA-SAR algorithm controls the total RF exposure base on LTE inter CA bands to not exceed FCC limit. In Part 1 Report, TA-SAR compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

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

1. 5G NR n2/n5/n7/n26/n66/n38/n41/n77/n78 is SA&NSA mode.
2. 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
3. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
4. For 5G NR, the simultaneous transmission analysis is used standalone SAR at total power level to show compliance.
5. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
6. 5G NR NSA mode, the power level is the same as 5G NR SA mode, so 5G NR NSA mode and SA mode power table only show one time.
7. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
8. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
9. For 5G NR inter-band CA mode, MediaTek TA-SAR Gen2 algorithm in WWAN adds directly the time-averaged RF exposure between two 5G NR bands. MediaTek TA-SAR Gen2 algorithm controls the total RF exposure base on 5G NR inter CA bands to not exceed FCC limit.
10. 5G NR n7/n41/n66/n77/n78 supports UL MIMO mode.

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

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

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

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

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

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

<EN-DC combination>

ENDC	LTE TX	LTE Ant	NR TX	NR Ant
DC_12A_n2A	12A	Ant 0/1	n2	Ant 2/8/9
DC_12A_n41A	12A	Ant 0/1	n41	Ant 2/8/9
DC_12A_n66A	12A	Ant 0/1	n66	Ant 2/8/9
DC_12A_n78A	12A	Ant 0/1	n78	Ant 4/5/7/11
DC_13A_n66A	13A	Ant 0/1	n66	Ant 2/8/9
DC_2A_n38A	2A	Ant 2/9	n38	Ant 8
DC_2A_n41A	2A	Ant 2/9	n41	Ant 8
DC_2A_n5A	2A	Ant 2/8/9	n5	Ant 1
DC_2A_n66A	2A	Ant 2/9	n66	Ant 8
DC_2A_n71A	2A	Ant 2/8/9	n71	Ant 1
DC_2A_n78A	2A	Ant 2/8/9	n78	Ant 4/5/7/11
DC_2A_n7A	2A	Ant 2/9	n7	Ant 8
DC_38A_n78A	38A	Ant 2/8/9	n78	Ant 4/5/7/11
DC_66A_n71A	66A	Ant 2/8/9	n71	Ant 0/1
DC_41A_n78A	41A	Ant 2/8/9	n78	Ant 5/7
DC_4A_n2A	4A	Ant 8	n2	Ant 2/9
DC_4A_n38A	4A	Ant 8	n38	Ant 2/9
DC_4A_n41A	4A	Ant 8	n41	Ant 2/8/9
DC_4A_n78A	4A	Ant 2/8/9	n78	Ant 4/5/7/11
DC_4A_n7A	4A	Ant 2/8/9	n7	Ant 2/8/9
DC_5A_n38A	5A	Ant 0/1	n38	Ant 2/8/9
DC_5A_n41A	5A	Ant 0/1	n41	Ant 2/8/9
DC_5A_n66A	5A	Ant 0/1	n66	Ant 2/8/9
DC_5A_n78A	5A	Ant 0/1	n78	Ant 4/5/7/11
DC_5A_n7A	5A	Ant 0/1	n7	Ant 2/8/9

DC_66A_n2A	66A	Ant 8	n2	Ant 2/9
DC_66A_n38A	66A	Ant 8	n38	Ant 2/9
DC_66A_n41A	66A	Ant 8	n41	Ant 2/8/9
DC_66A_n5A	66A	Ant 2/8/9	n5	Ant 0/1
DC_66A_n78A	66A	Ant 2/8/9	n78	Ant 4/5/7/11
DC_66A_n7A	66A	Ant 2/8/9	n7	Ant 2/8/9
DC_71A_n77A	71A	Ant 0/1	n77	Ant 5/7
DC_71A_n78A	71A	Ant 0/1	n78	Ant 4/11
DC_7A_n2A	7A	Ant 8	n2	Ant 2/9
DC_7A_n5A	7A	Ant 2/8/9	n5	Ant 0/1
DC_7A_n66A	7A	Ant 2/8/9	n66	Ant 2/8/9
DC_7A_n77A	7A	Ant 2/8/9	n77	Ant 4/5/7/11
DC_7A_n78A	7A	Ant 2/8/9	n78	Ant 4/5/7/11
DC_41A_n77A	41A	Ant 2/8/9	n77	Ant 5/7
DC_7A_n26A	7A	Ant 2/8/9	n26	Ant 0/1

Inter-Band CA Configuration:

NR Inter CA	NR TX0	TX0 Ant	NR TX1	TX1 Ant
CA_n26A-n78A	n26	Ant 0/1	n78	Ant 4/5/7/11
CA_n38A-n78A	n38	Ant 2/8/9	n78	Ant 4/5/7/11
CA_n41A-n71A	n41	Ant 2/8/9	n71	Ant 0/1
CA_n41A-n77A	n41	Ant 2/8/9	n77	Ant 4/5/7/11
CA_n41A-n78A	n41	Ant 2/8/9	n78	Ant 4/5/7/11
CA_n5A-n78A	n5	Ant 0/1	n78	Ant 4/5/7/11
CA_n5A-n7A	n5	Ant 0/1	n7	Ant 2/8/9
CA_n71A-n78A	n71	Ant 0/1	n78	Ant 4/5/7/11
CA_n7A-n26A	n7	Ant 2/8/9	n26	Ant 0/1
CA_n7A-n78A	n7	Ant 2/8/9	n78	Ant 4/5/7/11

<NRUL MIMO Bands combination>

ULMIMO mode	NR Ant	
n7	Ant2	Ant8
	Ant9	Ant8
n66	Ant2	Ant8
	Ant9	Ant8
n41	Ant2	Ant8
	Ant9	Ant8
n77	Ant4	Ant7
	Ant4	Ant5
	Ant11	Ant7
	Ant11	Ant5
n78	Ant4	Ant7
	Ant4	Ant5
	Ant11	Ant7
	Ant11	Ant5

<WLAN Conducted Power>

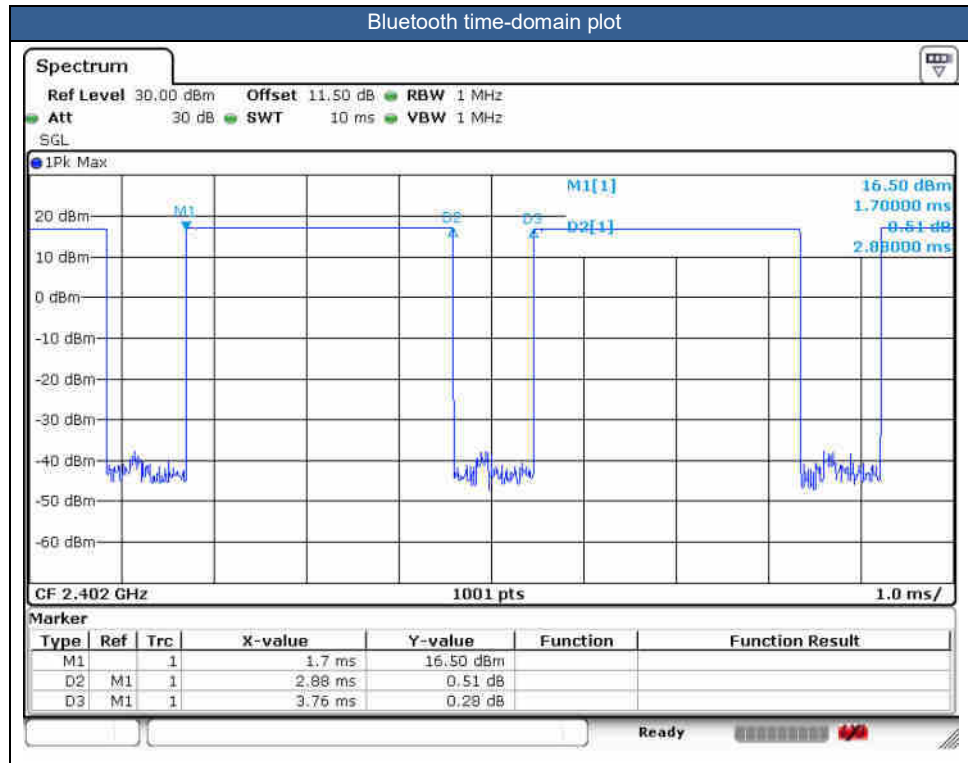
General Note:

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. 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.
7. SISO and MIMO all supported by WLAN5GHz/ WLAN 6GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing.
8. For WLAN2.4GHz, each antenna transmit power in SISO operation is larger than or equal to the power in MIMO operation, RF exposure compliance of MIMO mode can be deduced from the compliance simultaneous transmission of antennas operating in SISO mode. So WLAN SAR testing was performed on SISO antenna, MIMO SAR base on standalone SAR summed together as MIMO SAR.
9. For the conducted power measurement is MIMO chains transmitting simultaneously and measured the separately conducted power for both chains and then based on the conducted power of two antennas respectively to calculate sum of the power for MIMO mode.

<2.4GHz Bluetooth>

General Note:

1. For 2.4GHz Bluetooth SAR testing was selected 1Mbps, due to its highest average power.
2. The Bluetooth duty cycle are 76.6 as following figure, Bluetooth SAR scaling need further consideration and the theoretical duty cycle is 83.3%, therefore the actual duty cycle will be scaled up to the theoretical value of Bluetooth reported SAR calculation.





15. Antenna Location

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

16. 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 WLAN/Bluetooth: 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 ≥ 0.8 W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements the power management, Proximity sensors/receiver detect mechanism/handheld trigger reduced power for the power management for SAR compliance at different exposure conditions (head, body, limbs) and the MediaTek TA-SAR algorithm will manage to ensure the power level not exceeding the associated power table. The device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to appendix E. power table.
5. Per KDB648474 D04v01r03, for smart phones with a display diagonal dimension > 15.0 cm or an overall diagonal dimension > 16.0 cm, when hotspot mode applies, 10-g extremity SAR is required only for the surfaces and edges with hotspot mode 1-g reported SAR > 1.2 W/kg, however, when power reduction applies to hotspot mode the measured SAR must be scaled to the maximum output power, including tolerance, allowed for phablet modes to compare with the 1.2 W/kg SAR test reduction threshold.
 - a. For this device SAR for WWAN transmitter scaled to maximum output power mode for product specific 10g SAR is higher than 1.2W/kg of GSM850/1900, WCDMA Band II/IV, LTE Band 2/4/7/13/25/66/38/41/42, 5GNR n2/n5/n7/n26/n66/n38/n41/n71/n77/n78, WLAN 2.4/5.2/5.8GHz, therefore product specific 10g SAR is necessary.
 - b. WLAN 5.3/5.5GHz/6GHz 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.
6. 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).
7. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
8. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25 mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.
9. For WLAN 6GHz doesn't support wireless router capability.
10. Per FCC guidance, SAR was performed using 6.5 GHz SAR probe calibration factors.
11. 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.
12. Absorbed power density (APD) using a 4cm² 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 $\leq \frac{1}{4}$ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

WCDMA Note:

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

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is $>$ not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 / B71 the maximum bandwidth does not support three non-overlapping channels, per KDB 941225 D05v02r05, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.
7. LTE B2 / B4 / B5 / B17 / 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 $\leq$ the larger band to qualify for the SAR test exclusion
 - b. the channel bandwidth and other operating parameters for the smaller band are fully supported by the larger band

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
 - a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
 - b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
 - c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
 - d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not $\frac{1}{2}$ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
 - e. Smaller bandwidth output power for each RB allocation configuration for this device will not $\frac{1}{2}$ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
 - f. For 5G FR1 n2/n5 /n7/n26/n66/n38/n41/n71/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN/Bluetooth Note:

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

Power Density General Notes:

1. The manufacturer has confirmed that the devices tested have the same physical, mechanical and thermal characteristics and are within operational tolerances expected for production units.
2. Batteries are fully charged at the beginning of the measurements.
3. Absorbed power density (APD) using a 4cm² averaging area is reported based on SAR measurements.
4. Power density was calculated by repeated E-field measurements on two measurement planes separated by $\lambda/4$.
5. The device was configured to transmit continuously at the required data rate, channel bandwidth and signal modulation, using the highest transmission duty factor supported by the test mode tools.
6. Per FCC guidance and equipment manufacturer guidance, power density results were scaled according to IEC 62479:2010 for the portion of the measurement uncertainty > 30%. Total expanded uncertainty of 2.68 dB (85.4%) was used to determine the psPD measurement scaling factor.
7. Per April 2021 TCB Workshop and KDB 388624 D02v18r08, For the highest SAR test configurations also measure incident PD (total) using power-density reconstruction method in 2 mm closest measurement plane.
8. Per October 2020 TCB Workshop, PTP-PR algorithm was used during psPD measurement and calculations.
9. Since this device is considered a phablet and there is no different PD limit on different exposure conditions, therefore select highest phablet SAR at 0 mm test distance and configurations evaluate power density. Since there is no different PD limit on different exposure conditions, therefore the PD test was performed of a 2mm separation between Probe sensor and EUT surface to cover Head exposure conditions (Front) at head power level and other exposure conditions at body power level of Phone respectively
10. The measurement procedure consists of measuring the PD_{inc} at two different distances: 2 mm (compliance distance) and $\lambda/5$. The grid extents should be large enough to fully capture the transmitted energy. The grid step should be fine enough to demonstrate that the integrated Power Density iPD_n fulfill the criterion described below. Since iPD ratio between the two distances is ≥ -1 dB, the grid step (0.0625) was sufficient for determining compliance at d=2mm.

$$10 \cdot \log_{10} \frac{iPD_n(2mm)}{iPD_n(\lambda/5)} \geq -1$$

ECI status description:

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

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

Exposure Condition	ECI	Trigger conditions
Head SAR	ECI2	Earpiece On
Hotspot SAR	ECI7	Hotspot On
Body worn SAR	ECI3	Sensor On
Extremity SAR	ECI6	Sensor On
Body worn/ Extremity SAR	ECI4	Sensor Off



16.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 71	20M	QPSK	1	0		Right Cheek	0mm	Ant 0	ECI 2	133297	680.5	23.02	24.00	1.253		1.000	0.15	0.089	0.112
	LTE Band 71	20M	QPSK	1	0		Right Tilted	0mm	Ant 0	ECI 2	133297	680.5	23.02	24.00	1.253		1.000	-0.06	0.056	0.070
	LTE Band 71	20M	QPSK	1	0		Left Cheek	0mm	Ant 0	ECI 2	133297	680.5	23.02	24.00	1.253		1.000	0.06	0.113	0.142
	LTE Band 71	20M	QPSK	1	0		Left Tilted	0mm	Ant 0	ECI 2	133297	680.5	23.02	24.00	1.253		1.000	0.1	0.053	0.066
	LTE Band 71	20M	QPSK	50	0		Right Cheek	0mm	Ant 0	ECI 2	133297	680.5	22.02	23.00	1.253		1.000	0.11	0.068	0.085
	LTE Band 71	20M	QPSK	50	0		Right Tilted	0mm	Ant 0	ECI 2	133297	680.5	22.02	23.00	1.253		1.000	-0.13	0.048	0.060
	LTE Band 71	20M	QPSK	50	0		Left Cheek	0mm	Ant 0	ECI 2	133297	680.5	22.02	23.00	1.253		1.000	0.04	0.080	0.100
	LTE Band 71	20M	QPSK	50	0		Left Tilted	0mm	Ant 0	ECI 2	133297	680.5	22.02	23.00	1.253		1.000	0.15	0.041	0.051
	LTE Band 71	20M	QPSK	1	0		Right Cheek	0mm	Ant 1	ECI 2	133297	680.5	23.11	24.00	1.227		1.000	0.13	0.242	0.297
	LTE Band 71	20M	QPSK	1	0		Right Tilted	0mm	Ant 1	ECI 2	133297	680.5	23.11	24.00	1.227		1.000	0.03	0.065	0.080
01	LTE Band 71	20M	QPSK	1	0		Left Cheek	0mm	Ant 1	ECI 2	133297	680.5	23.11	24.00	1.227		1.000	-0.03	0.323	0.396
	LTE Band 71	20M	QPSK	1	0		Left Tilted	0mm	Ant 1	ECI 2	133297	680.5	23.11	24.00	1.227		1.000	0.04	0.054	0.066
	LTE Band 71	20M	QPSK	50	0		Right Cheek	0mm	Ant 1	ECI 2	133297	680.5	22.06	23.00	1.242		1.000	-0.13	0.189	0.235
	LTE Band 71	20M	QPSK	50	0		Right Tilted	0mm	Ant 1	ECI 2	133297	680.5	22.06	23.00	1.242		1.000	0.04	0.057	0.071
	LTE Band 71	20M	QPSK	50	0		Left Cheek	0mm	Ant 1	ECI 2	133297	680.5	22.06	23.00	1.242		1.000	-0.13	0.261	0.324
	LTE Band 71	20M	QPSK	50	0		Left Tilted	0mm	Ant 1	ECI 2	133297	680.5	22.06	23.00	1.242		1.000	0.09	0.047	0.058
	LTE Band 12	10M	QPSK	1	0		Right Cheek	0mm	Ant 0	ECI 2	23095	707.5	23.12	24.00	1.225		1.000	-0.12	0.069	0.084
	LTE Band 12	10M	QPSK	1	0		Right Tilted	0mm	Ant 0	ECI 2	23095	707.5	23.12	24.00	1.225		1.000	-0.14	0.053	0.065
	LTE Band 12	10M	QPSK	1	0		Left Cheek	0mm	Ant 0	ECI 2	23095	707.5	23.12	24.00	1.225		1.000	-0.1	0.090	0.110
	LTE Band 12	10M	QPSK	1	0		Left Tilted	0mm	Ant 0	ECI 2	23095	707.5	23.12	24.00	1.225		1.000	0.06	0.050	0.061
	LTE Band 12	10M	QPSK	25	0		Right Cheek	0mm	Ant 0	ECI 2	23095	707.5	22.13	23.00	1.222		1.000	-0.11	0.050	0.061
	LTE Band 12	10M	QPSK	25	0		Right Tilted	0mm	Ant 0	ECI 2	23095	707.5	22.13	23.00	1.222		1.000	0.09	0.041	0.050
	LTE Band 12	10M	QPSK	25	0		Left Cheek	0mm	Ant 0	ECI 2	23095	707.5	22.13	23.00	1.222		1.000	0.13	0.068	0.083
	LTE Band 12	10M	QPSK	25	0		Left Tilted	0mm	Ant 0	ECI 2	23095	707.5	22.13	23.00	1.222		1.000	-0.16	0.039	0.048
	LTE Band 12	10M	QPSK	1	0		Right Cheek	0mm	Ant 1	ECI 2	23095	707.5	22.61	24.00	1.377		1.000	-0.07	0.237	0.326
	LTE Band 12	10M	QPSK	1	0		Right Tilted	0mm	Ant 1	ECI 2	23095	707.5	22.61	24.00	1.377		1.000	-0.04	0.054	0.074
02	LTE Band 12	10M	QPSK	1	0		Left Cheek	0mm	Ant 1	ECI 2	23095	707.5	22.61	24.00	1.377		1.000	-0.05	0.424	0.584
	LTE Band 12	10M	QPSK	1	0		Left Tilted	0mm	Ant 1	ECI 2	23095	707.5	22.61	24.00	1.377		1.000	-0.17	0.064	0.088
	LTE Band 12	10M	QPSK	25	0		Right Cheek	0mm	Ant 1	ECI 2	23095	707.5	21.59	23.00	1.384		1.000	-0.11	0.197	0.273
	LTE Band 12	10M	QPSK	25	0		Right Tilted	0mm	Ant 1	ECI 2	23095	707.5	21.59	23.00	1.384		1.000	0.08	0.046	0.064
	LTE Band 12	10M	QPSK	25	0		Left Cheek	0mm	Ant 1	ECI 2	23095	707.5	21.59	23.00	1.384		1.000	-0.12	0.328	0.454
	LTE Band 12	10M	QPSK	25	0		Left Tilted	0mm	Ant 1	ECI 2	23095	707.5	21.59	23.00	1.384		1.000	-0.14	0.059	0.082
	LTE Band 13	10M	QPSK	1	0		Right Cheek	0mm	Ant 0	ECI 2	23230	782	22.71	24.00	1.346		1.000	-0.15	0.104	0.140
	LTE Band 13	10M	QPSK	1	0		Right Tilted	0mm	Ant 0	ECI 2	23230	782	22.71	24.00	1.346		1.000	0.12	0.070	0.094
	LTE Band 13	10M	QPSK	1	0		Left Cheek	0mm	Ant 0	ECI 2	23230	782	22.71	24.00	1.346		1.000	0.04	0.118	0.159
	LTE Band 13	10M	QPSK	1	0		Left Tilted	0mm	Ant 0	ECI 2	23230	782	22.71	24.00	1.346		1.000	-0.16	0.068	0.092
	LTE Band 13	10M	QPSK	25	0		Right Cheek	0mm	Ant 0	ECI 2	23230	782	21.61	23.00	1.377		1.000	0.17	0.082	0.113
	LTE Band 13	10M	QPSK	25	0		Right Tilted	0mm	Ant 0	ECI 2	23230	782	21.61	23.00	1.377		1.000	0.08	0.053	0.073
	LTE Band 13	10M	QPSK	25	0		Left Cheek	0mm	Ant 0	ECI 2	23230	782	21.61	23.00	1.377		1.000	0.15	0.089	0.123
	LTE Band 13	10M	QPSK	25	0		Left Tilted	0mm	Ant 0	ECI 2	23230	782	21.61	23.00	1.377		1.000	-0.11	0.055	0.076
	LTE Band 13	10M	QPSK	1	0		Right Cheek	0mm	Ant 1	ECI 2	23230	782	22.47	24.00	1.422		1.000	-0.12	0.435	0.619
	LTE Band 13	10M	QPSK	1	0		Right Tilted	0mm	Ant 1	ECI 2	23230	782	22.47	24.00	1.422		1.000	-0.03	0.111	0.158
03	LTE Band 13	10M	QPSK	1	0		Left Cheek	0mm	Ant 1	ECI 2	23230	782	22.47	24.00	1.422		1.000	-0.17	0.586	0.833
	LTE Band 13 Protective Cover	10M	QPSK	1	0		Left Cheek	0mm	Ant 1	ECI 2	23230	782	22.47	24.00	1.422		1.000	0.09	0.486	0.691
	LTE Band 13	10M	QPSK	1	0		Left Tilted	0mm	Ant 1	ECI 2	23230	782	22.47	24.00	1.422		1.000	0.01	0.105	0.149
	LTE Band 13	10M	QPSK	25	0		Right Cheek	0mm	Ant 1	ECI 2	23230	782	21.35	23.00	1.462		1.000	-0.16	0.404	0.591
	LTE Band 13	10M	QPSK	25	0		Right Tilted	0mm	Ant 1	ECI 2	23230	782	21.35	23.00	1.462		1.000	0.08	0.102	0.149
	LTE Band 13	10M	QPSK	25	0		Left Cheek	0mm	Ant 1	ECI 2	23230	782	21.35	23.00	1.462		1.000	-0.16	0.546	0.798
	LTE Band 13	10M	QPSK	25	0		Left Tilted	0mm	Ant 1	ECI 2	23230	782	21.35	23.00	1.462		1.000	-0.13	0.100	0.146



	LTE Band 13	10M	QPSK	50	0		Left Cheek	0mm	Ant 1	ECI 2	23230	782	21.23	23.00	1.503		1.000	0.12	0.524	0.788
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 2	136100	680.5	22.68	24.00	1.355		1.000	0.03	0.071	0.096
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 2	136100	680.5	22.68	24.00	1.355		1.000	0.05	0.051	0.069
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 2	136100	680.5	22.68	24.00	1.355		1.000	0.09	0.113	0.153
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 2	136100	680.5	22.68	24.00	1.355		1.000	0.04	0.048	0.065
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	ECI 2	136100	680.5	22.52	24.00	1.406		1.000	0.12	0.068	0.096
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	ECI 2	136100	680.5	22.52	24.00	1.406		1.000	-0.07	0.050	0.070
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	ECI 2	136100	680.5	22.52	24.00	1.406		1.000	0.11	0.108	0.152
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	ECI 2	136100	680.5	22.52	24.00	1.406		1.000	0	0.043	0.060
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 2	136100	680.5	22.73	24.00	1.340		1.000	-0.12	0.252	0.338
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 2	136100	680.5	22.73	24.00	1.340		1.000	0	0.050	0.067
04	FR1 n71	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 2	136100	680.5	22.73	24.00	1.340		1.000	-0.01	0.317	0.425
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 2	136100	680.5	22.73	24.00	1.340		1.000	0.04	0.054	0.072
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 2	136100	680.5	22.58	24.00	1.387		1.000	-0.06	0.234	0.325
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	ECI 2	136100	680.5	22.58	24.00	1.387		1.000	-0.01	0.046	0.064
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 2	136100	680.5	22.58	24.00	1.387		1.000	-0.11	0.305	0.423
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	ECI 2	136100	680.5	22.58	24.00	1.387		1.000	-0.03	0.051	0.071
835MHz																				
	GSM850					GPRS 4TX Slot	Right Cheek	0mm	Ant 0	ECI 2	189	836.4	28.85	30.50	1.462		1.000	-0.01	0.269	0.393
	GSM850					GPRS 4TX Slot	Right Tilted	0mm	Ant 0	ECI 2	189	836.4	28.85	30.50	1.462		1.000	0.11	0.159	0.232
05	GSM850					GPRS 4TX Slot	Left Cheek	0mm	Ant 0	ECI 2	189	836.4	28.85	30.50	1.462		1.000	-0.05	0.302	0.442
	GSM850					GPRS 4TX Slot	Left Tilted	0mm	Ant 0	ECI 2	189	836.4	28.85	30.50	1.462		1.000	-0.04	0.134	0.196
	WCDMA V					RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 2	4182	836.4	23.11	24.00	1.227		1.000	-0.12	0.195	0.239
	WCDMA V					RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 2	4182	836.4	23.11	24.00	1.227		1.000	-0.11	0.122	0.150
06	WCDMA V					RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 2	4182	836.4	23.11	24.00	1.227		1.000	-0.16	0.203	0.249
	WCDMA V					RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 2	4182	836.4	23.11	24.00	1.227		1.000	0.01	0.094	0.115
	LTE Band 26	15M	QPSK	1	0		Right Cheek	0mm	Ant 0	ECI 2	26865	831.5	22.93	24.00	1.279		1.000	-0.13	0.137	0.175
	LTE Band 26	15M	QPSK	1	0		Right Tilted	0mm	Ant 0	ECI 2	26865	831.5	22.93	24.00	1.279		1.000	-0.09	0.088	0.113
	LTE Band 26	15M	QPSK	1	0		Left Cheek	0mm	Ant 0	ECI 2	26865	831.5	22.93	24.00	1.279		1.000	-0.08	0.147	0.188
	LTE Band 26	15M	QPSK	1	0		Left Tilted	0mm	Ant 0	ECI 2	26865	831.5	22.93	24.00	1.279		1.000	0.11	0.073	0.093
	LTE Band 26	15M	QPSK	36	0		Right Cheek	0mm	Ant 0	ECI 2	26865	831.5	22.04	23.00	1.247		1.000	0.05	0.124	0.155
	LTE Band 26	15M	QPSK	36	0		Right Tilted	0mm	Ant 0	ECI 2	26865	831.5	22.04	23.00	1.247		1.000	0.09	0.071	0.089
	LTE Band 26	15M	QPSK	36	0		Left Cheek	0mm	Ant 0	ECI 2	26865	831.5	22.04	23.00	1.247		1.000	0.11	0.132	0.165
	LTE Band 26	15M	QPSK	36	0		Left Tilted	0mm	Ant 0	ECI 2	26865	831.5	22.04	23.00	1.247		1.000	-0.12	0.062	0.077
	LTE Band 26	15M	QPSK	1	0		Right Cheek	0mm	Ant 1	ECI 2	26865	831.5	22.54	24.00	1.400		1.000	0.03	0.268	0.375
	LTE Band 26	15M	QPSK	1	0		Right Tilted	0mm	Ant 1	ECI 2	26865	831.5	22.54	24.00	1.400		1.000	-0.08	0.077	0.108
07	LTE Band 26	15M	QPSK	1	0		Left Cheek	0mm	Ant 1	ECI 2	26865	831.5	22.54	24.00	1.400		1.000	0.05	0.473	0.662
	LTE Band 26	15M	QPSK	1	0		Left Tilted	0mm	Ant 1	ECI 2	26865	831.5	22.54	24.00	1.400		1.000	0.1	0.079	0.111
	LTE Band 26	15M	QPSK	36	0		Right Cheek	0mm	Ant 1	ECI 2	26865	831.5	21.60	23.00	1.380		1.000	-0.1	0.222	0.306
	LTE Band 26	15M	QPSK	36	0		Right Tilted	0mm	Ant 1	ECI 2	26865	831.5	21.60	23.00	1.380		1.000	-0.01	0.064	0.088
	LTE Band 26	15M	QPSK	36	0		Left Cheek	0mm	Ant 1	ECI 2	26865	831.5	21.60	23.00	1.380		1.000	0.05	0.406	0.560
	LTE Band 26	15M	QPSK	36	0		Left Tilted	0mm	Ant 1	ECI 2	26865	831.5	21.60	23.00	1.380		1.000	-0.07	0.066	0.091
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 2	166300	831.5	22.97	24.00	1.268		1.000	0.08	0.130	0.165
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 2	166300	831.5	22.97	24.00	1.268		1.000	-0.06	0.080	0.101
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 2	166300	831.5	22.97	24.00	1.268		1.000	0.1	0.144	0.183
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 2	166300	831.5	22.97	24.00	1.268		1.000	0.01	0.065	0.082
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	ECI 2	166300	831.5	22.76	24.00	1.330		1.000	0.17	0.124	0.165
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	ECI 2	166300	831.5	22.76	24.00	1.330		1.000	-0.1	0.075	0.100
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	ECI 2	166300	831.5	22.76	24.00	1.330		1.000	0	0.135	0.180
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	ECI 2	166300	831.5	22.76	24.00	1.330		1.000	0.16	0.063	0.084
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 2	166300	831.5	22.79	24.00	1.321		1.000	-0.14	0.190	0.251
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 2	166300	831.5	22.79	24.00	1.321		1.000	0.02	0.049	0.065
08	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 2	166300	831.5	22.79	24.00	1.321		1.000	-0.12	0.376	0.497
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 2	166300	831.5	22.79	24.00	1.321		1.000	0.08	0.055	0.073
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 2	166300	831.5	22.66	24.00	1.361		1.000	-0.07	0.178	0.242



	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	ECI 2	166300	831.5	22.66	24.00	1.361		1.000	-0.11	0.045	0.061
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 2	166300	831.5	22.66	24.00	1.361		1.000	0.14	0.342	0.466
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	ECI 2	166300	831.5	22.66	24.00	1.361		1.000	0.16	0.051	0.069
1750MHz																				
09	WCDMA IV					RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	1413	1732.6	22.13	24.00	1.538		1.000	0.12	0.251	0.386
	WCDMA IV					RMC 12.2Kbps	Right Tilted	0mm	Ant 2	ECI 2	1413	1732.6	22.13	24.00	1.538		1.000	-0.15	0.105	0.162
	WCDMA IV					RMC 12.2Kbps	Left Cheek	0mm	Ant 2	ECI 2	1413	1732.6	22.13	24.00	1.538		1.000	-0.03	0.151	0.232
	WCDMA IV					RMC 12.2Kbps	Left Tilted	0mm	Ant 2	ECI 2	1413	1732.6	22.13	24.00	1.538		1.000	0.16	0.086	0.132
	LTE Band 66	20M	QPSK	1	0		Right Cheek	0mm	Ant 2	ECI 2	132322	1745	23.22	24.00	1.197		1.000	0.11	0.216	0.258
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Cheek	0mm	Ant 2	ECI 2	132322 132520	1745 1764.8	23.15	24.00	1.216		1.000	0.02	0.180	0.219
	LTE Band 66	20M	QPSK	1	0		Right Tilted	0mm	Ant 2	ECI 2	132322	1745	23.22	24.00	1.197		1.000	-0.02	0.090	0.108
	LTE Band 66	20M	QPSK	1	0		Left Cheek	0mm	Ant 2	ECI 2	132322	1745	23.22	24.00	1.197		1.000	0.06	0.055	0.066
	LTE Band 66	20M	QPSK	1	0		Left Tilted	0mm	Ant 2	ECI 2	132322	1745	23.22	24.00	1.197		1.000	0	0.031	0.037
	LTE Band 66	20M	QPSK	50	0		Right Cheek	0mm	Ant 2	ECI 2	132322	1745	22.21	23.00	1.199		1.000	0.17	0.208	0.249
	LTE Band 66	20M	QPSK	50	0		Right Tilted	0mm	Ant 2	ECI 2	132322	1745	22.21	23.00	1.199		1.000	-0.1	0.088	0.106
	LTE Band 66	20M	QPSK	50	0		Left Cheek	0mm	Ant 2	ECI 2	132322	1745	22.21	23.00	1.199		1.000	0.14	0.052	0.062
	LTE Band 66	20M	QPSK	50	0		Left Tilted	0mm	Ant 2	ECI 2	132322	1745	22.21	23.00	1.199		1.000	0.11	0.025	0.030
	LTE Band 66	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	132322	1745	18.82	19.50	1.169		1.000	0.15	0.715	0.836
	LTE Band 66	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	132322	1745	18.82	19.50	1.169		1.000	0.05	0.696	0.814
	LTE Band 66	20M	QPSK	1	0		Left Cheek	0mm	Ant 8	ECI 2	132322	1745	18.82	19.50	1.169		1.000	0.02	0.393	0.460
	LTE Band 66	20M	QPSK	1	0		Left Tilted	0mm	Ant 8	ECI 2	132322	1745	18.82	19.50	1.169		1.000	-0.02	0.499	0.584
10	LTE Band 66	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	132072	1720	18.79	19.50	1.178		1.000	0.13	0.742	0.874
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Cheek	0mm	Ant 8	ECI 2	132322 132520	1745 1764.8	18.59	19.50	1.233		1.000	0.05	0.557	0.687
	LTE Band 66	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	132572	1770	18.76	19.50	1.186		1.000	0.1	0.685	0.812
	LTE Band 66	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	132072	1720	18.79	19.50	1.178		1.000	-0.09	0.658	0.775
	LTE Band 66	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	132572	1770	18.76	19.50	1.186		1.000	0.14	0.623	0.739
	LTE Band 66	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	132322	1745	18.76	19.50	1.186		1.000	-0.04	0.694	0.823
	LTE Band 66	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	132322	1745	18.76	19.50	1.186		1.000	-0.02	0.661	0.784
	LTE Band 66	20M	QPSK	50	0		Left Cheek	0mm	Ant 8	ECI 2	132322	1745	18.76	19.50	1.186		1.000	0.1	0.375	0.445
	LTE Band 66	20M	QPSK	50	0		Left Tilted	0mm	Ant 8	ECI 2	132322	1745	18.76	19.50	1.186		1.000	-0.01	0.482	0.572
	LTE Band 66	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	132072	1720	18.71	19.50	1.199		1.000	0.15	0.715	0.858
	LTE Band 66	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	132572	1770	18.69	19.50	1.205		1.000	0.03	0.661	0.797
	LTE Band 66	20M	QPSK	100	0		Right Cheek	0mm	Ant 8	ECI 2	132322	1745	18.69	19.50	1.205		1.000	-0.14	0.661	0.797
	LTE Band 66	20M	QPSK	100	0		Right Tilted	0mm	Ant 8	ECI 2	132322	1745	18.69	19.50	1.205		1.000	0.05	0.528	0.636
	LTE Band 66	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	132322	1745	23.05	24.00	1.245		1.000	0.05	0.652	0.811
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Cheek	0mm	Ant 9	ECI 2	132322 132520	1745 1764.8	23.00	24.00	1.259		1.000	0.07	0.567	0.714
	LTE Band 66	20M	QPSK	1	0		Right Tilted	0mm	Ant 9	ECI 2	132322	1745	23.05	24.00	1.245		1.000	0.03	0.296	0.368
	LTE Band 66	20M	QPSK	1	0		Left Cheek	0mm	Ant 9	ECI 2	132322	1745	23.05	24.00	1.245		1.000	-0.08	0.154	0.192
	LTE Band 66	20M	QPSK	1	0		Left Tilted	0mm	Ant 9	ECI 2	132322	1745	23.05	24.00	1.245		1.000	0.01	0.102	0.127
	LTE Band 66	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	132072	1720	23.03	24.00	1.250		1.000	0	0.594	0.743
	LTE Band 66	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	132572	1770	23.04	24.00	1.247		1.000	0.04	0.608	0.758
	LTE Band 66	20M	QPSK	50	0		Right Cheek	0mm	Ant 9	ECI 2	132322	1745	22.05	23.00	1.245		1.000	0.09	0.613	0.763
	LTE Band 66	20M	QPSK	50	0		Right Tilted	0mm	Ant 9	ECI 2	132322	1745	22.05	23.00	1.245		1.000	-0.16	0.270	0.336
	LTE Band 66	20M	QPSK	50	0		Left Cheek	0mm	Ant 9	ECI 2	132322	1745	22.05	23.00	1.245		1.000	0.15	0.148	0.184
	LTE Band 66	20M	QPSK	50	0		Left Tilted	0mm	Ant 9	ECI 2	132322	1745	22.05	23.00	1.245		1.000	-0.07	0.091	0.113
	LTE Band 66	20M	QPSK	100	0		Right Cheek	0mm	Ant 9	ECI 2	132322	1745	22.04	23.00	1.247		1.000	0.09	0.606	0.756
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	ECI 2	349000	1745	22.82	24.00	1.312		1.000	0.11	0.119	0.156
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	ECI 2	349000	1745	22.82	24.00	1.312		1.000	0.17	0.069	0.091
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	ECI 2	349000	1745	22.82	24.00	1.312		1.000	-0.14	0.090	0.118
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	ECI 2	349000	1745	22.82	24.00	1.312		1.000	0.11	0.061	0.080
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Cheek	0mm	Ant 2	ECI 2	349000	1745	22.77	24.00	1.327		1.000	-0.04	0.105	0.139
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Tilted	0mm	Ant 2	ECI 2	349000	1745	22.77	24.00	1.327		1.000	0.01	0.062	0.082
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Cheek	0mm	Ant 2	ECI 2	349000	1745	22.77	24.00	1.327		1.000	0.03	0.085	0.113
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Tilted	0mm	Ant 2	ECI 2	349000	1745	22.77	24.00	1.327		1.000	-0.14	0.056	0.074



	FR1 n66	45M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	349000	1745	17.22	18.00	1.197		1.000	-0.15	0.679	0.813
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 8	ECI 2	349000	1745	17.22	18.00	1.197		1.000	-0.05	0.606	0.725
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 8	ECI 2	349000	1745	17.22	18.00	1.197		1.000	0.14	0.382	0.457
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 8	ECI 2	349000	1745	17.22	18.00	1.197		1.000	0.05	0.480	0.574
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	349000	1745	17.18	18.00	1.208		1.000	-0.02	0.652	0.787
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Tilted	0mm	Ant 8	ECI 2	349000	1745	17.18	18.00	1.208		1.000	-0.09	0.621	0.750
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Cheek	0mm	Ant 8	ECI 2	349000	1745	17.18	18.00	1.208		1.000	0.09	0.375	0.453
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Tilted	0mm	Ant 8	ECI 2	349000	1745	17.18	18.00	1.208		1.000	-0.07	0.465	0.562
	FR1 n66	45M	QPSK	240	0	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	349000	1745	17.14	18.00	1.219		1.000	0.04	0.648	0.790
11	FR1 n66	45M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	349000	1745	21.55	22.50	1.245		1.000	-0.07	0.685	0.852
	FR1 n66	45M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 9	ECI 2	349000	1745	21.55	22.50	1.245		1.000	0.16	0.287	0.357
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 9	ECI 2	349000	1745	21.55	22.50	1.245		1.000	0.01	0.168	0.209
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 9	ECI 2	349000	1745	21.55	22.50	1.245		1.000	0.07	0.112	0.139
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	349000	1745	21.47	22.50	1.268		1.000	0.11	0.662	0.839
	FR1 n66	45M	QPSK	120	60	DFT-15	Right Tilted	0mm	Ant 9	ECI 2	349000	1745	21.47	22.50	1.268		1.000	0.06	0.265	0.336
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Cheek	0mm	Ant 9	ECI 2	349000	1745	21.47	22.50	1.268		1.000	0.03	0.152	0.193
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Tilted	0mm	Ant 9	ECI 2	349000	1745	21.47	22.50	1.268		1.000	0.1	0.104	0.132
	FR1 n66	45M	QPSK	240	0	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	349000	1745	21.52	22.50	1.253		1.000	0.17	0.658	0.825
1900MHz																				
12	GSM1900					GPRS 4TX Slot	Right Cheek	0mm	Ant 2	ECI 2	661	1880	25.87	27.00	1.297		1.000	0.1	0.282	0.366
	GSM1900					GPRS 4TX Slot	Right Tilted	0mm	Ant 2	ECI 2	661	1880	25.87	27.00	1.297		1.000	0.08	0.104	0.135
	GSM1900					GPRS 4TX Slot	Left Cheek	0mm	Ant 2	ECI 2	661	1880	25.87	27.00	1.297		1.000	0.17	0.166	0.215
	GSM1900					GPRS 4TX Slot	Left Tilted	0mm	Ant 2	ECI 2	661	1880	25.87	27.00	1.297		1.000	0.1	0.135	0.175
13	WCDMA II					RMC 12.2Kbps	Right Cheek	0mm	Ant 2	ECI 2	9400	1880	22.41	24.00	1.442		1.000	0.11	0.375	0.541
	WCDMA II					RMC 12.2Kbps	Right Tilted	0mm	Ant 2	ECI 2	9400	1880	22.41	24.00	1.442		1.000	0	0.144	0.208
	WCDMA II					RMC 12.2Kbps	Left Cheek	0mm	Ant 2	ECI 2	9400	1880	22.41	24.00	1.442		1.000	0.04	0.211	0.304
	WCDMA II					RMC 12.2Kbps	Left Tilted	0mm	Ant 2	ECI 2	9400	1880	22.41	24.00	1.442		1.000	0.15	0.177	0.255
	LTE Band 25	20M	QPSK	1	0		Right Cheek	0mm	Ant 2	ECI 2	26340	1880	23.19	24.00	1.205		1.000	0.09	0.067	0.081
	LTE Band 2C	20M	QPSK	PCC:1 : 0	SCC:0 : 0		Right Cheek	0mm	Ant 2	ECI 2	18900 19098	1880 1899.8	23.03	24.00	1.250		1.000	0.01	0.042	0.053
	LTE Band 25	20M	QPSK	1	0		Right Tilted	0mm	Ant 2	ECI 2	26340	1880	23.19	24.00	1.205		1.000	0.03	0.043	0.052
	LTE Band 25	20M	QPSK	1	0		Left Cheek	0mm	Ant 2	ECI 2	26340	1880	23.19	24.00	1.205		1.000	-0.04	0.057	0.069
	LTE Band 25	20M	QPSK	1	0		Left Tilted	0mm	Ant 2	ECI 2	26340	1880	23.19	24.00	1.205		1.000	0.08	0.048	0.058
	LTE Band 25	20M	QPSK	50	0		Right Cheek	0mm	Ant 2	ECI 2	26340	1880	22.15	23.00	1.216		1.000	0.01	0.057	0.069
	LTE Band 25	20M	QPSK	50	0		Right Tilted	0mm	Ant 2	ECI 2	26340	1880	22.15	23.00	1.216		1.000	0.06	0.031	0.038
	LTE Band 25	20M	QPSK	50	0		Left Cheek	0mm	Ant 2	ECI 2	26340	1880	22.15	23.00	1.216		1.000	0.03	0.045	0.055
	LTE Band 25	20M	QPSK	50	0		Left Tilted	0mm	Ant 2	ECI 2	26340	1880	22.15	23.00	1.216		1.000	-0.17	0.039	0.047
	LTE Band 25	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	26340	1880	18.98	19.50	1.127		1.000	-0.03	0.728	0.821
	LTE Band 25	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	26340	1880	18.98	19.50	1.127		1.000	0.1	0.711	0.801
	LTE Band 25	20M	QPSK	1	0		Left Cheek	0mm	Ant 8	ECI 2	26340	1880	18.98	19.50	1.127		1.000	0.07	0.352	0.397
	LTE Band 25	20M	QPSK	1	0		Left Tilted	0mm	Ant 8	ECI 2	26340	1880	18.98	19.50	1.127		1.000	-0.13	0.427	0.481
	LTE Band 25	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	26140	1860	18.83	19.50	1.167		1.000	0.08	0.666	0.777
14	LTE Band 25	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	26590	1905	18.87	19.50	1.156		1.000	-0.12	0.764	0.883
	LTE Band 2C	20M	QPSK	PCC:1 : 0	SCC:0 : 0		Right Cheek	0mm	Ant 8	ECI 2	18900 19098	1880 1899.8	18.63	19.50	1.222		1.000	0.03	0.606	0.740
	LTE Band 25	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	26140	1860	18.83	19.50	1.167		1.000	-0.09	0.629	0.734
	LTE Band 25	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	26590	1905	18.87	19.50	1.156		1.000	0.09	0.728	0.842
	LTE Band 25	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	26340	1880	18.95	19.50	1.135		1.000	0.11	0.709	0.805
	LTE Band 25	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	26340	1880	18.95	19.50	1.135		1.000	0	0.682	0.774
	LTE Band 25	20M	QPSK	50	0		Left Cheek	0mm	Ant 8	ECI 2	26340	1880	18.95	19.50	1.135		1.000	-0.09	0.325	0.369
	LTE Band 25	20M	QPSK	50	0		Left Tilted	0mm	Ant 8	ECI 2	26340	1880	18.95	19.50	1.135		1.000	0.11	0.389	0.442
	LTE Band 25	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	26140	1860	18.80	19.50	1.175		1.000	-0.03	0.642	0.754
	LTE Band 25	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	26590	1905	18.81	19.50	1.172		1.000	0.12	0.718	0.842
	LTE Band 25	20M	QPSK	100	0		Right Cheek	0mm	Ant 8	ECI 2	26340	1880	18.81	19.50	1.172		1.000	0.04	0.689	0.808
	LTE Band 25	20M	QPSK	100	0		Right Tilted	0mm	Ant 8	ECI 2	26340	1880	18.81	19.50	1.172		1.000	0.12	0.658	0.771
	LTE Band 25	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	26340	1880	20.86	21.50	1.159		1.000	0.1	0.760	0.881



	LTE Band 2C	20M	QPSK	PCC:1 : 0 SCC:0 : 0		Right Cheek	0mm	Ant 9	ECI 2	18900 19098	1880 1899.8	20.53	21.50	1.250		1.000	0.03	0.688	0.860
	LTE Band 25	20M	QPSK	1 0		Right Tilted	0mm	Ant 9	ECI 2	26340	1880	20.86	21.50	1.159		1.000	-0.04	0.352	0.408
	LTE Band 25	20M	QPSK	1 0		Left Cheek	0mm	Ant 9	ECI 2	26340	1880	20.86	21.50	1.159		1.000	-0.01	0.199	0.231
	LTE Band 25	20M	QPSK	1 0		Left Tilted	0mm	Ant 9	ECI 2	26340	1880	20.86	21.50	1.159		1.000	-0.15	0.145	0.168
	LTE Band 25	20M	QPSK	1 0		Right Cheek	0mm	Ant 9	ECI 2	26140	1860	20.60	21.50	1.230		1.000	0.08	0.635	0.781
	LTE Band 25	20M	QPSK	1 0		Right Cheek	0mm	Ant 9	ECI 2	26590	1905	20.59	21.50	1.233		1.000	-0.15	0.681	0.840
	LTE Band 25	20M	QPSK	50 0		Right Cheek	0mm	Ant 9	ECI 2	26340	1880	20.68	21.50	1.208		1.000	-0.1	0.721	0.871
	LTE Band 25	20M	QPSK	50 0		Right Tilted	0mm	Ant 9	ECI 2	26340	1880	20.68	21.50	1.208		1.000	0.04	0.332	0.401
	LTE Band 25	20M	QPSK	50 0		Left Cheek	0mm	Ant 9	ECI 2	26340	1880	20.68	21.50	1.208		1.000	0.12	0.185	0.223
	LTE Band 25	20M	QPSK	50 0		Left Tilted	0mm	Ant 9	ECI 2	26340	1880	20.68	21.50	1.208		1.000	-0.05	0.137	0.165
	LTE Band 25	20M	QPSK	50 0		Right Cheek	0mm	Ant 9	ECI 2	26340	1880	20.55	21.50	1.245		1.000	-0.15	0.626	0.779
	LTE Band 25	20M	QPSK	50 0		Right Cheek	0mm	Ant 9	ECI 2	26340	1880	20.61	21.50	1.227		1.000	0.16	0.667	0.819
	LTE Band 25	20M	QPSK	100 0		Right Cheek	0mm	Ant 9	ECI 2	26340	1880	20.65	21.50	1.216		1.000	0.02	0.704	0.856
	FR1 n2	40M	QPSK	1 1	DFT-15	Right Cheek	0mm	Ant 2	ECI 2	376000	1880	22.99	24.00	1.262		1.000	0.16	0.171	0.216
	FR1 n2	40M	QPSK	1 1	DFT-15	Right Tilted	0mm	Ant 2	ECI 2	376000	1880	22.99	24.00	1.262		1.000	0.15	0.099	0.125
	FR1 n2	40M	QPSK	1 1	DFT-15	Left Cheek	0mm	Ant 2	ECI 2	376000	1880	22.99	24.00	1.262		1.000	-0.09	0.129	0.163
	FR1 n2	40M	QPSK	1 1	DFT-15	Left Tilted	0mm	Ant 2	ECI 2	376000	1880	22.99	24.00	1.262		1.000	-0.03	0.103	0.130
	FR1 n2	40M	QPSK	108 54	DFT-15	Right Cheek	0mm	Ant 2	ECI 2	376000	1880	22.87	24.00	1.297		1.000	-0.16	0.167	0.217
	FR1 n2	40M	QPSK	108 54	DFT-15	Right Tilted	0mm	Ant 2	ECI 2	376000	1880	22.87	24.00	1.297		1.000	0.02	0.085	0.110
	FR1 n2	40M	QPSK	108 54	DFT-15	Left Cheek	0mm	Ant 2	ECI 2	376000	1880	22.87	24.00	1.297		1.000	0.15	0.118	0.153
	FR1 n2	40M	QPSK	108 54	DFT-15	Left Tilted	0mm	Ant 2	ECI 2	376000	1880	22.87	24.00	1.297		1.000	-0.1	0.097	0.126
15	FR1 n2	40M	QPSK	1 1	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	376000	1880	17.76	18.50	1.186		1.000	-0.12	0.728	0.863
	FR1 n2	40M	QPSK	1 1	DFT-15	Right Tilted	0mm	Ant 8	ECI 2	376000	1880	17.76	18.50	1.186		1.000	-0.01	0.652	0.773
	FR1 n2	40M	QPSK	1 1	DFT-15	Left Cheek	0mm	Ant 8	ECI 2	376000	1880	17.76	18.50	1.186		1.000	0.17	0.411	0.487
	FR1 n2	40M	QPSK	1 1	DFT-15	Left Tilted	0mm	Ant 8	ECI 2	376000	1880	17.76	18.50	1.186		1.000	0.05	0.440	0.522
	FR1 n2	40M	QPSK	108 54	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	376000	1880	17.72	18.50	1.197		1.000	0.03	0.695	0.832
	FR1 n2	40M	QPSK	108 54	DFT-15	Right Tilted	0mm	Ant 8	ECI 2	376000	1880	17.72	18.50	1.197		1.000	0.01	0.619	0.741
	FR1 n2	40M	QPSK	108 54	DFT-15	Left Cheek	0mm	Ant 8	ECI 2	376000	1880	17.72	18.50	1.197		1.000	-0.05	0.384	0.460
	FR1 n2	40M	QPSK	108 54	DFT-15	Left Tilted	0mm	Ant 8	ECI 2	376000	1880	17.72	18.50	1.197		1.000	-0.08	0.421	0.504
	FR1 n2	40M	QPSK	216 0	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	376000	1880	17.66	18.50	1.213		1.000	0.05	0.658	0.798
	FR1 n2	40M	QPSK	1 1	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	376000	1880	18.73	19.50	1.194		1.000	-0.12	0.689	0.823
	FR1 n2	40M	QPSK	1 1	DFT-15	Right Tilted	0mm	Ant 9	ECI 2	376000	1880	18.73	19.50	1.194		1.000	0.13	0.292	0.349
	FR1 n2	40M	QPSK	1 1	DFT-15	Left Cheek	0mm	Ant 9	ECI 2	376000	1880	18.73	19.50	1.194		1.000	0.1	0.163	0.195
	FR1 n2	40M	QPSK	1 1	DFT-15	Left Tilted	0mm	Ant 9	ECI 2	376000	1880	18.73	19.50	1.194		1.000	0.14	0.104	0.124
	FR1 n2	40M	QPSK	108 54	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	376000	1880	18.68	19.50	1.208		1.000	0.13	0.675	0.815
	FR1 n2	40M	QPSK	108 54	DFT-15	Right Tilted	0mm	Ant 9	ECI 2	376000	1880	18.68	19.50	1.208		1.000	0.09	0.284	0.343
	FR1 n2	40M	QPSK	108 54	DFT-15	Left Cheek	0mm	Ant 9	ECI 2	376000	1880	18.68	19.50	1.208		1.000	0.1	0.154	0.186
	FR1 n2	40M	QPSK	108 54	DFT-15	Left Tilted	0mm	Ant 9	ECI 2	376000	1880	18.68	19.50	1.208		1.000	0.02	0.097	0.117
	FR1 n2	40M	QPSK	216 0	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	376000	1880	18.64	19.50	1.219		1.000	-0.02	0.653	0.796
2600MHz																			
	LTE Band 7	20M	QPSK	1 0		Right Cheek	0mm	Ant 2	ECI 2	21100	2535	23.25	24.00	1.189		1.000	0.13	0.052	0.062
	LTE Band 7	20M	QPSK	1 0		Right Tilted	0mm	Ant 2	ECI 2	21100	2535	23.25	24.00	1.189		1.000	0.02	0.031	0.037
	LTE Band 7	20M	QPSK	1 0		Left Cheek	0mm	Ant 2	ECI 2	21100	2535	23.25	24.00	1.189		1.000	0.08	0.082	0.097
	LTE Band 7C	20M	QPSK	PCC:1 : 0 SCC:0 : 0		Left Cheek	0mm	Ant 2	ECI 2	21100 21298	2535 2554.8	23.18	24.00	1.208		1.000	0.03	0.052	0.063
	LTE Band 7	20M	QPSK	1 0		Left Tilted	0mm	Ant 2	ECI 2	21100	2535	23.25	24.00	1.189		1.000	0.09	0.011	0.013
	LTE Band 7	20M	QPSK	50 0		Right Cheek	0mm	Ant 2	ECI 2	21100	2535	22.28	23.00	1.180		1.000	-0.03	0.041	0.048
	LTE Band 7	20M	QPSK	50 0		Right Tilted	0mm	Ant 2	ECI 2	21100	2535	22.28	23.00	1.180		1.000	-0.03	0.022	0.026
	LTE Band 7	20M	QPSK	50 0		Left Cheek	0mm	Ant 2	ECI 2	21100	2535	22.28	23.00	1.180		1.000	0.1	0.071	0.084
	LTE Band 7	20M	QPSK	50 0		Left Tilted	0mm	Ant 2	ECI 2	21100	2535	22.28	23.00	1.180		1.000	-0.15	0.008	0.009
	LTE Band 7	20M	QPSK	1 0		Right Cheek	0mm	Ant 8	ECI 2	21100	2535	17.72	18.50	1.197		1.000	-0.14	0.517	0.619
	LTE Band 7	20M	QPSK	1 0		Right Tilted	0mm	Ant 8	ECI 2	21100	2535	17.72	18.50	1.197		1.000	0.02	0.653	0.781
	LTE Band 7C	20M	QPSK	PCC:1 : 0 SCC:0 : 0		Right Tilted	0mm	Ant 8	ECI 2	21100 21298	2535 2554.8	17.61	18.50	1.227		1.000	0.12	0.558	0.685
	LTE Band 7	20M	QPSK	1 0		Left Cheek	0mm	Ant 8	ECI 2	21100	2535	17.72	18.50	1.197		1.000	-0.04	0.390	0.467
	LTE Band 7	20M	QPSK	1 0		Left Tilted	0mm	Ant 8	ECI 2	21100	2535	17.72	18.50	1.197		1.000	0.06	0.459	0.549



	LTE Band 7	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	21100	2535	17.66	18.50	1.213		1.000	-0.01	0.489	0.593
	LTE Band 7	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	21100	2535	17.66	18.50	1.213		1.000	0.12	0.635	0.771
	LTE Band 7	20M	QPSK	50	0		Left Cheek	0mm	Ant 8	ECI 2	21100	2535	17.66	18.50	1.213		1.000	-0.12	0.375	0.455
	LTE Band 7	20M	QPSK	50	0		Left Tilted	0mm	Ant 8	ECI 2	21100	2535	17.66	18.50	1.213		1.000	0.01	0.446	0.541
	LTE Band 7	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	21100	2535	20.72	21.50	1.197		1.000	0.1	0.673	0.805
	LTE Band 7	20M	QPSK	1	0		Right Tilted	0mm	Ant 9	ECI 2	21100	2535	20.72	21.50	1.197		1.000	-0.09	0.305	0.365
	LTE Band 7	20M	QPSK	1	0		Left Cheek	0mm	Ant 9	ECI 2	21100	2535	20.72	21.50	1.197		1.000	-0.07	0.141	0.169
	LTE Band 7	20M	QPSK	1	0		Left Tilted	0mm	Ant 9	ECI 2	21100	2535	20.72	21.50	1.197		1.000	0.07	0.120	0.144
	LTE Band 7	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	20850	2510	20.64	21.50	1.219		1.000	0.13	0.633	0.772
16	LTE Band 7	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	21350	2560	20.55	21.50	1.245		1.000	-0.11	0.675	0.840
	LTE Band 7C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Cheek	0mm	Ant 9	ECI 2	21100 21298	2535 2554.8	20.68	21.50	1.208		1.000	0.06	0.515	0.622
	LTE Band 7	20M	QPSK	50	0		Right Cheek	0mm	Ant 9	ECI 2	21100	2535	20.66	21.50	1.213		1.000	0.09	0.653	0.792
	LTE Band 7	20M	QPSK	50	0		Right Tilted	0mm	Ant 9	ECI 2	21100	2535	20.66	21.50	1.213		1.000	0.13	0.289	0.351
	LTE Band 7	20M	QPSK	50	0		Left Cheek	0mm	Ant 9	ECI 2	21100	2535	20.66	21.50	1.213		1.000	-0.14	0.131	0.159
	LTE Band 7	20M	QPSK	50	0		Left Tilted	0mm	Ant 9	ECI 2	21100	2535	20.66	21.50	1.213		1.000	0.07	0.114	0.138
	LTE Band 7	20M	QPSK	100	0		Right Cheek	0mm	Ant 9	ECI 2	21100	2535	20.60	21.50	1.230		1.000	-0.1	0.658	0.810
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 2	ECI 2	40620	2593	23.41	24.00	1.146	62.9	1.006	0.09	0.127	0.146
	LTE Band 41	20M	QPSK	1	0		Right Tilted	0mm	Ant 2	ECI 2	40620	2593	23.41	24.00	1.146	62.9	1.006	-0.09	0.079	0.091
	LTE Band 41	20M	QPSK	1	0		Left Cheek	0mm	Ant 2	ECI 2	40620	2593	23.41	24.00	1.146	62.9	1.006	0.06	0.151	0.174
	LTE Band 41 PC2	20M	QPSK	1	0		Left Cheek	0mm	Ant 2	ECI 2	40620	2593	26.22	27.00	1.197	42.9	1.009	0.09	0.181	0.219
	LTE Band 41C PC2	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Left Cheek	0mm	Ant 2	ECI 2	40620 40818	2593 2612.8	26.12	27.00	1.225	42.9	1.009	0.05	0.148	0.183
	LTE Band 41	20M	QPSK	1	0		Left Tilted	0mm	Ant 2	ECI 2	40620	2593	23.41	24.00	1.146	62.9	1.006	-0.15	0.068	0.078
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 2	ECI 2	40620	2593	22.33	23.00	1.167	62.9	1.006	0.16	0.100	0.117
	LTE Band 41	20M	QPSK	50	0		Right Tilted	0mm	Ant 2	ECI 2	40620	2593	22.33	23.00	1.167	62.9	1.006	-0.11	0.038	0.045
	LTE Band 41	20M	QPSK	50	0		Left Cheek	0mm	Ant 2	ECI 2	40620	2593	22.33	23.00	1.167	62.9	1.006	0.14	0.145	0.170
	LTE Band 41	20M	QPSK	50	0		Left Tilted	0mm	Ant 2	ECI 2	40620	2593	22.33	23.00	1.167	62.9	1.006	0.13	0.067	0.079
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	40620	2593	19.24	20.00	1.191	62.9	1.006	-0.16	0.576	0.690
	LTE Band 41	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	40620	2593	19.24	20.00	1.191	62.9	1.006	0.08	0.712	0.853
17	LTE Band 41 PC2	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	40620	2593	20.79	21.60	1.205	42.9	1.009	0.13	0.726	0.883
	LTE Band 41C PC2	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Tilted	0mm	Ant 8	ECI 2	40620 40818	2593 2612.8	20.51	21.60	1.285	42.9	1.009	0.06	0.522	0.677
	LTE Band 41	20M	QPSK	1	0		Left Cheek	0mm	Ant 8	ECI 2	40620	2593	19.24	20.00	1.191	62.9	1.006	-0.05	0.443	0.531
	LTE Band 41	20M	QPSK	1	0		Left Tilted	0mm	Ant 8	ECI 2	40620	2593	19.24	20.00	1.191	62.9	1.006	-0.01	0.492	0.590
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	39750	2506	19.18	20.00	1.208	62.9	1.006	0.15	0.481	0.584
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	40185	2549.5	18.99	20.00	1.262	62.9	1.006	0.15	0.497	0.631
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	41055	2636.5	19.00	20.00	1.259	62.9	1.006	0.03	0.506	0.641
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 8	ECI 2	41490	2680	19.10	20.00	1.230	62.9	1.006	-0.1	0.488	0.604
	LTE Band 41	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	39750	2506	19.18	20.00	1.208	62.9	1.006	0.09	0.601	0.730
	LTE Band 41	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	40185	2549.5	18.99	20.00	1.262	62.9	1.006	-0.14	0.611	0.776
	LTE Band 41	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	41055	2636.5	19.00	20.00	1.259	62.9	1.006	0.09	0.625	0.792
	LTE Band 41	20M	QPSK	1	0		Right Tilted	0mm	Ant 8	ECI 2	41490	2680	19.10	20.00	1.230	62.9	1.006	0.09	0.598	0.740
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	40620	2593	18.97	20.00	1.268	62.9	1.006	0.03	0.525	0.670
	LTE Band 41	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	40620	2593	18.97	20.00	1.268	62.9	1.006	0	0.655	0.835
	LTE Band 41	20M	QPSK	50	0		Left Cheek	0mm	Ant 8	ECI 2	40620	2593	18.97	20.00	1.268	62.9	1.006	-0.14	0.425	0.542
	LTE Band 41	20M	QPSK	50	0		Left Tilted	0mm	Ant 8	ECI 2	40620	2593	18.97	20.00	1.268	62.9	1.006	0	0.462	0.589
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	39750	2506	18.96	20.00	1.271	62.9	1.006	-0.08	0.458	0.585
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	40185	2549.5	18.89	20.00	1.291	62.9	1.006	-0.1	0.481	0.625
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	41055	2636.5	18.93	20.00	1.279	62.9	1.006	0.15	0.476	0.613
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 8	ECI 2	41490	2680	18.81	20.00	1.315	62.9	1.006	-0.06	0.467	0.618
	LTE Band 41	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	39750	2506	18.96	20.00	1.271	62.9	1.006	0.04	0.557	0.712
	LTE Band 41	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	40185	2549.5	18.89	20.00	1.291	62.9	1.006	-0.02	0.582	0.756
	LTE Band 41	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	41055	2636.5	18.93	20.00	1.279	62.9	1.006	0.16	0.594	0.765
	LTE Band 41	20M	QPSK	50	0		Right Tilted	0mm	Ant 8	ECI 2	41490	2680	18.81	20.00	1.315	62.9	1.006	0.06	0.577	0.763
	LTE Band 41	20M	QPSK	100	0		Right Cheek	0mm	Ant 8	ECI 2	40620	2593	18.89	20.00	1.291	62.9	1.006	-0.07	0.533	0.692



	LTE Band 41	20M	QPSK	100	0		Right Tilted	0mm	Ant 8	ECI 2	40620	2593	18.89	20.00	1.291	62.9	1.006	0.05	0.648	0.842
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	40620	2593	21.90	22.50	1.148	62.9	1.006	-0.15	0.644	0.744
	LTE Band 41	20M	QPSK	1	0		Right Tilted	0mm	Ant 9	ECI 2	40620	2593	21.90	22.50	1.148	62.9	1.006	-0.06	0.337	0.389
	LTE Band 41	20M	QPSK	1	0		Left Cheek	0mm	Ant 9	ECI 2	40620	2593	21.90	22.50	1.148	62.9	1.006	-0.17	0.138	0.159
	LTE Band 41	20M	QPSK	1	0		Left Tilted	0mm	Ant 9	ECI 2	40620	2593	21.90	22.50	1.148	62.9	1.006	-0.09	0.127	0.147
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	39750	2506	21.65	22.50	1.216	62.9	1.006	-0.09	0.468	0.573
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	40185	2549.5	21.81	22.50	1.172	62.9	1.006	0.08	0.526	0.620
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	41055	2636.5	21.87	22.50	1.156	62.9	1.006	-0.11	0.682	0.793
	LTE Band 41	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	41490	2680	21.69	22.50	1.205	62.9	1.006	-0.17	0.707	0.857
	LTE Band 41C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Cheek	0mm	Ant 9	ECI 2	40620 40818	2593 2612.8	21.55	22.50	1.245	62.9	1.006	0.06	0.498	0.623
	LTE Band 41 PC2	20M	QPSK	1	0		Right Cheek	0mm	Ant 9	ECI 2	41490	2680	23.31	24.10	1.199	42.9	1.009	-0.04	0.667	0.807
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 9	ECI 2	40620	2593	21.87	22.50	1.156	62.9	1.006	0	0.632	0.735
	LTE Band 41	20M	QPSK	50	0		Right Tilted	0mm	Ant 9	ECI 2	40620	2593	21.87	22.50	1.156	62.9	1.006	0.09	0.318	0.370
	LTE Band 41	20M	QPSK	50	0		Left Cheek	0mm	Ant 9	ECI 2	40620	2593	21.87	22.50	1.156	62.9	1.006	-0.11	0.124	0.144
	LTE Band 41	20M	QPSK	50	0		Left Tilted	0mm	Ant 9	ECI 2	40620	2593	21.87	22.50	1.156	62.9	1.006	0.03	0.117	0.136
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 9	ECI 2	39750	2506	21.58	22.50	1.236	62.9	1.006	0.07	0.457	0.568
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 9	ECI 2	40185	2549.5	21.60	22.50	1.230	62.9	1.006	0.02	0.506	0.626
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 9	ECI 2	41055	2636.5	21.85	22.50	1.161	62.9	1.006	-0.14	0.654	0.764
	LTE Band 41	20M	QPSK	50	0		Right Cheek	0mm	Ant 9	ECI 2	41490	2680	21.54	22.50	1.247	62.9	1.006	-0.14	0.676	0.848
	LTE Band 41	20M	QPSK	100	0		Right Cheek	0mm	Ant 9	ECI 2	40620	2593	21.76	22.50	1.186	62.9	1.006	-0.07	0.618	0.737
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 2	ECI 2	507000	2535	22.96	24.00	1.271		1.000	-0.07	0.124	0.158
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 2	ECI 2	507000	2535	22.96	24.00	1.271		1.000	0.16	0.059	0.075
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 2	ECI 2	507000	2535	22.96	24.00	1.271		1.000	0.07	0.196	0.249
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 2	ECI 2	507000	2535	22.96	24.00	1.271		1.000	0.15	0.082	0.104
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 2	ECI 2	507000	2535	22.85	24.00	1.303		1.000	-0.12	0.121	0.158
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 2	ECI 2	507000	2535	22.85	24.00	1.303		1.000	0.04	0.057	0.074
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 2	ECI 2	507000	2535	22.85	24.00	1.303		1.000	0.1	0.185	0.241
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 2	ECI 2	507000	2535	22.85	24.00	1.303		1.000	-0.03	0.076	0.099
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	507000	2535	16.18	17.00	1.208		1.000	0.15	0.616	0.744
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 8	ECI 2	507000	2535	16.18	17.00	1.208		1.000	0.02	0.676	0.816
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 8	ECI 2	507000	2535	16.18	17.00	1.208		1.000	-0.1	0.494	0.597
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 8	ECI 2	507000	2535	16.18	17.00	1.208		1.000	-0.11	0.487	0.588
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 8	ECI 2	507000	2535	16.16	17.00	1.213		1.000	-0.11	0.602	0.730
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 8	ECI 2	507000	2535	16.16	17.00	1.213		1.000	0.11	0.663	0.804
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 8	ECI 2	507000	2535	16.16	17.00	1.213		1.000	0.08	0.485	0.588
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 8	ECI 2	507000	2535	16.16	17.00	1.213		1.000	0.13	0.473	0.574
	FR1 n7	50M	QPSK	270	0	DFT-15	Left Tilted	0mm	Ant 8	ECI 2	507000	2535	16.12	17.00	1.225		1.000	-0.03	0.588	0.720
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	507000	2535	19.99	21.00	1.262		1.000	0.06	0.642	0.810
	FR1 n7	50M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 9	ECI 2	507000	2535	19.99	21.00	1.262		1.000	0.15	0.345	0.435
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 9	ECI 2	507000	2535	19.99	21.00	1.262		1.000	0.11	0.142	0.179
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 9	ECI 2	507000	2535	19.99	21.00	1.262		1.000	-0.01	0.133	0.168
18	FR1 n7	50M	QPSK	135	68	DFT-15	Right Cheek	0mm	Ant 9	ECI 2	507000	2535	19.96	21.00	1.271		1.000	-0.02	0.648	0.823
	FR1 n7	50M	QPSK	135	68	DFT-15	Right Tilted	0mm	Ant 9	ECI 2	507000	2535	19.96	21.00	1.271		1.000	0.16	0.360	0.457
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Cheek	0mm	Ant 9	ECI 2	507000	2535	19.96	21.00	1.271		1.000	-0.14	0.155	0.197
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Tilted	0mm	Ant 9	ECI 2	507000	2535	19.96	21.00	1.271		1.000	-0.15	0.143	0.182
	FR1 n7	50M	QPSK	270	0	DFT-15	Left Tilted	0mm	Ant 9	ECI 2	507000	2535	19.88	21.00	1.294		1.000	-0.02	0.622	0.805
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 2	ECI 2	518598	2592.99	25.94	27.00	1.276		1.000	-0.14	0.276	0.352
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 2	ECI 2	518598	2592.99	25.94	27.00	1.276		1.000	-0.03	0.150	0.191
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 2	ECI 2	518598	2592.99	25.94	27.00	1.276		1.000	0.16	0.433	0.553
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 2	ECI 2	518598	2592.99	25.94	27.00	1.276		1.000	0.01	0.190	0.243
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 2	ECI 2	518598	2592.99	25.85	27.00	1.303		1.000	-0.12	0.268	0.349
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 2	ECI 2	518598	2592.99	25.85	27.00	1.303		1.000	0.17	0.142	0.185
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 2	ECI 2	518598	2592.99	25.85	27.00	1.303		1.000	-0.08	0.425	0.554
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 2	ECI 2	518598	2592.99	25.85	27.00	1.303		1.000	0.08	0.185	0.241



	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 2	518598	2592.99	17.54	18.50	1.247		1.000	-0.1	0.608	0.758
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 2	518598	2592.99	17.54	18.50	1.247		1.000	0.02	0.651	0.812
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 2	518598	2592.99	17.54	18.50	1.247		1.000	0.16	0.532	0.664
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 2	518598	2592.99	17.54	18.50	1.247		1.000	0.1	0.528	0.659
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 2	518598	2592.99	17.46	18.50	1.271		1.000	-0.13	0.588	0.747
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 2	518598	2592.99	17.46	18.50	1.271		1.000	-0.17	0.645	0.820
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 2	518598	2592.99	17.46	18.50	1.271		1.000	-0.02	0.521	0.662
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 2	518598	2592.99	17.46	18.50	1.271		1.000	-0.01	0.517	0.657
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 8	ECI 2	518598	2592.99	17.43	18.50	1.279		1.000	0.07	0.574	0.734
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 8	ECI 2	518598	2592.99	17.43	18.50	1.279		1.000	-0.08	0.633	0.810
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 8	ECI 2	518598	2592.99	17.43	18.50	1.279		1.000	0.05	0.502	0.642
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 8	ECI 2	518598	2592.99	17.43	18.50	1.279		1.000	0.04	0.489	0.626
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 2	518598	2592.99	19.75	20.50	1.189		1.000	-0.09	0.658	0.782
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 2	518598	2592.99	19.75	20.50	1.189		1.000	0.07	0.316	0.376
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 2	518598	2592.99	19.75	20.50	1.189		1.000	0.14	0.140	0.166
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 2	518598	2592.99	19.75	20.50	1.189		1.000	-0.15	0.130	0.155
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 2	518598	2592.99	19.73	20.50	1.194		1.000	0.16	0.699	0.835
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 2	518598	2592.99	19.73	20.50	1.194		1.000	-0.08	0.357	0.426
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 2	518598	2592.99	19.73	20.50	1.194		1.000	-0.15	0.154	0.184
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 2	518598	2592.99	19.73	20.50	1.194		1.000	0.17	0.142	0.170
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 9	ECI 2	518598	2592.99	19.64	20.50	1.219		1.000	0.08	0.657	0.801
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 2	518598	2592.99	19.21	20.50	1.346		1.000	0.16	0.218	0.293
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 2	518598	2592.99	19.21	20.50	1.346		1.000	0.1	0.059	0.079
19	FR1 n41	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 2	518598	2592.99	19.21	20.50	1.346		1.000	-0.08	0.654	0.880
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 2	518598	2592.99	19.21	20.50	1.346		1.000	-0.07	0.121	0.163
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 2	518598	2592.99	19.06	20.50	1.393		1.000	-0.09	0.215	0.300
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 2	518598	2592.99	19.06	20.50	1.393		1.000	0.15	0.055	0.077
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 2	518598	2592.99	19.06	20.50	1.393		1.000	0.06	0.622	0.867
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 2	518598	2592.99	19.06	20.50	1.393		1.000	-0.06	0.116	0.162
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 6	ECI 2	518598	2592.99	19.03	20.50	1.403		1.000	0.04	0.619	0.868
3000-4000MHz																				
	LTE Band 42	20M	QPSK	1	0		Right Cheek	0mm	Ant 4	ECI 2	42590	3500	17.53	19.00	1.403	62.9	1.006	0.17	0.583	0.823
	LTE Band 42C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Cheek	0mm	Ant 4	ECI 2	42590 42788	3500 3519.8	17.46	19.00	1.426	62.9	1.006	0.03	0.525	0.753
	LTE Band 42	20M	QPSK	1	0		Right Tilted	0mm	Ant 4	ECI 2	42590	3500	17.53	19.00	1.403	62.9	1.006	-0.05	0.535	0.755
	LTE Band 42	20M	QPSK	1	0		Left Cheek	0mm	Ant 4	ECI 2	42590	3500	17.53	19.00	1.403	62.9	1.006	0.1	0.141	0.199
	LTE Band 42	20M	QPSK	1	0		Left Tilted	0mm	Ant 4	ECI 2	42590	3500	17.53	19.00	1.403	62.9	1.006	0.13	0.156	0.220
	LTE Band 42	20M	QPSK	1	0		Right Cheek	0mm	Ant 4	ECI 2	42190	3460	17.49	19.00	1.416	62.9	1.006	-0.02	0.547	0.779
	LTE Band 42	20M	QPSK	1	0		Right Cheek	0mm	Ant 4	ECI 2	42990	3540	17.36	19.00	1.459	62.9	1.006	0.12	0.513	0.753
	LTE Band 42	20M	QPSK	50	0		Right Cheek	0mm	Ant 4	ECI 2	42590	3500	17.45	19.00	1.429	62.9	1.006	0.05	0.567	0.815
	LTE Band 42	20M	QPSK	50	0		Right Tilted	0mm	Ant 4	ECI 2	42590	3500	17.45	19.00	1.429	62.9	1.006	0.07	0.516	0.742
	LTE Band 42	20M	QPSK	50	0		Left Cheek	0mm	Ant 4	ECI 2	42590	3500	17.45	19.00	1.429	62.9	1.006	0.08	0.132	0.190
	LTE Band 42	20M	QPSK	50	0		Left Tilted	0mm	Ant 4	ECI 2	42590	3500	17.45	19.00	1.429	62.9	1.006	-0.04	0.147	0.211
	LTE Band 42	20M	QPSK	50	0		Right Cheek	0mm	Ant 4	ECI 2	42190	3460	17.43	19.00	1.435	62.9	1.006	0.09	0.534	0.771
	LTE Band 42	20M	QPSK	50	0		Right Cheek	0mm	Ant 4	ECI 2	42990	3540	17.42	19.00	1.439	62.9	1.006	-0.04	0.508	0.735
	LTE Band 42	20M	QPSK	100	0		Right Cheek	0mm	Ant 4	ECI 2	42590	3500	17.40	19.00	1.445	62.9	1.006	0.09	0.533	0.775
	LTE Band 42	20M	QPSK	1	0		Right Cheek	0mm	Ant 5	ECI 2	42590	3500	19.74	20.50	1.191	62.9	1.006	-0.12	0.143	0.171
	LTE Band 42	20M	QPSK	1	0		Right Tilted	0mm	Ant 5	ECI 2	42590	3500	19.74	20.50	1.191	62.9	1.006	-0.16	0.174	0.209
	LTE Band 42	20M	QPSK	1	0		Left Cheek	0mm	Ant 5	ECI 2	42590	3500	19.74	20.50	1.191	62.9	1.006	-0.15	0.609	0.730
	LTE Band 42C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Left Cheek	0mm	Ant 5	ECI 2	42590 42788	3500 3519.8	19.52	20.50	1.253	62.9	1.006	0.06	0.515	0.649
	LTE Band 42	20M	QPSK	1	0		Left Tilted	0mm	Ant 5	ECI 2	42590	3500	19.74	20.50	1.191	62.9	1.006	-0.02	0.408	0.489
	LTE Band 42	20M	QPSK	50	0		Right Cheek	0mm	Ant 5	ECI 2	42590	3500	19.64	20.50	1.219	62.9	1.006	0.02	0.138	0.169
	LTE Band 42	20M	QPSK	50	0		Right Tilted	0mm	Ant 5	ECI 2	42590	3500	19.64	20.50	1.219	62.9	1.006	0.09	0.167	0.205
	LTE Band 42	20M	QPSK	50	0		Left Cheek	0mm	Ant 5	ECI 2	42590	3500	19.64	20.50	1.219	62.9	1.006	0.04	0.587	0.720
	LTE Band 42	20M	QPSK	50	0		Left Tilted	0mm	Ant 5	ECI 2	42590	3500	19.64	20.50	1.219	62.9	1.006	0.02	0.376	0.461



	LTE Band 42	20M	QPSK	1	0		Right Cheek	0mm	Ant 7	ECI 2	42590	3500	23.17	24.00	1.211	62.9	1.006	-0.1	0.337	0.410
	LTE Band 42	20M	QPSK	1	0		Right Tilted	0mm	Ant 7	ECI 2	42590	3500	23.17	24.00	1.211	62.9	1.006	-0.04	0.411	0.501
	LTE Band 42	20M	QPSK	1	0		Left Cheek	0mm	Ant 7	ECI 2	42590	3500	23.17	24.00	1.211	62.9	1.006	0.02	0.663	0.807
	LTE Band 42	20M	QPSK	1	0		Left Tilted	0mm	Ant 7	ECI 2	42590	3500	23.17	24.00	1.211	62.9	1.006	0.12	0.475	0.578
20	LTE Band 42	20M	QPSK	1	0		Left Cheek	0mm	Ant 7	ECI 2	42190	3460	23.04	24.00	1.247	62.9	1.006	0.12	0.667	0.837
	LTE Band 42C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Left Cheek	0mm	Ant 7	ECI 2	42590 42788	3500 3519.8	23.08	24.00	1.236	62.9	1.006	0.03	0.595	0.740
	LTE Band 42	20M	QPSK	1	0		Left Cheek	0mm	Ant 7	ECI 2	42990	3540	22.95	24.00	1.274	62.9	1.006	-0.01	0.587	0.752
	LTE Band 42	20M	QPSK	50	0		Right Cheek	0mm	Ant 7	ECI 2	42590	3500	22.11	23.00	1.227	62.9	1.006	0.09	0.268	0.331
	LTE Band 42	20M	QPSK	50	0		Right Tilted	0mm	Ant 7	ECI 2	42590	3500	22.11	23.00	1.227	62.9	1.006	-0.1	0.350	0.432
	LTE Band 42	20M	QPSK	50	0		Left Cheek	0mm	Ant 7	ECI 2	42590	3500	22.11	23.00	1.227	62.9	1.006	0.08	0.527	0.651
	LTE Band 42	20M	QPSK	50	0		Left Tilted	0mm	Ant 7	ECI 2	42590	3500	22.11	23.00	1.227	62.9	1.006	-0.16	0.377	0.466
	LTE Band 42	20M	QPSK	100	0		Left Cheek	0mm	Ant 7	ECI 2	42590	3500	22.03	23.00	1.250	62.9	1.006	0.06	0.505	0.635
	LTE Band 42	20M	QPSK	1	0		Right Cheek	0mm	Ant 11	ECI 2	42590	3500	23.18	24.00	1.208	62.9	1.006	0.17	0.075	0.091
	LTE Band 42C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Right Cheek	0mm	Ant 11	ECI 2	42590 42788	3500 3519.8	23.05	24.00	1.245	62.9	1.006	0.03	0.071	0.089
	LTE Band 42	20M	QPSK	1	0		Right Tilted	0mm	Ant 11	ECI 2	42590	3500	23.18	24.00	1.208	62.9	1.006	0.12	0.055	0.067
	LTE Band 42	20M	QPSK	1	0		Left Cheek	0mm	Ant 11	ECI 2	42590	3500	23.18	24.00	1.208	62.9	1.006	0.04	0.051	0.062
	LTE Band 42	20M	QPSK	1	0		Left Tilted	0mm	Ant 11	ECI 2	42590	3500	23.18	24.00	1.208	62.9	1.006	0.17	0.048	0.058
	LTE Band 42	20M	QPSK	50	0		Right Cheek	0mm	Ant 11	ECI 2	42590	3500	22.09	23.00	1.233	62.9	1.006	0.08	0.053	0.066
	LTE Band 42	20M	QPSK	50	0		Right Tilted	0mm	Ant 11	ECI 2	42590	3500	22.09	23.00	1.233	62.9	1.006	-0.09	0.044	0.055
	LTE Band 42	20M	QPSK	50	0		Left Cheek	0mm	Ant 11	ECI 2	42590	3500	22.09	23.00	1.233	62.9	1.006	0.08	0.042	0.052
	LTE Band 42	20M	QPSK	50	0		Left Tilted	0mm	Ant 11	ECI 2	42590	3500	22.09	23.00	1.233	62.9	1.006	-0.05	0.040	0.050
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 4	ECI 2	656000	3840	15.77	16.50	1.183		1.000	-0.06	0.633	0.749
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 4	ECI 2	656000	3840	15.77	16.50	1.183		1.000	-0.02	0.453	0.536
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 4	ECI 2	656000	3840	15.77	16.50	1.183		1.000	0.16	0.154	0.182
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 4	ECI 2	656000	3840	15.77	16.50	1.183		1.000	-0.11	0.176	0.208
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 4	ECI 2	656000	3840	15.75	16.50	1.189		1.000	-0.13	0.656	0.780
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 4	ECI 2	656000	3840	15.75	16.50	1.189		1.000	-0.14	0.462	0.549
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 4	ECI 2	656000	3840	15.75	16.50	1.189		1.000	0.05	0.165	0.196
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 4	ECI 2	656000	3840	15.75	16.50	1.189		1.000	0.01	0.184	0.219
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 4	ECI 2	656000	3840	15.73	16.50	1.194		1.000	0.04	0.637	0.761
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 4	ECI 2	656000	3840	15.73	16.50	1.194		1.000	-0.08	0.458	0.547
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 2	656000	3840	19.87	20.00	1.030		1.000	0.13	0.264	0.272
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 2	656000	3840	19.87	20.00	1.030		1.000	-0.12	0.296	0.305
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 2	656000	3840	19.87	20.00	1.030		1.000	-0.14	0.711	0.733
21	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 2	656000	3840	19.87	20.00	1.030		1.000	0.17	0.792	0.816
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 2	656000	3840	19.82	20.00	1.042		1.000	0.08	0.257	0.268
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 2	656000	3840	19.82	20.00	1.042		1.000	0.03	0.283	0.295
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 2	656000	3840	19.82	20.00	1.042		1.000	0.06	0.698	0.728
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 2	656000	3840	19.82	20.00	1.042		1.000	-0.12	0.754	0.786
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 5	ECI 2	656000	3840	19.81	20.00	1.045		1.000	0.06	0.674	0.704
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 5	ECI 2	656000	3840	19.81	20.00	1.045		1.000	-0.09	0.738	0.771
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 2	656000	3840	15.71	16.50	1.199		1.000	-0.1	0.379	0.455
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 2	656000	3840	15.71	16.50	1.199		1.000	0.12	0.400	0.480
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 2	656000	3840	15.71	16.50	1.199		1.000	-0.16	0.600	0.720
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 2	656000	3840	15.71	16.50	1.199		1.000	0.07	0.580	0.696
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	ECI 2	656000	3840	15.66	16.50	1.213		1.000	0.13	0.371	0.450
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	ECI 2	656000	3840	15.66	16.50	1.213		1.000	0.13	0.390	0.473
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	ECI 2	656000	3840	15.66	16.50	1.213		1.000	0.11	0.608	0.738
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	ECI 2	656000	3840	15.66	16.50	1.213		1.000	-0.12	0.573	0.695
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 7	ECI 2	656000	3840	15.64	16.50	1.219		1.000	0.08	0.368	0.449
	FR1 n77	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 7	ECI 2	656000	3840	15.64	16.50	1.219		1.000	0.04	0.376	0.458
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 2	656000	3840	15.64	16.50	1.219		1.000	-0.06	0.587	0.716
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 7	ECI 2	656000	3840	15.64	16.50	1.219		1.000	0.05	0.554	0.675
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	656000	3840	26.41	27.00	1.146		1.000	0.17	0.233	0.267



	FR1 n77	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	656000	3840	26.41	27.00	1.146		1.000	0.03	0.102	0.117
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	656000	3840	26.41	27.00	1.146		1.000	-0.17	0.088	0.101
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	656000	3840	26.41	27.00	1.146		1.000	0.07	0.061	0.070
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 2	656000	3840	26.35	27.00	1.161		1.000	0.02	0.218	0.253
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 2	656000	3840	26.35	27.00	1.161		1.000	0.08	0.097	0.113
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 2	656000	3840	26.35	27.00	1.161		1.000	0.09	0.082	0.095
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 2	656000	3840	26.35	27.00	1.161		1.000	-0.16	0.058	0.067

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)
WLAN&BT																
22	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 3	Head Standalone Simultaneous WIFI 5/6G+BT	39	2441	12.30	13.50	1.318	76.6	1.087	0.15	0.095	0.136
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 3		39	2441	12.30	13.50	1.318	76.6	1.087	-0.05	0.108	0.155
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 3		39	2441	12.30	13.50	1.318	76.6	1.087	0.03	0.262	0.375
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 3		39	2441	12.30	13.50	1.318	76.6	1.087	0.07	0.211	0.302
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 3	Head Simultaneous WWAN+WIFI 5/6G+BT	39	2441	10.60	11.50	1.230	76.6	1.087	-0.06	0.062	0.083
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 3		39	2441	10.60	11.50	1.230	76.6	1.087	0.15	0.069	0.092
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 3		39	2441	10.60	11.50	1.230	76.6	1.087	-0.17	0.172	0.230
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 3		39	2441	10.60	11.50	1.230	76.6	1.087	-0.16	0.134	0.179
23	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Head Standalone	1	2412	18.11	19.50	1.377	98.39	1.016	0.11	0.310	0.434
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3		1	2412	18.11	19.50	1.377	98.39	1.016	-0.02	0.365	0.511
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3		1	2412	18.11	19.50	1.377	98.39	1.016	-0.08	0.792	1.108
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3		1	2412	18.11	19.50	1.377	98.39	1.016	0.02	0.645	0.903
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3		6	2437	18.03	19.50	1.403	98.39	1.016	0.13	0.828	1.180
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3		11	2462	17.89	19.50	1.449	98.39	1.016	-0.05	0.787	1.158
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3		6	2437	18.03	19.50	1.403	98.39	1.016	0.08	0.670	0.955
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3		11	2462	17.89	19.50	1.449	98.39	1.016	0.04	0.648	0.954
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Head DBS WIFI 2.4G SISO1+WIFI 5/6G SISO2	1	2412	16.64	18.00	1.368	98.39	1.016	-0.01	0.208	0.289
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3		1	2412	16.64	18.00	1.368	98.39	1.016	-0.02	0.247	0.343
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3		1	2412	16.64	18.00	1.368	98.39	1.016	-0.04	0.558	0.775
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3		1	2412	16.64	18.00	1.368	98.39	1.016	-0.12	0.462	0.642
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 3	Head Simultaneous WWAN+WLAN2.4G SISO1 WWAN+WLAN2.4G MIMO WWAN+WLAN2.4G SISO1+WIFI 5/6G SISO2	1	2412	13.18	14.50	1.355	98.39	1.016	-0.03	0.098	0.135
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 3		1	2412	13.18	14.50	1.355	98.39	1.016	0.06	0.124	0.171
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 3		1	2412	13.18	14.50	1.355	98.39	1.016	-0.06	0.249	0.343
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 3		1	2412	13.18	14.50	1.355	98.39	1.016	0.11	0.217	0.299
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6	Head Standalone	1	2412	20.90	22.00	1.288	98.39	1.016	0.01	0.222	0.291
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6		1	2412	20.90	22.00	1.288	98.39	1.016	0.06	0.066	0.086
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6		1	2412	20.90	22.00	1.288	98.39	1.016	-0.03	0.615	0.805
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6		1	2412	20.90	22.00	1.288	98.39	1.016	0.04	0.131	0.171
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6		6	2437	20.80	22.00	1.318	98.39	1.016	-0.1	0.623	0.834
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6		11	2462	20.40	22.00	1.445	98.39	1.016	0.07	0.561	0.824
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 6	Head Simultaneous WWAN+WLAN2.4G SISO2 WWAN+WLAN2.4G MIMO	1	2412	18.05	19.00	1.245	98.39	1.016	-0.1	0.106	0.134
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 6		1	2412	18.05	19.00	1.245	98.39	1.016	0.09	0.038	0.048
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 6		1	2412	18.05	19.00	1.245	98.39	1.016	-0.07	0.289	0.365
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 6		1	2412	18.05	19.00	1.245	98.39	1.016	0.03	0.067	0.085
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7	Head Standalone Simultaneous WLAN5G+BT	58	5290	16.73	18.00	1.340	92.86	1.077	0.06	0.395	0.570
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7		58	5290	16.73	18.00	1.340	92.86	1.077	0.04	0.523	0.755
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7		58	5290	16.73	18.00	1.340	92.86	1.077	0.16	0.645	0.931
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		58	5290	16.73	18.00	1.340	92.86	1.077	0.14	0.824	1.189
	WLAN5GHz Protective Cover	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		58	5290	16.73	18.00	1.340	92.86	1.077	0.08	0.725	1.046
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+7		50	5250	14.74	16.00	1.337	85.92	1.164	0.08	0.265	0.412



	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+7	Head DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	50	5250	14.74	16.00	1.337	85.92	1.164	-0.02	0.341	0.531
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+7		50	5250	14.74	16.00	1.337	85.92	1.164	0.03	0.439	0.683
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+7		50	5250	14.74	16.00	1.337	85.92	1.164	0.14	0.478	0.744
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+7	Head Simultaneous WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	50	5250	11.82	13.00	1.312	85.92	1.164	-0.06	0.137	0.209
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+7		50	5250	11.82	13.00	1.312	85.92	1.164	0.07	0.169	0.258
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+7		50	5250	11.82	13.00	1.312	85.92	1.164	-0.05	0.225	0.344
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+7		50	5250	11.82	13.00	1.312	85.92	1.164	0.08	0.239	0.365
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7	Head Standalone Simultaneous WLAN5G+BT	122	5610	16.74	18.00	1.337	92.86	1.077	-0.12	0.462	0.665
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7		122	5610	16.74	18.00	1.337	92.86	1.077	-0.09	0.592	0.852
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7		122	5610	16.74	18.00	1.337	92.86	1.077	0.1	0.716	1.031
25	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		122	5610	16.74	18.00	1.337	92.86	1.077	0.17	0.804	1.157
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7		138	5690	16.56	18.00	1.393	92.86	1.077	0.03	0.511	0.767
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7		106	5530	16.53	18.00	1.403	92.86	1.077	-0.06	0.559	0.845
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7		138	5690	16.56	18.00	1.393	92.86	1.077	-0.05	0.625	0.938
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7		106	5530	16.53	18.00	1.403	92.86	1.077	-0.1	0.686	1.036
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		138	5690	16.56	18.00	1.393	92.86	1.077	-0.02	0.706	1.059
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		106	5530	16.53	18.00	1.403	92.86	1.077	-0.08	0.759	1.147
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+7	Head DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	114	5570	15.02	16.50	1.406	85.92	1.164	-0.08	0.318	0.520
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+7		114	5570	15.02	16.50	1.406	85.92	1.164	-0.11	0.406	0.664
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+7		114	5570	15.02	16.50	1.406	85.92	1.164	-0.07	0.447	0.732
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+7		114	5570	15.02	16.50	1.406	85.92	1.164	0.1	0.486	0.795
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 5+7	Head Simultaneous WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	114	5570	12.04	13.50	1.400	85.92	1.164	-0.03	0.165	0.269
	WLAN5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 5+7		114	5570	12.04	13.50	1.400	85.92	1.164	0.05	0.211	0.344
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 5+7		114	5570	12.04	13.50	1.400	85.92	1.164	0.07	0.227	0.370
	WLAN5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 5+7		114	5570	12.04	13.50	1.400	85.92	1.164	-0.09	0.241	0.393
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7	Head Standalone Simultaneous WLAN5G+BT	155	5775	16.75	18.00	1.334	92.86	1.077	-0.14	0.515	0.740
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7		155	5775	16.75	18.00	1.334	92.86	1.077	-0.08	0.567	0.814
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7		155	5775	16.75	18.00	1.334	92.86	1.077	-0.12	0.733	1.053
26	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		155	5775	16.75	18.00	1.334	92.86	1.077	0.14	0.776	1.114
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7	Head DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	155	5775	14.80	16.00	1.318	92.86	1.077	-0.13	0.332	0.471
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7		155	5775	14.80	16.00	1.318	92.86	1.077	-0.11	0.364	0.517
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7		155	5775	14.80	16.00	1.318	92.86	1.077	-0.15	0.481	0.683
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		155	5775	14.80	16.00	1.318	92.86	1.077	-0.03	0.527	0.748
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 5+7	Head Simultaneous WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	155	5775	11.80	13.00	1.318	92.86	1.077	0.05	0.168	0.239
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 5+7		155	5775	11.80	13.00	1.318	92.86	1.077	0.16	0.183	0.260
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 5+7		155	5775	11.80	13.00	1.318	92.86	1.077	-0.15	0.245	0.348
	WLAN5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7		155	5775	11.80	13.00	1.318	92.86	1.077	0.11	0.251	0.356



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-HE80 MCS0	Right Cheek	0mm	Ant 5+7	Head Standalone Simultaneous WLAN5G+BT	87	6385	18.36	20.00	1.460	90.65	1.103	0.05	0.250	0.403	2.25
	WLAN6GHz	802.11ax-HE80 MCS0	Right Tilted	0mm	Ant 5+7		87	6385	18.36	20.00	1.460	90.65	1.103	0.07	0.296	0.477	2.54
	WLAN6GHz	802.11ax-HE80 MCS0	Left Cheek	0mm	Ant 5+7		87	6385	18.36	20.00	1.460	90.65	1.103	-0.05	0.332	0.535	2.27
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		87	6385	18.36	20.00	1.460	90.65	1.103	-0.17	0.409	0.659	2.61
27	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		7	5985	18.28	20.00	1.487	90.65	1.103	-0.05	0.693	1.137	4.79
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		103	6465	18.56	19.50	1.242	90.65	1.103	-0.17	0.386	0.529	2.51
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		135	6625	18.43	20.00	1.437	90.65	1.103	-0.01	0.169	0.268	1.18
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		215	7025	19.50	21.00	1.412	90.65	1.103	-0.13	0.389	0.606	2.66
	WLAN6GHz	802.11ax-HE80 MCS0	Right Cheek	0mm	Ant 5+7		87	6385	16.95	18.50	1.429	90.65	1.103	-0.08	0.191	0.301	1.62
	WLAN6GHz	802.11ax-HE80 MCS0	Right Tilted	0mm	Ant 5+7		87	6385	16.95	18.50	1.429	90.65	1.103	-0.04	0.224	0.353	1.87
	WLAN6GHz	802.11ax-HE80 MCS0	Left Cheek	0mm	Ant 5+7	Head DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	87	6385	16.95	18.50	1.429	90.65	1.103	0.04	0.248	0.391	1.66
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		87	6385	16.95	18.50	1.429	90.65	1.103	0.01	0.306	0.482	1.91
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		7	5985	16.80	18.50	1.479	90.65	1.103	0.05	0.519	0.847	3.34
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		103	6465	18.56	19.50	1.242	90.65	1.103	-0.17	0.386	0.529	2.51
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		135	6625	18.43	20.00	1.437	90.65	1.103	-0.01	0.169	0.268	1.18
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		215	7025	19.50	21.00	1.412	90.65	1.103	-0.13	0.389	0.606	2.66
	WLAN6GHz	802.11ax-HE160 MCS0	Right Cheek	0mm	Ant 5+7		79	6345	12.86	14.50	1.459	85	1.176	0.04	0.089	0.153	0.651
	WLAN6GHz	802.11ax-HE160 MCS0	Right Tilted	0mm	Ant 5+7		79	6345	12.86	14.50	1.459	85	1.176	-0.09	0.091	0.156	0.734
	WLAN6GHz	802.11ax-HE160 MCS0	Left Cheek	0mm	Ant 5+7	Head DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	79	6345	12.86	14.50	1.459	85	1.176	0.09	0.102	0.175	0.646
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+7		79	6345	12.86	14.50	1.459	85	1.176	0.04	0.131	0.225	0.758
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+7		15	6025	12.69	14.50	1.517	85	1.176	-0.03	0.211	0.376	1.24
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+7		111	6505	15.27	17.00	1.489	85	1.176	0.09	0.224	0.392	1.33
	WLAN6GHz	802.11ax-HE80 MCS0	Left Tilted	0mm	Ant 5+7		135	6625	18.43	20.00	1.437	90.65	1.103	-0.01	0.169	0.268	1.18
	WLAN6GHz	802.11ax-HE160 MCS0	Left Tilted	0mm	Ant 5+7		207	6985	16.24	18.00	1.501	85	1.176	-0.15	0.220	0.388	1.42



16.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Reported 1g SAR (W/kg)
750MHz																				
	LTE Band 71	20M	QPSK	1	0		Front	5mm	Ant 0	ECI 7	133297	680.5	23.02	24.00	1.253		1.000	0.04	0.342	0.429
	LTE Band 71	20M	QPSK	1	0		Back	5mm	Ant 0	ECI 7	133297	680.5	23.02	24.00	1.253		1.000	0.11	0.368	0.461
	LTE Band 71	20M	QPSK	1	0		Left Side	5mm	Ant 0	ECI 7	133297	680.5	23.02	24.00	1.253		1.000	-0.03	0.114	0.143
	LTE Band 71	20M	QPSK	1	0		Right Side	5mm	Ant 0	ECI 7	133297	680.5	23.02	24.00	1.253		1.000	-0.07	0.351	0.440
	LTE Band 71	20M	QPSK	1	0		Bottom Side	5mm	Ant 0	ECI 7	133297	680.5	23.02	24.00	1.253		1.000	0.03	0.309	0.387
	LTE Band 71	20M	QPSK	50	0		Front	5mm	Ant 0	ECI 7	133297	680.5	22.02	23.00	1.253		1.000	-0.17	0.291	0.365
	LTE Band 71	20M	QPSK	50	0		Back	5mm	Ant 0	ECI 7	133297	680.5	22.02	23.00	1.253		1.000	-0.08	0.345	0.432
	LTE Band 71	20M	QPSK	50	0		Left Side	5mm	Ant 0	ECI 7	133297	680.5	22.02	23.00	1.253		1.000	-0.13	0.096	0.120
	LTE Band 71	20M	QPSK	50	0		Right Side	5mm	Ant 0	ECI 7	133297	680.5	22.02	23.00	1.253		1.000	0.15	0.296	0.371
	LTE Band 71	20M	QPSK	50	0		Bottom Side	5mm	Ant 0	ECI 7	133297	680.5	22.02	23.00	1.253		1.000	0.15	0.245	0.307
	LTE Band 71	20M	QPSK	1	0		Front	5mm	Ant 1	ECI 7	133297	680.5	21.93	23.00	1.279		1.000	0.09	0.176	0.225
	LTE Band 71	20M	QPSK	1	0		Back	5mm	Ant 1	ECI 7	133297	680.5	21.93	23.00	1.279		1.000	0.03	0.202	0.258
28	LTE Band 71	20M	QPSK	1	0		Left Side	5mm	Ant 1	ECI 7	133297	680.5	21.93	23.00	1.279		1.000	-0.13	0.474	0.606
	LTE Band 71	20M	QPSK	1	0		Bottom Side	5mm	Ant 1	ECI 7	133297	680.5	21.93	23.00	1.279		1.000	-	0.000	0.000
	LTE Band 71	20M	QPSK	50	0		Front	5mm	Ant 1	ECI 7	133297	680.5	21.82	23.00	1.312		1.000	0.08	0.162	0.213
	LTE Band 71	20M	QPSK	50	0		Back	5mm	Ant 1	ECI 7	133297	680.5	21.82	23.00	1.312		1.000	0.01	0.185	0.243
	LTE Band 71	20M	QPSK	50	0		Left Side	5mm	Ant 1	ECI 7	133297	680.5	21.82	23.00	1.312		1.000	0.07	0.453	0.594
	LTE Band 71	20M	QPSK	50	0		Bottom Side	5mm	Ant 1	ECI 7	133297	680.5	21.82	23.00	1.312		1.000	-	0.000	0.000
	LTE Band 12	10M	QPSK	1	0		Front	5mm	Ant 0	ECI 7	23095	707.5	23.12	24.00	1.225		1.000	-0.09	0.245	0.300
	LTE Band 12	10M	QPSK	1	0		Back	5mm	Ant 0	ECI 7	23095	707.5	23.12	24.00	1.225		1.000	-0.07	0.396	0.485
	LTE Band 12	10M	QPSK	1	0		Left Side	5mm	Ant 0	ECI 7	23095	707.5	23.12	24.00	1.225		1.000	0.01	0.098	0.120
	LTE Band 12	10M	QPSK	1	0		Right Side	5mm	Ant 0	ECI 7	23095	707.5	23.12	24.00	1.225		1.000	-0.1	0.383	0.469
	LTE Band 12	10M	QPSK	1	0		Bottom Side	5mm	Ant 0	ECI 7	23095	707.5	23.12	24.00	1.225		1.000	-0.06	0.194	0.238
	LTE Band 12	10M	QPSK	25	0		Front	5mm	Ant 0	ECI 7	23095	707.5	22.13	23.00	1.222		1.000	0.04	0.201	0.246
	LTE Band 12	10M	QPSK	25	0		Back	5mm	Ant 0	ECI 7	23095	707.5	22.13	23.00	1.222		1.000	-0.08	0.244	0.298
	LTE Band 12	10M	QPSK	25	0		Left Side	5mm	Ant 0	ECI 7	23095	707.5	22.13	23.00	1.222		1.000	-0.03	0.077	0.094
	LTE Band 12	10M	QPSK	25	0		Right Side	5mm	Ant 0	ECI 7	23095	707.5	22.13	23.00	1.222		1.000	-0.14	0.266	0.325
	LTE Band 12	10M	QPSK	25	0		Bottom Side	5mm	Ant 0	ECI 7	23095	707.5	22.13	23.00	1.222		1.000	0.08	0.161	0.197
	LTE Band 12	10M	QPSK	1	0		Front	5mm	Ant 1	ECI 7	23095	707.5	19.48	21.00	1.419		1.000	0.07	0.135	0.192
	LTE Band 12	10M	QPSK	1	0		Back	5mm	Ant 1	ECI 7	23095	707.5	19.48	21.00	1.419		1.000	0.1	0.161	0.228
29	LTE Band 12	10M	QPSK	1	0		Left Side	5mm	Ant 1	ECI 7	23095	707.5	19.48	21.00	1.419		1.000	-0.16	0.388	0.551
	LTE Band 12	10M	QPSK	1	0		Bottom Side	5mm	Ant 1	ECI 7	23095	707.5	19.48	21.00	1.419		1.000	-	0.000	0.000
	LTE Band 12	10M	QPSK	25	0		Front	5mm	Ant 1	ECI 7	23095	707.5	19.40	21.00	1.445		1.000	0.17	0.128	0.185
	LTE Band 12	10M	QPSK	25	0		Back	5mm	Ant 1	ECI 7	23095	707.5	19.40	21.00	1.445		1.000	-0.01	0.148	0.214
	LTE Band 12	10M	QPSK	25	0		Left Side	5mm	Ant 1	ECI 7	23095	707.5	19.40	21.00	1.445		1.000	0.11	0.371	0.536
	LTE Band 12	10M	QPSK	25	0		Bottom Side	5mm	Ant 1	ECI 7	23095	707.5	19.40	21.00	1.445		1.000	-	0.000	0.000
	LTE Band 13	10M	QPSK	1	0		Front	5mm	Ant 0	ECI 7	23230	782	22.71	24.00	1.346		1.000	0.17	0.294	0.396
	LTE Band 13	10M	QPSK	1	0		Back	5mm	Ant 0	ECI 7	23230	782	22.71	24.00	1.346		1.000	0.1	0.359	0.483
	LTE Band 13	10M	QPSK	1	0		Left Side	5mm	Ant 0	ECI 7	23230	782	22.71	24.00	1.346		1.000	-0.07	0.097	0.131
	LTE Band 13	10M	QPSK	1	0		Right Side	5mm	Ant 0	ECI 7	23230	782	22.71	24.00	1.346		1.000	-0.05	0.233	0.314
	LTE Band 13	10M	QPSK	1	0		Bottom Side	5mm	Ant 0	ECI 7	23230	782	22.71	24.00	1.346		1.000	-0.04	0.237	0.319
	LTE Band 13	10M	QPSK	25	0		Front	5mm	Ant 0	ECI 7	23230	782	21.61	23.00	1.377		1.000	0.13	0.221	0.304
	LTE Band 13	10M	QPSK	25	0		Back	5mm	Ant 0	ECI 7	23230	782	21.61	23.00	1.377		1.000	0.07	0.260	0.358
	LTE Band 13	10M	QPSK	25	0		Left Side	5mm	Ant 0	ECI 7	23230	782	21.61	23.00	1.377		1.000	0.15	0.072	0.099
	LTE Band 13	10M	QPSK	25	0		Right Side	5mm	Ant 0	ECI 7	23230	782	21.61	23.00	1.377		1.000	0.17	0.171	0.236
	LTE Band 13	10M	QPSK	25	0		Bottom Side	5mm	Ant 0	ECI 7	23230	782	21.61	23.00	1.377		1.000	-0.1	0.158	0.218
	LTE Band 13	10M	QPSK	1	0		Front	5mm	Ant 1	ECI 7	23230	782	16.48	18.00	1.419		1.000	0.01	0.136	0.193
	LTE Band 13	10M	QPSK	1	0		Back	5mm	Ant 1	ECI 7	23230	782	16.48	18.00	1.419		1.000	-0.14	0.163	0.231
30	LTE Band 13	10M	QPSK	1	0		Left Side	5mm	Ant 1	ECI 7	23230	782	16.48	18.00	1.419		1.000	0.06	0.378	0.536
	LTE Band 13	10M	QPSK	1	0		Bottom Side	5mm	Ant 1	ECI 7	23230	782	16.48	18.00	1.419		1.000	-	0.000	0.000



	LTE Band 13	10M	QPSK	25	0		Front	5mm	Ant 1	ECI 7	23230	782	16.41	18.00	1.442		1.000	0.01	0.128	0.185
	LTE Band 13	10M	QPSK	25	0		Back	5mm	Ant 1	ECI 7	23230	782	16.41	18.00	1.442		1.000	0.03	0.149	0.215
	LTE Band 13	10M	QPSK	25	0		Left Side	5mm	Ant 1	ECI 7	23230	782	16.41	18.00	1.442		1.000	0.05	0.359	0.518
	LTE Band 13	10M	QPSK	25	0		Bottom Side	5mm	Ant 1	ECI 7	23230	782	16.41	18.00	1.442		1.000	-	0.000	0.000
	FR1 n71	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 0	ECI 7	136100	680.5	22.68	24.00	1.355		1.000	-0.06	0.239	0.324
	FR1 n71	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 0	ECI 7	136100	680.5	22.68	24.00	1.355		1.000	-0.09	0.309	0.419
	FR1 n71	20M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 0	ECI 7	136100	680.5	22.68	24.00	1.355		1.000	-0.06	0.103	0.140
	FR1 n71	20M	QPSK	1	1	DFT-15	Right Side	5mm	Ant 0	ECI 7	136100	680.5	22.68	24.00	1.355		1.000	-0.02	0.261	0.354
	FR1 n71	20M	QPSK	1	1	DFT-15	Bottom Side	5mm	Ant 0	ECI 7	136100	680.5	22.68	24.00	1.355		1.000	-0.11	0.193	0.262
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 0	ECI 7	136100	680.5	22.52	24.00	1.406		1.000	-0.11	0.224	0.315
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 0	ECI 7	136100	680.5	22.52	24.00	1.406		1.000	0.03	0.298	0.419
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Side	5mm	Ant 0	ECI 7	136100	680.5	22.52	24.00	1.406		1.000	-0.14	0.097	0.136
	FR1 n71	20M	QPSK	50	28	DFT-15	Right Side	5mm	Ant 0	ECI 7	136100	680.5	22.52	24.00	1.406		1.000	0.06	0.244	0.343
	FR1 n71	20M	QPSK	50	28	DFT-15	Bottom Side	5mm	Ant 0	ECI 7	136100	680.5	22.52	24.00	1.406		1.000	0.01	0.185	0.260
	FR1 n71	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 1	ECI 7	136100	680.5	19.38	20.50	1.294		1.000	0.05	0.174	0.225
	FR1 n71	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 1	ECI 7	136100	680.5	19.38	20.50	1.294		1.000	0.1	0.207	0.268
31	FR1 n71	20M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 1	ECI 7	136100	680.5	19.38	20.50	1.294		1.000	-0.12	0.441	0.571
	FR1 n71	20M	QPSK	1	1	DFT-15	Bottom Side	5mm	Ant 1	ECI 7	136100	680.5	19.38	20.50	1.294		1.000	-	0.000	0.000
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 1	ECI 7	136100	680.5	19.35	20.50	1.303		1.000	-0.12	0.166	0.216
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 1	ECI 7	136100	680.5	19.35	20.50	1.303		1.000	0.17	0.195	0.254
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Side	5mm	Ant 1	ECI 7	136100	680.5	19.35	20.50	1.303		1.000	-0.09	0.406	0.529
	FR1 n71	20M	QPSK	50	28	DFT-15	Bottom Side	5mm	Ant 1	ECI 7	136100	680.5	19.35	20.50	1.303		1.000	-	0.000	0.000
835MHz																				
	GSM850					GPRS 4TX Slot	Front	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462		1.000	0.07	0.568	0.831
32	GSM850					GPRS 4TX Slot	Back	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462		1.000	0.15	0.852	1.246
	GSM850 Protective Cover					GPRS 4TX Slot	Back	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462		1.000	0.09	0.738	1.079
	GSM850					GPRS 4TX Slot	Left Side	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462		1.000	0.14	0.110	0.161
	GSM850					GPRS 4TX Slot	Right Side	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462		1.000	-0.07	0.512	0.749
	GSM850					GPRS 4TX Slot	Bottom Side	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462		1.000	-0.15	0.511	0.747
	GSM850					GPRS 4TX Slot	Front	5mm	Ant 0	ECI 7	128	824.2	28.81	30.50	1.476		1.000	0.02	0.557	0.822
	GSM850					GPRS 4TX Slot	Front	5mm	Ant 0	ECI 7	251	848.8	28.79	30.50	1.483		1.000	0.11	0.568	0.842
	GSM850					GPRS 4TX Slot	Back	5mm	Ant 0	ECI 7	128	824.2	28.81	30.50	1.476		1.000	0.01	0.729	1.076
	GSM850					GPRS 4TX Slot	Back	5mm	Ant 0	ECI 7	251	848.8	28.79	30.50	1.483		1.000	0.09	0.810	1.201
	WCDMA V					RMC 12.2Kbps	Front	5mm	Ant 0	ECI 7	4182	836.4	23.11	24.00	1.227		1.000	0.12	0.388	0.476
33	WCDMA V					RMC 12.2Kbps	Back	5mm	Ant 0	ECI 7	4182	836.4	23.11	24.00	1.227		1.000	-0.04	0.581	0.713
	WCDMA V					RMC 12.2Kbps	Left Side	5mm	Ant 0	ECI 7	4182	836.4	23.11	24.00	1.227		1.000	-0.08	0.063	0.077
	WCDMA V					RMC 12.2Kbps	Right Side	5mm	Ant 0	ECI 7	4182	836.4	23.11	24.00	1.227		1.000	0.17	0.275	0.338
	WCDMA V					RMC 12.2Kbps	Bottom Side	5mm	Ant 0	ECI 7	4182	836.4	23.11	24.00	1.227		1.000	-0.1	0.348	0.427
	LTE Band 26	15M	QPSK	1	0		Front	5mm	Ant 0	ECI 7	26865	831.5	22.93	24.00	1.279		1.000	-0.08	0.374	0.478
34	LTE Band 26	15M	QPSK	1	0		Back	5mm	Ant 0	ECI 7	26865	831.5	22.93	24.00	1.279		1.000	0.03	0.490	0.627
	LTE Band 26	15M	QPSK	1	0		Left Side	5mm	Ant 0	ECI 7	26865	831.5	22.93	24.00	1.279		1.000	0.01	0.127	0.162
	LTE Band 26	15M	QPSK	1	0		Right Side	5mm	Ant 0	ECI 7	26865	831.5	22.93	24.00	1.279		1.000	-0.17	0.341	0.436
	LTE Band 26	15M	QPSK	1	0		Bottom Side	5mm	Ant 0	ECI 7	26865	831.5	22.93	24.00	1.279		1.000	0.02	0.329	0.421
	LTE Band 26	15M	QPSK	36	0		Front	5mm	Ant 0	ECI 7	26865	831.5	22.04	23.00	1.247		1.000	0.04	0.297	0.370
	LTE Band 26	15M	QPSK	36	0		Back	5mm	Ant 0	ECI 7	26865	831.5	22.04	23.00	1.247		1.000	0.11	0.386	0.481
	LTE Band 26	15M	QPSK	36	0		Left Side	5mm	Ant 0	ECI 7	26865	831.5	22.04	23.00	1.247		1.000	-0.05	0.097	0.121
	LTE Band 26	15M	QPSK	36	0		Right Side	5mm	Ant 0	ECI 7	26865	831.5	22.04	23.00	1.247		1.000	0.06	0.269	0.336
	LTE Band 26	15M	QPSK	36	0		Bottom Side	5mm	Ant 0	ECI 7	26865	831.5	22.04	23.00	1.247		1.000	0.16	0.263	0.328
	LTE Band 26	15M	QPSK	1	0		Front	5mm	Ant 1	ECI 7	26865	831.5	19.71	21.00	1.346		1.000	-0.13	0.152	0.205
	LTE Band 26	15M	QPSK	1	0		Back	5mm	Ant 1	ECI 7	26865	831.5	19.71	21.00	1.346		1.000	0.03	0.189	0.254
	LTE Band 26	15M	QPSK	1	0		Left Side	5mm	Ant 1	ECI 7	26865	831.5	19.71	21.00	1.346		1.000	0.12	0.443	0.596
	LTE Band 26	15M	QPSK	1	0		Bottom Side	5mm	Ant 1	ECI 7	26865	831.5	19.71	21.00	1.346		1.000	-	0.000	0.000
	LTE Band 26	15M	QPSK	36	0		Front	5mm	Ant 1	ECI 7	26865	831.5	19.70	21.00	1.349		1.000	-0.09	0.145	0.196
	LTE Band 26	15M	QPSK	36	0		Back	5mm	Ant 1	ECI 7	26865	831.5	19.70	21.00	1.349		1.000	-0.17	0.175	0.236



	LTE Band 26	15M	QPSK	36	0		Left Side	5mm	Ant 1	ECI 7	26865	831.5	19.70	21.00	1.349		1.000	0.14	0.415	0.560
	LTE Band 26	15M	QPSK	36	0		Bottom Side	5mm	Ant 1	ECI 7	26865	831.5	19.70	21.00	1.349		1.000	-	0.000	0.000
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 0	ECI 7	166300	831.5	22.97	24.00	1.268		1.000	0.09	0.272	0.345
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 0	ECI 7	166300	831.5	22.97	24.00	1.268		1.000	-0.07	0.368	0.466
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 0	ECI 7	166300	831.5	22.97	24.00	1.268		1.000	-0.09	0.068	0.086
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Side	5mm	Ant 0	ECI 7	166300	831.5	22.97	24.00	1.268		1.000	-0.01	0.231	0.293
	FR1 n26	20M	QPSK	1	1	DFT-15	Bottom Side	5mm	Ant 0	ECI 7	166300	831.5	22.97	24.00	1.268		1.000	-0.02	0.238	0.302
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 0	ECI 7	166300	831.5	22.76	24.00	1.330		1.000	0.07	0.264	0.351
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 0	ECI 7	166300	831.5	22.76	24.00	1.330		1.000	-0.06	0.345	0.459
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	5mm	Ant 0	ECI 7	166300	831.5	22.76	24.00	1.330		1.000	-0.02	0.062	0.082
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Side	5mm	Ant 0	ECI 7	166300	831.5	22.76	24.00	1.330		1.000	-0.14	0.221	0.294
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Side	5mm	Ant 0	ECI 7	166300	831.5	22.76	24.00	1.330		1.000	-0.11	0.234	0.311
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 1	ECI 7	166300	831.5	17.96	19.00	1.271		1.000	-0.12	0.154	0.196
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 1	ECI 7	166300	831.5	17.96	19.00	1.271		1.000	-0.11	0.194	0.246
35	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 1	ECI 7	166300	831.5	17.96	19.00	1.271		1.000	-0.13	0.452	0.574
	FR1 n26	20M	QPSK	1	1	DFT-15	Bottom Side	5mm	Ant 1	ECI 7	166300	831.5	17.96	19.00	1.271		1.000	-	0.000	0.000
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 1	ECI 7	166300	831.5	17.93	19.00	1.279		1.000	0.17	0.149	0.191
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 1	ECI 7	166300	831.5	17.93	19.00	1.279		1.000	-0.07	0.184	0.235
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	5mm	Ant 1	ECI 7	166300	831.5	17.93	19.00	1.279		1.000	-0.02	0.416	0.532
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Side	5mm	Ant 1	ECI 7	166300	831.5	17.93	19.00	1.279		1.000	-	0.000	0.000
1750MHz																				
	WCDMA IV					RMC 12.2Kbps	Front	5mm	Ant 2	ECI 7	1413	1732.6	16.95	18.70	1.496		1.000	-0.01	0.257	0.385
	WCDMA IV					RMC 12.2Kbps	Back	5mm	Ant 2	ECI 7	1413	1732.6	16.95	18.70	1.496		1.000	0.01	0.441	0.660
	WCDMA IV					RMC 12.2Kbps	Left Side	5mm	Ant 2	ECI 7	1413	1732.6	16.95	18.70	1.496		1.000	0.11	0.073	0.109
	WCDMA IV					RMC 12.2Kbps	Bottom Side	5mm	Ant 2	ECI 7	1413	1732.6	16.95	18.70	1.496		1.000	0.11	0.555	0.830
	WCDMA IV					RMC 12.2Kbps	Bottom Side	5mm	Ant 2	ECI 7	1312	1712.4	16.86	18.70	1.528		1.000	0.08	0.590	0.901
36	WCDMA IV					RMC 12.2Kbps	Bottom Side	5mm	Ant 2	ECI 7	1513	1752.6	16.85	18.70	1.531		1.000	0.06	0.691	1.058
	LTE Band 66	20M	QPSK	1	0		Front	5mm	Ant 2	ECI 7	132322	1745	19.62	20.50	1.225		1.000	-0.15	0.412	0.505
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	132322	1745	19.62	20.50	1.225		1.000	-0.16	0.563	0.689
	LTE Band 66	20M	QPSK	1	0		Left Side	5mm	Ant 2	ECI 7	132322	1745	19.62	20.50	1.225		1.000	-0.17	0.116	0.142
	LTE Band 66	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	132322	1745	19.62	20.50	1.225		1.000	0.08	0.690	0.845
	LTE Band 66	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	132072	1720	19.56	20.50	1.242		1.000	0.15	0.892	1.108
37	LTE Band 66	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	132572	1770	19.60	20.50	1.230		1.000	0.03	0.952	1.171
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Bottom Side	5mm	Ant 2	ECI 7	132322 132520	1745 1764.8	19.58	20.50	1.236		1.000	0.05	0.869	1.074
	LTE Band 66	20M	QPSK	50	0		Front	5mm	Ant 2	ECI 7	132322	1745	19.54	20.50	1.247		1.000	0.16	0.389	0.485
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	132322	1745	19.54	20.50	1.247		1.000	0.11	0.552	0.689
	LTE Band 66	20M	QPSK	50	0		Left Side	5mm	Ant 2	ECI 7	132322	1745	19.54	20.50	1.247		1.000	0.17	0.105	0.131
	LTE Band 66	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	132322	1745	19.54	20.50	1.247		1.000	0.15	0.626	0.781
	LTE Band 66	20M	QPSK	100	0		Bottom Side	5mm	Ant 2	ECI 7	132322	1745	19.45	20.50	1.274		1.000	0.05	0.607	0.773
	LTE Band 66	20M	QPSK	1	0		Front	5mm	Ant 8	ECI 7	132322	1745	16.84	17.50	1.164		1.000	-0.11	0.189	0.220
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 7	132322	1745	16.84	17.50	1.164		1.000	-0.14	0.312	0.363
	LTE Band 66	20M	QPSK	1	0		Left Side	5mm	Ant 8	ECI 7	132322	1745	16.84	17.50	1.164		1.000	-0.1	0.050	0.058
	LTE Band 66	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	132322	1745	16.84	17.50	1.164		1.000	0.16	0.462	0.538
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Top Side	5mm	Ant 8	ECI 7	132322 132520	1745 1764.8	16.54	17.50	1.247		1.000	0.02	0.402	0.501
	LTE Band 66	20M	QPSK	50	0		Front	5mm	Ant 8	ECI 7	132322	1745	16.65	17.50	1.216		1.000	0.12	0.176	0.214
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 8	ECI 7	132322	1745	16.65	17.50	1.216		1.000	0.03	0.289	0.351
	LTE Band 66	20M	QPSK	50	0		Left Side	5mm	Ant 8	ECI 7	132322	1745	16.65	17.50	1.216		1.000	-0.01	0.047	0.057
	LTE Band 66	20M	QPSK	50	0		Top Side	5mm	Ant 8	ECI 7	132322	1745	16.65	17.50	1.216		1.000	0.05	0.449	0.546
	LTE Band 66	20M	QPSK	1	0		Front	5mm	Ant 9	ECI 7	132322	1745	21.26	22.00	1.186		1.000	-0.08	0.140	0.166
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 9	ECI 7	132322	1745	21.26	22.00	1.186		1.000	-0.16	0.369	0.438
	LTE Band 66	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	132322	1745	21.26	22.00	1.186		1.000	-0.15	0.454	0.538
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Left Side	5mm	Ant 9	ECI 7	132322 132520	1745 1764.8	20.90	22.00	1.288		1.000	0.03	0.367	0.473
	LTE Band 66	20M	QPSK	1	0		Top Side	5mm	Ant 9	ECI 7	132322	1745	21.26	22.00	1.186		1.000	0.14	0.060	0.071
	LTE Band 66	20M	QPSK	50	0		Front	5mm	Ant 9	ECI 7	132322	1745	21.15	22.00	1.216		1.000	0.01	0.132	0.161



	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 9	ECI 7	132322	1745	21.15	22.00	1.216		1.000	0.05	0.353	0.429
	LTE Band 66	20M	QPSK	50	0		Left Side	5mm	Ant 9	ECI 7	132322	1745	21.15	22.00	1.216		1.000	0.13	0.432	0.525
	LTE Band 66	20M	QPSK	50	0		Top Side	5mm	Ant 9	ECI 7	132322	1745	21.15	22.00	1.216		1.000	-0.1	0.053	0.064
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	ECI 7	349000	1745	17.52	18.50	1.253		1.000	0.12	0.412	0.516
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	ECI 7	349000	1745	17.52	18.50	1.253		1.000	-0.1	0.685	0.858
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 2	ECI 7	349000	1745	17.52	18.50	1.253		1.000	0.14	0.113	0.142
38	FR1 n66	45M	QPSK	1	1	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	349000	1745	17.52	18.50	1.253		1.000	0.05	0.865	1.084
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	5mm	Ant 2	ECI 7	349000	1745	17.42	18.50	1.282		1.000	-0.14	0.373	0.478
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	5mm	Ant 2	ECI 7	349000	1745	17.42	18.50	1.282		1.000	0.03	0.664	0.851
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Side	5mm	Ant 2	ECI 7	349000	1745	17.42	18.50	1.282		1.000	0.09	0.102	0.131
	FR1 n66	45M	QPSK	120	60	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	349000	1745	17.42	18.50	1.282		1.000	-0.02	0.805	1.032
	FR1 n66	45M	QPSK	240	0	DFT-15	Back	5mm	Ant 2	ECI 7	349000	1745	17.39	18.50	1.291		1.000	0.09	0.645	0.833
	FR1 n66	45M	QPSK	240	0	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	349000	1745	17.39	18.50	1.291		1.000	-0.14	0.759	0.980
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	5mm	Ant 8	ECI 7	349000	1745	16.67	17.50	1.211		1.000	-0.04	0.172	0.208
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	ECI 7	349000	1745	16.67	17.50	1.211		1.000	0.1	0.329	0.398
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 8	ECI 7	349000	1745	16.67	17.50	1.211		1.000	-0.07	0.054	0.065
	FR1 n66	45M	QPSK	1	1	DFT-15	Top Side	5mm	Ant 8	ECI 7	349000	1745	16.67	17.50	1.211		1.000	-0.06	0.448	0.542
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	5mm	Ant 8	ECI 7	349000	1745	16.60	17.50	1.230		1.000	0.09	0.166	0.204
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	5mm	Ant 8	ECI 7	349000	1745	16.60	17.50	1.230		1.000	-0.07	0.308	0.379
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Side	5mm	Ant 8	ECI 7	349000	1745	16.60	17.50	1.230		1.000	-0.01	0.047	0.058
	FR1 n66	45M	QPSK	120	60	DFT-15	Top Side	5mm	Ant 8	ECI 7	349000	1745	16.60	17.50	1.230		1.000	-0.02	0.430	0.529
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	5mm	Ant 9	ECI 7	349000	1745	19.02	20.00	1.253		1.000	-0.11	0.158	0.198
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	ECI 7	349000	1745	19.02	20.00	1.253		1.000	-0.17	0.394	0.494
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 9	ECI 7	349000	1745	19.02	20.00	1.253		1.000	-0.07	0.452	0.566
	FR1 n66	45M	QPSK	1	1	DFT-15	Top Side	5mm	Ant 9	ECI 7	349000	1745	19.02	20.00	1.253		1.000	-0.05	0.057	0.071
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	5mm	Ant 9	ECI 7	349000	1745	18.95	20.00	1.274		1.000	-0.15	0.142	0.181
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	5mm	Ant 9	ECI 7	349000	1745	18.95	20.00	1.274		1.000	-0.02	0.385	0.490
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Side	5mm	Ant 9	ECI 7	349000	1745	18.95	20.00	1.274		1.000	0.15	0.433	0.551
	FR1 n66	45M	QPSK	120	60	DFT-15	Top Side	5mm	Ant 9	ECI 7	349000	1745	18.95	20.00	1.274		1.000	0.03	0.051	0.065
	GSM1900					GPRS 4TX Slot	Front	5mm	Ant 2	ECI 7	661	1880	20.67	21.80	1.297		1.000	-0.04	0.581	0.754
	GSM1900					GPRS 4TX Slot	Back	5mm	Ant 2	ECI 7	661	1880	20.67	21.80	1.297		1.000	-0.12	0.926	1.201
	GSM1900					GPRS 4TX Slot	Left Side	5mm	Ant 2	ECI 7	661	1880	20.67	21.80	1.297		1.000	0.09	0.171	0.222
	GSM1900					GPRS 4TX Slot	Bottom Side	5mm	Ant 2	ECI 7	661	1880	20.67	21.80	1.297		1.000	0.12	0.933	1.210
	GSM1900					GPRS 4TX Slot	Back	5mm	Ant 2	ECI 7	512	1850.2	20.66	21.80	1.300		1.000	0.13	0.876	1.139
	GSM1900					GPRS 4TX Slot	Back	5mm	Ant 2	ECI 7	810	1909.8	20.58	21.80	1.324		1.000	-0.02	0.846	1.120
39	GSM1900					GPRS 4TX Slot	Bottom Side	5mm	Ant 2	ECI 7	512	1850.2	20.66	21.80	1.300		1.000	-0.02	0.983	1.278
	GSM1900 Protective Cover					GPRS 4TX Slot	Bottom Side	5mm	Ant 2	ECI 7	512	1850.2	20.66	21.80	1.300		1.000	0.05	0.924	1.201
	GSM1900					GPRS 4TX Slot	Bottom Side	5mm	Ant 2	ECI 7	810	1909.8	20.58	21.80	1.324		1.000	0.11	0.905	1.199
	WCDMA II					RMC 12.2Kbps	Front	5mm	Ant 2	ECI 7	9400	1880	16.58	18.20	1.452		1.000	0.05	0.449	0.652
	WCDMA II					RMC 12.2Kbps	Back	5mm	Ant 2	ECI 7	9400	1880	16.58	18.20	1.452		1.000	-0.08	0.542	0.787
	WCDMA II					RMC 12.2Kbps	Left Side	5mm	Ant 2	ECI 7	9400	1880	16.58	18.20	1.452		1.000	-0.01	0.130	0.189
	WCDMA II					RMC 12.2Kbps	Bottom Side	5mm	Ant 2	ECI 7	9400	1880	16.58	18.20	1.452		1.000	-0.04	0.702	1.019
	WCDMA II					RMC 12.2Kbps	Bottom Side	5mm	Ant 2	ECI 7	9262	1852.4	16.51	18.20	1.476		1.000	-0.17	0.685	1.011
40	WCDMA II					RMC 12.2Kbps	Bottom Side	5mm	Ant 2	ECI 7	9538	1907.6	16.44	18.20	1.500		1.000	0.03	0.725	1.087
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 2	ECI 7	26340	1880	18.75	19.50	1.189		1.000	0.08	0.571	0.679
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	26340	1880	18.75	19.50	1.189		1.000	-0.16	0.784	0.932
	LTE Band 25	20M	QPSK	1	0		Left Side	5mm	Ant 2	ECI 7	26340	1880	18.75	19.50	1.189		1.000	0.12	0.185	0.220
41	LTE Band 25	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	26340	1880	18.75	19.50	1.189		1.000	-0.14	0.918	1.091
	LTE Band 2C	20M	QPSK	PCC:1 · 0 SCC:0 · 0			Bottom Side	5mm	Ant 2	ECI 7	18900 19098	1880 1899.8	18.40	19.50	1.288		1.000	0.08	0.806	1.038
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	26140	1860	18.67	19.50	1.211		1.000	0.15	0.752	0.910
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	26590	1905	18.58	19.50	1.236		1.000	0.07	0.728	0.900
	LTE Band 25	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	26140	1860	18.67	19.50	1.211		1.000	0.01	0.835	1.011
	LTE Band 25	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	26590	1905	18.58	19.50	1.236		1.000	-0.08	0.840	1.038
	LTE Band 25	20M	QPSK	50	0		Front	5mm	Ant 2	ECI 7	26340	1880	18.70	19.50	1.202		1.000	-0.13	0.535	0.643



	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	26340	1880	18.70	19.50	1.202		1.000	0.1	0.756	0.909
	LTE Band 25	20M	QPSK	50	0		Left Side	5mm	Ant 2	ECI 7	26340	1880	18.70	19.50	1.202		1.000	-0.08	0.169	0.203
	LTE Band 25	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	26340	1880	18.70	19.50	1.202		1.000	0.16	0.858	1.032
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	26140	1860	18.60	19.50	1.230		1.000	0.05	0.711	0.875
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	26590	1905	18.57	19.50	1.239		1.000	0.17	0.705	0.873
	LTE Band 25	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	26140	1860	18.60	19.50	1.230		1.000	0.05	0.825	1.015
	LTE Band 25	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	26590	1905	18.57	19.50	1.239		1.000	0.02	0.811	1.005
	LTE Band 25	20M	QPSK	100	0		Back	5mm	Ant 2	ECI 7	26340	1880	18.68	19.50	1.208		1.000	0.08	0.711	0.859
	LTE Band 25	20M	QPSK	100	0		Bottom Side	5mm	Ant 2	ECI 7	26340	1880	18.68	19.50	1.208		1.000	0.05	0.798	0.964
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 8	ECI 7	26340	1880	17.74	18.50	1.191		1.000	0.08	0.247	0.294
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 7	26340	1880	17.74	18.50	1.191		1.000	0.14	0.367	0.437
	LTE Band 25	20M	QPSK	1	0		Left Side	5mm	Ant 8	ECI 7	26340	1880	17.74	18.50	1.191		1.000	-0.09	0.140	0.167
	LTE Band 25	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	26340	1880	17.74	18.50	1.191		1.000	-0.1	0.437	0.521
	LTE Band 2C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Top Side	5mm	Ant 8	ECI 7	18900 19098	1880 1899.8	17.53	18.50	1.250		1.000	0.11	0.310	0.388
	LTE Band 25	20M	QPSK	50	0		Front	5mm	Ant 8	ECI 7	26340	1880	17.72	18.50	1.197		1.000	-0.11	0.234	0.280
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 8	ECI 7	26340	1880	17.72	18.50	1.197		1.000	0.08	0.352	0.421
	LTE Band 25	20M	QPSK	50	0		Left Side	5mm	Ant 8	ECI 7	26340	1880	17.72	18.50	1.197		1.000	0.11	0.128	0.153
	LTE Band 25	20M	QPSK	50	0		Top Side	5mm	Ant 8	ECI 7	26340	1880	17.72	18.50	1.197		1.000	-0.02	0.426	0.510
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 9	ECI 7	26340	1880	18.17	19.00	1.211		1.000	0.15	0.192	0.232
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 9	ECI 7	26340	1880	18.17	19.00	1.211		1.000	-0.07	0.459	0.556
	LTE Band 2C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Back	5mm	Ant 9	ECI 7	18900 19098	1880 1899.8	18.00	19.00	1.259		1.000	0.04	0.420	0.529
	LTE Band 25	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	26340	1880	18.17	19.00	1.211		1.000	-0.11	0.390	0.472
	LTE Band 25	20M	QPSK	1	0		Top Side	5mm	Ant 9	ECI 7	26340	1880	18.17	19.00	1.211		1.000	0.09	0.056	0.068
	LTE Band 25	20M	QPSK	50	0		Front	5mm	Ant 9	ECI 7	26340	1880	18.05	19.00	1.245		1.000	-0.07	0.182	0.227
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 9	ECI 7	26340	1880	18.05	19.00	1.245		1.000	-0.03	0.437	0.544
	LTE Band 25	20M	QPSK	50	0		Left Side	5mm	Ant 9	ECI 7	26340	1880	18.05	19.00	1.245		1.000	-0.06	0.375	0.467
	LTE Band 25	20M	QPSK	50	0		Top Side	5mm	Ant 9	ECI 7	26340	1880	18.05	19.00	1.245		1.000	-0.17	0.053	0.066
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	ECI 7	376000	1880	17.10	18.00	1.230		1.000	0.15	0.564	0.694
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	ECI 7	376000	1880	17.10	18.00	1.230		1.000	0.09	0.834	1.026
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 2	ECI 7	376000	1880	17.10	18.00	1.230		1.000	0.07	0.186	0.229
42	FR1 n2	40M	QPSK	1	1	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	376000	1880	17.10	18.00	1.230		1.000	-0.09	0.931	1.145
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	5mm	Ant 2	ECI 7	376000	1880	17.07	18.00	1.239		1.000	0.14	0.539	0.668
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	5mm	Ant 2	ECI 7	376000	1880	17.07	18.00	1.239		1.000	0.07	0.809	1.002
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Side	5mm	Ant 2	ECI 7	376000	1880	17.07	18.00	1.239		1.000	-0.09	0.177	0.219
	FR1 n2	40M	QPSK	108	54	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	376000	1880	17.07	18.00	1.239		1.000	0.16	0.912	1.130
	FR1 n2	40M	QPSK	216	0	DFT-15	Back	5mm	Ant 2	ECI 7	376000	1880	17.01	18.00	1.256		1.000	0.05	0.752	0.945
	FR1 n2	40M	QPSK	216	0	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	376000	1880	17.01	18.00	1.256		1.000	-0.11	0.886	1.113
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	5mm	Ant 8	ECI 7	376000	1880	17.75	18.50	1.189		1.000	-0.16	0.212	0.252
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	ECI 7	376000	1880	17.75	18.50	1.189		1.000	0.04	0.349	0.415
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 8	ECI 7	376000	1880	17.75	18.50	1.189		1.000	0.1	0.117	0.139
	FR1 n2	40M	QPSK	1	1	DFT-15	Top Side	5mm	Ant 8	ECI 7	376000	1880	17.75	18.50	1.189		1.000	0.16	0.458	0.544
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	5mm	Ant 8	ECI 7	376000	1880	17.73	18.50	1.194		1.000	0.13	0.207	0.247
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	5mm	Ant 8	ECI 7	376000	1880	17.73	18.50	1.194		1.000	-0.04	0.335	0.400
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Side	5mm	Ant 8	ECI 7	376000	1880	17.73	18.50	1.194		1.000	0.04	0.110	0.131
	FR1 n2	40M	QPSK	108	54	DFT-15	Top Side	5mm	Ant 8	ECI 7	376000	1880	17.73	18.50	1.194		1.000	0.17	0.443	0.529
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	5mm	Ant 9	ECI 7	376000	1880	17.26	18.00	1.186		1.000	0.06	0.164	0.194
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	ECI 7	376000	1880	17.26	18.00	1.186		1.000	-0.16	0.443	0.525
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 9	ECI 7	376000	1880	17.26	18.00	1.186		1.000	-0.16	0.367	0.435
	FR1 n2	40M	QPSK	1	1	DFT-15	Top Side	5mm	Ant 9	ECI 7	376000	1880	17.26	18.00	1.186		1.000	0.15	0.052	0.062
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	5mm	Ant 9	ECI 7	376000	1880	17.23	18.00	1.194		1.000	0.16	0.151	0.180
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	5mm	Ant 9	ECI 7	376000	1880	17.23	18.00	1.194		1.000	0.14	0.389	0.464
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Side	5mm	Ant 9	ECI 7	376000	1880	17.23	18.00	1.194		1.000	-0.01	0.345	0.412
	FR1 n2	40M	QPSK	108	54	DFT-15	Top Side	5mm	Ant 9	ECI 7	376000	1880	17.23	18.00	1.194		1.000	-0.15	0.049	0.059
	LTE Band 7	20M	QPSK	1	0		Front	5mm	Ant 2	ECI 7	21100	2535	18.29	19.00	1.178		1.000	-0.02	0.467	0.550



	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	21100	2535	18.29	19.00	1.178		1.000	0.03	0.671	0.790
	LTE Band 7	20M	QPSK	1	0		Left Side	5mm	Ant 2	ECI 7	21100	2535	18.29	19.00	1.178		1.000	-0.06	0.106	0.125
	LTE Band 7	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	21100	2535	18.29	19.00	1.178		1.000	-0.04	0.868	1.022
	LTE Band 7	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	20850	2510	18.17	19.00	1.211		1.000	-0.17	0.888	1.075
43	LTE Band 7	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	21350	2560	18.14	19.00	1.219		1.000	-0.08	0.915	1.115
	LTE Band 7C	20M	QPSK	PCC:1.0 SCC:0.0	0		Bottom Side	5mm	Ant 2	ECI 7	21100 21298	2535 2554.8	18.13	19.00	1.222		1.000	0.05	0.848	1.036
	LTE Band 7	20M	QPSK	50	0		Front	5mm	Ant 2	ECI 7	21100	2535	18.26	19.00	1.186		1.000	-0.01	0.452	0.536
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	21100	2535	18.26	19.00	1.186		1.000	-0.13	0.653	0.774
	LTE Band 7	20M	QPSK	50	0		Left Side	5mm	Ant 2	ECI 7	21100	2535	18.26	19.00	1.186		1.000	0.06	0.092	0.109
	LTE Band 7	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	21100	2535	18.26	19.00	1.186		1.000	-0.03	0.835	0.990
	LTE Band 7	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	20850	2510	18.23	19.00	1.194		1.000	0.01	0.859	1.026
	LTE Band 7	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	21350	2560	18.21	19.00	1.199		1.000	0.08	0.897	1.076
	LTE Band 7	20M	QPSK	100	0		Bottom Side	5mm	Ant 2	ECI 7	21100	2535	18.21	19.00	1.199		1.000	0.02	0.795	0.954
	LTE Band 7	20M	QPSK	1	0		Front	5mm	Ant 8	ECI 7	21100	2535	16.78	17.50	1.180		1.000	-0.16	0.227	0.268
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 7	21100	2535	16.78	17.50	1.180		1.000	-0.06	0.452	0.534
	LTE Band 7	20M	QPSK	1	0		Left Side	5mm	Ant 8	ECI 7	21100	2535	16.78	17.50	1.180		1.000	-0.09	0.083	0.098
	LTE Band 7	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	21100	2535	16.78	17.50	1.180		1.000	-0.01	0.463	0.546
	LTE Band 7C	20M	QPSK	PCC:1.0 SCC:0.0	0		Top Side	5mm	Ant 8	ECI 7	21100 21298	2535 2554.8	16.64	17.50	1.219		1.000	0.08	0.425	0.518
	LTE Band 7	20M	QPSK	50	0		Front	5mm	Ant 8	ECI 7	21100	2535	16.75	17.50	1.189		1.000	0.12	0.211	0.251
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 8	ECI 7	21100	2535	16.75	17.50	1.189		1.000	0.1	0.442	0.525
	LTE Band 7	20M	QPSK	50	0		Left Side	5mm	Ant 8	ECI 7	21100	2535	16.75	17.50	1.189		1.000	0.03	0.078	0.093
	LTE Band 7	20M	QPSK	50	0		Top Side	5mm	Ant 8	ECI 7	21100	2535	16.75	17.50	1.189		1.000	-0.16	0.457	0.543
	LTE Band 7	20M	QPSK	1	0		Front	5mm	Ant 9	ECI 7	21100	2535	17.72	18.50	1.197		1.000	-0.08	0.108	0.129
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 9	ECI 7	21100	2535	17.72	18.50	1.197		1.000	0.05	0.231	0.276
	LTE Band 7	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	21100	2535	17.72	18.50	1.197		1.000	0.07	0.425	0.509
	LTE Band 7C	20M	QPSK	PCC:1.0 SCC:0.0	0		Left Side	5mm	Ant 9	ECI 7	21100 21298	2535 2554.8	17.69	18.50	1.205		1.000	0.03	0.395	0.476
	LTE Band 7	20M	QPSK	1	0		Top Side	5mm	Ant 9	ECI 7	21100	2535	17.72	18.50	1.197		1.000	0.08	0.055	0.066
	LTE Band 7	20M	QPSK	50	0		Front	5mm	Ant 9	ECI 7	21100	2535	17.67	18.50	1.211		1.000	-0.04	0.101	0.122
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 9	ECI 7	21100	2535	17.67	18.50	1.211		1.000	0.09	0.221	0.268
	LTE Band 7	20M	QPSK	50	0		Left Side	5mm	Ant 9	ECI 7	21100	2535	17.67	18.50	1.211		1.000	-0.17	0.411	0.498
	LTE Band 7	20M	QPSK	50	0		Top Side	5mm	Ant 9	ECI 7	21100	2535	17.67	18.50	1.211		1.000	0.1	0.052	0.063
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 2	ECI 7	40620	2593	20.28	21.00	1.180	62.9	1.006	0.13	0.469	0.557
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	40620	2593	20.28	21.00	1.180	62.9	1.006	0.05	0.770	0.914
	LTE Band 41	20M	QPSK	1	0		Left Side	5mm	Ant 2	ECI 7	40620	2593	20.28	21.00	1.180	62.9	1.006	0	0.089	0.106
	LTE Band 41	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	40620	2593	20.28	21.00	1.180	62.9	1.006	0.12	0.885	1.051
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	39750	2506	20.23	21.00	1.194	62.9	1.006	-0.06	0.675	0.811
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	40185	2549.5	20.15	21.00	1.216	62.9	1.006	0.05	0.662	0.810
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	41055	2636.5	20.15	21.00	1.216	62.9	1.006	0.02	0.636	0.778
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	ECI 7	41490	2680	20.13	21.00	1.222	62.9	1.006	-0.01	0.652	0.801
	LTE Band 41	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	39750	2506	20.23	21.00	1.194	62.9	1.006	-0.07	0.756	0.908
	LTE Band 41	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	40185	2549.5	20.15	21.00	1.216	62.9	1.006	-0.12	0.791	0.968
44	LTE Band 41	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	41055	2636.5	20.15	21.00	1.216	62.9	1.006	-0.08	0.894	1.094
	LTE Band 41 PC2	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	41055	2636.5	21.62	22.60	1.253	42.9	1.009	-0.12	0.841	1.063
	LTE Band 41C	20M	QPSK	PCC:1.0 SCC:0.0	0		Bottom Side	5mm	Ant 2	ECI 7	40620 40818	2593 2612.8	20.07	21.00	1.239	62.9	1.006	0.08	0.825	1.028
	LTE Band 41	20M	QPSK	1	0		Bottom Side	5mm	Ant 2	ECI 7	41490	2680	20.13	21.00	1.222	62.9	1.006	-0.01	0.820	1.008
	LTE Band 41	20M	QPSK	50	0		Front	5mm	Ant 2	ECI 7	40620	2593	20.16	21.00	1.213	62.9	1.006	0.13	0.435	0.531
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	40620	2593	20.16	21.00	1.213	62.9	1.006	-0.03	0.752	0.918
	LTE Band 41	20M	QPSK	50	0		Left Side	5mm	Ant 2	ECI 7	40620	2593	20.16	21.00	1.213	62.9	1.006	0.12	0.083	0.101
	LTE Band 41	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	40620	2593	20.16	21.00	1.213	62.9	1.006	-0.04	0.851	1.039
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	39750	2506	19.98	21.00	1.265	62.9	1.006	0.05	0.662	0.842
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	40185	2549.5	20.05	21.00	1.245	62.9	1.006	0.18	0.652	0.816
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	41055	2636.5	20.11	21.00	1.227	62.9	1.006	0.07	0.611	0.754
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	ECI 7	41490	2680	20.05	21.00	1.245	62.9	1.006	0.02	0.619	0.775



	LTE Band 41	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	39750	2506	19.98	21.00	1.265	62.9	1.006	-0.08	0.711	0.905
	LTE Band 41	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	40185	2549.5	20.05	21.00	1.245	62.9	1.006	0.12	0.725	0.908
	LTE Band 41	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	41055	2636.5	20.11	21.00	1.227	62.9	1.006	-0.15	0.835	1.031
	LTE Band 41	20M	QPSK	50	0		Bottom Side	5mm	Ant 2	ECI 7	41490	2680	20.05	21.00	1.245	62.9	1.006	0.02	0.785	0.983
	LTE Band 41	20M	QPSK	100	0		Back	5mm	Ant 2	ECI 7	40620	2593	20.11	21.00	1.227	62.9	1.006	0.02	0.611	0.754
	LTE Band 41	20M	QPSK	100	0		Bottom Side	5mm	Ant 2	ECI 7	40620	2593	20.11	21.00	1.227	62.9	1.006	0.13	0.658	0.813
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 8	ECI 7	40620	2593	19.24	20.00	1.191	62.9	1.006	0.08	0.183	0.219
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 7	40620	2593	19.24	20.00	1.191	62.9	1.006	0.05	0.427	0.512
	LTE Band 41	20M	QPSK	1	0		Left Side	5mm	Ant 8	ECI 7	40620	2593	19.24	20.00	1.191	62.9	1.006	-0.11	0.052	0.062
	LTE Band 41	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	40620	2593	19.24	20.00	1.191	62.9	1.006	0.08	0.449	0.538
	LTE Band 41	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	39750	2506	19.18	20.00	1.208	62.9	1.006	-0.11	0.368	0.447
	LTE Band 41	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	40185	2549.5	18.99	20.00	1.262	62.9	1.006	0.16	0.364	0.462
	LTE Band 41	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	41055	2636.5	19.00	20.00	1.259	62.9	1.006	0.1	0.407	0.515
	LTE Band 41	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	41490	2680	19.10	20.00	1.230	62.9	1.006	-0.16	0.446	0.552
	LTE Band 41 PC2	20M	QPSK	1	0		Top Side	5mm	Ant 8	ECI 7	41490	2680	20.59	21.60	1.262	42.9	1.009	0.17	0.431	0.549
	LTE Band 41C	20M	QPSK	PCC:1.0 SCC:0.0			Top Side	5mm	Ant 8	ECI 7	40620 40818	2593 2612.8	19.10	20.00	1.230	62.9	1.006	0.06	0.428	0.530
	LTE Band 41	20M	QPSK	50	0		Front	5mm	Ant 8	ECI 7	40620	2593	18.97	20.00	1.268	62.9	1.006	0.08	0.175	0.223
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 8	ECI 7	40620	2593	18.97	20.00	1.268	62.9	1.006	0.09	0.418	0.533
	LTE Band 41	20M	QPSK	50	0		Left Side	5mm	Ant 8	ECI 7	40620	2593	18.97	20.00	1.268	62.9	1.006	-0.06	0.047	0.060
	LTE Band 41	20M	QPSK	50	0		Top Side	5mm	Ant 8	ECI 7	40620	2593	18.97	20.00	1.268	62.9	1.006	0.08	0.428	0.546
	LTE Band 41	20M	QPSK	100	0		Top Side	5mm	Ant 8	ECI 7	40620	2593	18.89	20.00	1.291	62.9	1.006	0.03	0.397	0.516
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 9	ECI 7	40620	2593	18.35	19.00	1.161	62.9	1.006	0.13	0.109	0.127
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 9	ECI 7	40620	2593	18.35	19.00	1.161	62.9	1.006	0.04	0.237	0.277
	LTE Band 41	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	40620	2593	18.35	19.00	1.161	62.9	1.006	0.12	0.529	0.618
	LTE Band 41	20M	QPSK	1	0		Top Side	5mm	Ant 9	ECI 7	40620	2593	18.35	19.00	1.161	62.9	1.006	-0.13	0.072	0.084
	LTE Band 41	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	39750	2506	18.26	19.00	1.186	62.9	1.006	0.05	0.340	0.406
	LTE Band 41	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	40185	2549.5	18.25	19.00	1.189	62.9	1.006	-0.1	0.298	0.356
	LTE Band 41	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	41055	2636.5	18.18	19.00	1.208	62.9	1.006	0.13	0.408	0.496
	LTE Band 41	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	41490	2680	18.10	19.00	1.230	62.9	1.006	-0.15	0.505	0.625
	LTE Band 41 PC2	20M	QPSK	1	0		Left Side	5mm	Ant 9	ECI 7	41490	2680	19.81	20.60	1.199	42.9	1.009	-0.15	0.493	0.597
	LTE Band 41C	20M	QPSK	PCC:1.0 SCC:0.0			Left Side	5mm	Ant 9	ECI 7	40620 40818	2593 2612.8	18.04	19.00	1.247	62.9	1.006	0.02	0.364	0.457
	LTE Band 41	20M	QPSK	50	0		Front	5mm	Ant 9	ECI 7	40620	2593	18.22	19.00	1.197	62.9	1.006	0.02	0.102	0.123
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 9	ECI 7	40620	2593	18.22	19.00	1.197	62.9	1.006	0.08	0.224	0.270
	LTE Band 41	20M	QPSK	50	0		Left Side	5mm	Ant 9	ECI 7	40620	2593	18.22	19.00	1.197	62.9	1.006	-0.17	0.501	0.603
	LTE Band 41	20M	QPSK	50	0		Top Side	5mm	Ant 9	ECI 7	40620	2593	18.22	19.00	1.197	62.9	1.006	-0.13	0.067	0.081
	LTE Band 41	20M	QPSK	100	0		Left Side	5mm	Ant 9	ECI 7	40620	2593	18.10	19.00	1.230	62.9	1.006	0.05	0.475	0.588
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	ECI 7	507000	2535	16.11	17.00	1.227		1.000	0.01	0.417	0.512
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	ECI 7	507000	2535	16.11	17.00	1.227		1.000	0.04	0.780	0.957
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 2	ECI 7	507000	2535	16.11	17.00	1.227		1.000	0.09	0.097	0.119
45	FR1 n7	50M	QPSK	1	1	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	507000	2535	16.11	17.00	1.227		1.000	0.09	0.827	1.015
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	5mm	Ant 2	ECI 7	507000	2535	16.07	17.00	1.239		1.000	-0.16	0.405	0.502
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	5mm	Ant 2	ECI 7	507000	2535	16.07	17.00	1.239		1.000	-0.06	0.748	0.927
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	5mm	Ant 2	ECI 7	507000	2535	16.07	17.00	1.239		1.000	0.09	0.090	0.111
	FR1 n7	50M	QPSK	135	68	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	507000	2535	16.07	17.00	1.239		1.000	0.01	0.740	0.917
	FR1 n7	50M	QPSK	270	0	DFT-15	Back	5mm	Ant 2	ECI 7	507000	2535	16.03	17.00	1.250		1.000	0.05	0.671	0.839
	FR1 n7	50M	QPSK	270	0	DFT-15	Bottom Side	5mm	Ant 2	ECI 7	507000	2535	16.03	17.00	1.250		1.000	0.09	0.685	0.856
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	5mm	Ant 8	ECI 7	507000	2535	15.66	16.50	1.213		1.000	0.05	0.145	0.176
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	ECI 7	507000	2535	15.66	16.50	1.213		1.000	-0.05	0.417	0.506
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 8	ECI 7	507000	2535	15.66	16.50	1.213		1.000	-0.03	0.089	0.108
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	5mm	Ant 8	ECI 7	507000	2535	15.66	16.50	1.213		1.000	-0.04	0.450	0.546
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	5mm	Ant 8	ECI 7	507000	2535	15.60	16.50	1.230		1.000	0.09	0.132	0.162
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	5mm	Ant 8	ECI 7	507000	2535	15.60	16.50	1.230		1.000	-0.07	0.401	0.493
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	5mm	Ant 8	ECI 7	507000	2535	15.60	16.50	1.230		1.000	-0.1	0.086	0.106
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	5mm	Ant 8	ECI 7	507000	2535	15.60	16.50	1.230		1.000	0.08	0.429	0.528



	FR1 n7	50M	QPSK	1	1	DFT-15	Front	5mm	Ant 9	ECI 7	507000	2535	16.96	18.00	1.271		1.000	-0.11	0.176	0.224
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	ECI 7	507000	2535	16.96	18.00	1.271		1.000	0.1	0.339	0.431
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	5mm	Ant 9	ECI 7	507000	2535	16.96	18.00	1.271		1.000	-0.04	0.468	0.595
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	5mm	Ant 9	ECI 7	507000	2535	16.96	18.00	1.271		1.000	-0.05	0.076	0.097
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	5mm	Ant 9	ECI 7	507000	2535	16.88	18.00	1.294		1.000	-0.04	0.170	0.220
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	5mm	Ant 9	ECI 7	507000	2535	16.88	18.00	1.294		1.000	0.05	0.324	0.419
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	5mm	Ant 9	ECI 7	507000	2535	16.88	18.00	1.294		1.000	-0.15	0.447	0.579
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	5mm	Ant 9	ECI 7	507000	2535	16.88	18.00	1.294		1.000	-0.06	0.075	0.097
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 2	ECI 7	518598	2592.99	16.13	17.00	1.222		1.000	-0.1	0.553	0.676
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 2	ECI 7	518598	2592.99	16.13	17.00	1.222		1.000	0.17	0.812	0.992
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	5mm	Ant 2	ECI 7	518598	2592.99	16.13	17.00	1.222		1.000	-0.05	0.148	0.181
46	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	5mm	Ant 2	ECI 7	518598	2592.99	16.13	17.00	1.222		1.000	-0.16	0.959	1.172
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 2	ECI 7	518598	2592.99	16.08	17.00	1.236		1.000	-0.09	0.531	0.656
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 2	ECI 7	518598	2592.99	16.08	17.00	1.236		1.000	-0.14	0.785	0.970
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 2	ECI 7	518598	2592.99	16.08	17.00	1.236		1.000	0.16	0.131	0.162
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	5mm	Ant 2	ECI 7	518598	2592.99	16.08	17.00	1.236		1.000	-0.1	0.925	1.143
	FR1 n41	100M	QPSK	270	0	DFT-30	Front	5mm	Ant 2	ECI 7	518598	2592.99	16.07	17.00	1.239		1.000	0.06	0.511	0.633
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 2	ECI 7	518598	2592.99	16.07	17.00	1.239		1.000	0.15	0.525	0.650
	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Side	5mm	Ant 2	ECI 7	518598	2592.99	16.07	17.00	1.239		1.000	0.03	0.857	1.062
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 8	ECI 7	518598	2592.99	17.10	18.00	1.230		1.000	0.05	0.200	0.246
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 8	ECI 7	518598	2592.99	17.10	18.00	1.230		1.000	0.06	0.395	0.486
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	5mm	Ant 8	ECI 7	518598	2592.99	17.10	18.00	1.230		1.000	0.04	0.099	0.122
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	5mm	Ant 8	ECI 7	518598	2592.99	17.10	18.00	1.230		1.000	0.1	0.442	0.544
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 8	ECI 7	518598	2592.99	17.05	18.00	1.245		1.000	-0.14	0.185	0.230
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 8	ECI 7	518598	2592.99	17.05	18.00	1.245		1.000	-0.05	0.361	0.449
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 8	ECI 7	518598	2592.99	17.05	18.00	1.245		1.000	-0.12	0.093	0.116
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 8	ECI 7	518598	2592.99	17.05	18.00	1.245		1.000	-0.15	0.411	0.511
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 9	ECI 7	518598	2592.99	16.77	17.50	1.183		1.000	0.13	0.111	0.131
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 9	ECI 7	518598	2592.99	16.77	17.50	1.183		1.000	-0.03	0.322	0.381
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	5mm	Ant 9	ECI 7	518598	2592.99	16.77	17.50	1.183		1.000	-0.07	0.413	0.489
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	5mm	Ant 9	ECI 7	518598	2592.99	16.77	17.50	1.183		1.000	0.15	0.079	0.093
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 9	ECI 7	518598	2592.99	16.72	17.50	1.197		1.000	-0.17	0.102	0.122
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 9	ECI 7	518598	2592.99	16.72	17.50	1.197		1.000	0.03	0.306	0.366
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 9	ECI 7	518598	2592.99	16.72	17.50	1.197		1.000	0.15	0.419	0.501
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 9	ECI 7	518598	2592.99	16.72	17.50	1.197		1.000	-0.13	0.076	0.091
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 6	ECI 7	518598	2592.99	15.68	17.00	1.355		1.000	-0.01	0.086	0.117
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 6	ECI 7	518598	2592.99	15.68	17.00	1.355		1.000	0.1	0.220	0.298
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	5mm	Ant 6	ECI 7	518598	2592.99	15.68	17.00	1.355		1.000	0.07	0.456	0.618
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	5mm	Ant 6	ECI 7	518598	2592.99	15.68	17.00	1.355		1.000	0.05	0.027	0.037
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 6	ECI 7	518598	2592.99	15.63	17.00	1.371		1.000	-0.16	0.084	0.115
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 6	ECI 7	518598	2592.99	15.63	17.00	1.371		1.000	-0.16	0.218	0.299
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	5mm	Ant 6	ECI 7	518598	2592.99	15.63	17.00	1.371		1.000	-0.07	0.442	0.606
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 6	ECI 7	518598	2592.99	15.63	17.00	1.371		1.000	0.13	0.024	0.033
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Side	5mm	Ant 6	ECI 7	518598	2592.99	15.59	17.00	1.384		1.000	0.05	0.428	0.592
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 4	ECI 7	42590	3500	17.02	18.50	1.406	62.9	1.006	0.04	0.198	0.280
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 4	ECI 7	42590	3500	17.02	18.50	1.406	62.9	1.006	0.13	0.246	0.348
	LTE Band 42	20M	QPSK	1	0		Left Side	5mm	Ant 4	ECI 7	42590	3500	17.02	18.50	1.406	62.9	1.006	0.12	0.247	0.349
	LTE Band 42	20M	QPSK	1	0		Top Side	5mm	Ant 4	ECI 7	42590	3500	17.02	18.50	1.406	62.9	1.006	-0.15	0.380	0.538
	LTE Band 42C	20M	QPSK	PCC:1,0 SCC:0,0			Top Side	5mm	Ant 4	ECI 7	42590 42788	3500 3519.8	16.89	18.50	1.449	62.9	1.006	0.03	0.352	0.513
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 4	ECI 7	42590	3500	16.92	18.50	1.439	62.9	1.006	0.11	0.175	0.253
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 4	ECI 7	42590	3500	16.92	18.50	1.439	62.9	1.006	-0.06	0.225	0.326
	LTE Band 42	20M	QPSK	50	0		Left Side	5mm	Ant 4	ECI 7	42590	3500	16.92	18.50	1.439	62.9	1.006	0.05	0.231	0.334
	LTE Band 42	20M	QPSK	50	0		Top Side	5mm	Ant 4	ECI 7	42590	3500	16.92	18.50	1.439	62.9	1.006	0.06	0.345	0.499
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 5	ECI 7	42590	3500	20.74	21.50	1.191	62.9	1.006	0.15	0.222	0.266



47	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 5	ECI 7	42590	3500	20.74	21.50	1.191	62.9	1.006	0.01	0.455	0.545
	LTE Band 42	20M	QPSK	1	0		Right Side	5mm	Ant 5	ECI 7	42590	3500	20.74	21.50	1.191	62.9	1.006	0.04	0.311	0.373
	LTE Band 42	20M	QPSK	1	0		Top Side	5mm	Ant 5	ECI 7	42590	3500	20.74	21.50	1.191	62.9	1.006	-0.1	0.267	0.320
	LTE Band 42C	20M	QPSK	PCC:1.0 SCC:0.0			Back	5mm	Ant 5	ECI 7	42590 42788	3500 3519.8	20.45	21.50	1.274	62.9	1.006	-0.01	0.215	0.275
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 5	ECI 7	42590	3500	20.61	21.50	1.227	62.9	1.006	0.03	0.211	0.261
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 5	ECI 7	42590	3500	20.61	21.50	1.227	62.9	1.006	0.07	0.436	0.538
	LTE Band 42	20M	QPSK	50	0		Right Side	5mm	Ant 5	ECI 7	42590	3500	20.61	21.50	1.227	62.9	1.006	-0.01	0.301	0.372
	LTE Band 42	20M	QPSK	50	0		Top Side	5mm	Ant 5	ECI 7	42590	3500	20.61	21.50	1.227	62.9	1.006	-0.11	0.259	0.320
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 7	ECI 7	42590	3500	22.31	23.00	1.172	62.9	1.006	-0.06	0.215	0.254
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 7	ECI 7	42590	3500	22.31	23.00	1.172	62.9	1.006	0.04	0.330	0.389
	LTE Band 42	20M	QPSK	1	0		Right Side	5mm	Ant 7	ECI 7	42590	3500	22.31	23.00	1.172	62.9	1.006	-0.12	0.216	0.255
	LTE Band 42	20M	QPSK	1	0		Top Side	5mm	Ant 7	ECI 7	42590	3500	22.31	23.00	1.172	62.9	1.006	-0.04	0.435	0.513
	LTE Band 42C	20M	QPSK	PCC:1.0 SCC:0.0			Top Side	5mm	Ant 7	ECI 7	42590 42788	3500 3519.8	22.04	23.00	1.247	62.9	1.006	0.05	0.348	0.437
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 7	ECI 7	42590	3500	22.25	23.00	1.189	62.9	1.006	-0.12	0.201	0.240
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 7	ECI 7	42590	3500	22.25	23.00	1.189	62.9	1.006	0.07	0.315	0.377
	LTE Band 42	20M	QPSK	50	0		Right Side	5mm	Ant 7	ECI 7	42590	3500	22.25	23.00	1.189	62.9	1.006	0.07	0.204	0.244
	LTE Band 42	20M	QPSK	50	0		Top Side	5mm	Ant 7	ECI 7	42590	3500	22.25	23.00	1.189	62.9	1.006	0.11	0.409	0.489
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 11	ECI 7	42590	3500	17.02	18.00	1.253	62.9	1.006	-0.04	0.007	0.009
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 11	ECI 7	42590	3500	17.02	18.00	1.253	62.9	1.006	-0.06	0.415	0.523
	LTE Band 42C	20M	QPSK	PCC:1.0 SCC:0.0			Back	5mm	Ant 11	ECI 7	42590 42788	3500 3519.8	16.90	18.00	1.288	62.9	1.006	0.05	0.387	0.502
	LTE Band 42	20M	QPSK	1	0		Left Side	5mm	Ant 11	ECI 7	42590	3500	17.02	18.00	1.253	62.9	1.006	0	0.085	0.107
	LTE Band 42	20M	QPSK	1	0		Top Side	5mm	Ant 11	ECI 7	42590	3500	17.02	18.00	1.253	62.9	1.006	-0.17	0.010	0.013
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 11	ECI 7	42590	3500	16.87	18.00	1.297	62.9	1.006	0.16	0.006	0.008
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 11	ECI 7	42590	3500	16.87	18.00	1.297	62.9	1.006	0.04	0.375	0.489
	LTE Band 42	20M	QPSK	50	0		Left Side	5mm	Ant 11	ECI 7	42590	3500	16.87	18.00	1.297	62.9	1.006	0.03	0.081	0.106
	LTE Band 42	20M	QPSK	50	0		Top Side	5mm	Ant 11	ECI 7	42590	3500	16.87	18.00	1.297	62.9	1.006	0.06	0.009	0.012
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 4	ECI 7	56000	3840	18.76	19.50	1.186		1.000	-0.02	0.331	0.392
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 4	ECI 7	56000	3840	18.76	19.50	1.186		1.000	-0.07	0.369	0.438
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	5mm	Ant 4	ECI 7	56000	3840	18.76	19.50	1.186		1.000	0.13	0.432	0.512
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	5mm	Ant 4	ECI 7	56000	3840	18.76	19.50	1.186		1.000	0.14	0.446	0.529
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 4	ECI 7	56000	3840	18.72	19.50	1.197		1.000	-0.11	0.316	0.378
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 4	ECI 7	56000	3840	18.72	19.50	1.197		1.000	0.03	0.342	0.409
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 4	ECI 7	56000	3840	18.72	19.50	1.197		1.000	0.08	0.408	0.488
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 4	ECI 7	56000	3840	18.72	19.50	1.197		1.000	-0.1	0.422	0.505
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 4	ECI 7	56000	3840	18.70	19.50	1.202		1.000	0.18	0.325	0.391
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Side	5mm	Ant 4	ECI 7	56000	3840	18.70	19.50	1.202		1.000	-0.02	0.378	0.454
	FR1 n77	100M	QPSK	270	0	DFT-30	Top Side	5mm	Ant 4	ECI 7	56000	3840	18.70	19.50	1.202		1.000	0.04	0.405	0.487
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 5	ECI 7	56000	3840	18.96	19.00	1.009		1.000	0.04	0.234	0.236
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 5	ECI 7	56000	3840	18.96	19.00	1.009		1.000	-0.09	0.370	0.373
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	5mm	Ant 5	ECI 7	56000	3840	18.96	19.00	1.009		1.000	-0.17	0.283	0.286
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	5mm	Ant 5	ECI 7	56000	3840	18.96	19.00	1.009		1.000	0.02	0.527	0.532
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 5	ECI 7	56000	3840	18.91	19.00	1.021		1.000	-0.13	0.225	0.230
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 5	ECI 7	56000	3840	18.91	19.00	1.021		1.000	0.06	0.346	0.353
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	5mm	Ant 5	ECI 7	56000	3840	18.91	19.00	1.021		1.000	0.04	0.279	0.285
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 5	ECI 7	56000	3840	18.91	19.00	1.021		1.000	-0.02	0.467	0.477
	FR1 n77	100M	QPSK	270	0	DFT-30	Top Side	5mm	Ant 5	ECI 7	56000	3840	18.91	19.00	1.021		1.000	0.08	0.415	0.424
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 7	ECI 7	56000	3840	19.18	20.00	1.208		1.000	0.12	0.203	0.245
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 7	ECI 7	56000	3840	19.18	20.00	1.208		1.000	-0.11	0.435	0.525
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	5mm	Ant 7	ECI 7	56000	3840	19.18	20.00	1.208		1.000	0.02	0.123	0.149
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	5mm	Ant 7	ECI 7	56000	3840	19.18	20.00	1.208		1.000	0.16	0.382	0.461
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 7	ECI 7	56000	3840	19.15	20.00	1.216		1.000	-0.06	0.186	0.226
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 7	ECI 7	56000	3840	19.15	20.00	1.216		1.000	0.13	0.441	0.536
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	5mm	Ant 7	ECI 7	56000	3840	19.15	20.00	1.216		1.000	-0.14	0.121	0.147
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 7	ECI 7	56000	3840	19.15	20.00	1.216		1.000	-0.05	0.367	0.446



	FR1 n77	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 7	ECI 7	556000	3840	19.14	20.00	1.219		1.000	0.05	0.425	0.518
	FR1 n77	100M	QPSK	270	0	DFT-30	Top Side	5mm	Ant 7	ECI 7	556000	3840	19.14	20.00	1.219		1.000	-0.07	0.342	0.417
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 11	ECI 7	556000	3840	13.44	14.00	1.138		1.000	-0.03	0.011	0.013
48	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 11	ECI 7	556000	3840	13.44	14.00	1.138		1.000	-0.16	0.519	0.590
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	5mm	Ant 11	ECI 7	556000	3840	13.44	14.00	1.138		1.000	-0.02	0.095	0.108
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	5mm	Ant 11	ECI 7	556000	3840	13.44	14.00	1.138		1.000	0.11	0.011	0.013
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 11	ECI 7	556000	3840	13.36	14.00	1.159		1.000	0.09	0.011	0.013
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 11	ECI 7	556000	3840	13.36	14.00	1.159		1.000	0.13	0.484	0.561
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	5mm	Ant 11	ECI 7	556000	3840	13.36	14.00	1.159		1.000	-0.09	0.090	0.104
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	5mm	Ant 11	ECI 7	556000	3840	13.36	14.00	1.159		1.000	0.16	0.010	0.012
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 11	ECI 7	556000	3840	13.34	14.00	1.164		1.000	0.05	0.455	0.530

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)
WLAN&Bluetooth																
	Bluetooth	DH5 1Mbps	Front	5mm	Ant 3	Hotspot Simultaneous WIFI 5/6G+BT WWAN+WIFI 5/6G+BT	39	2441	15.60	16.50	1.230	76.6	1.087	0.05	0.121	0.162
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 3		39	2441	15.60	16.50	1.230	76.6	1.087	-0.07	0.089	0.119
	Bluetooth	DH5 1Mbps	Right Side	5mm	Ant 3		39	2441	15.60	16.50	1.230	76.6	1.087	0.15	0.062	0.083
49	Bluetooth	DH5 1Mbps	Top Side	5mm	Ant 3		39	2441	15.60	16.50	1.230	76.6	1.087	-0.04	0.188	0.251
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3	Hotspot	1	2412	18.96	20.00	1.271	98.39	1.016	0.01	0.219	0.283
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3		1	2412	18.96	20.00	1.271	98.39	1.016	-0.09	0.197	0.254
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 3		1	2412	18.96	20.00	1.271	98.39	1.016	0.05	0.123	0.159
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	Ant 3		1	2412	18.96	20.00	1.271	98.39	1.016	0.04	0.394	0.509
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6	Hotspot	1	2412	17.49	18.50	1.262	98.39	1.016	0.05	0.131	0.168
50	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6		1	2412	17.49	18.50	1.262	98.39	1.016	0.01	0.207	0.265
	WLAN2.4GHz	802.11b 1Mbps	Right Side	5mm	Ant 6		1	2412	17.49	18.50	1.262	98.39	1.016	0.13	0.441	0.565
	WLAN2.4GHz	802.11b 1Mbps	Top Side	5mm	Ant 6		1	2412	17.49	18.50	1.262	98.39	1.016	-0.16	0.035	0.045
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+7	Hotspot	42	5210	15.03	16.00	1.250	92.86	1.077	0.07	0.216	0.291
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		42	5210	15.03	16.00	1.250	92.86	1.077	0.15	0.222	0.299
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 5+7		42	5210	15.03	16.00	1.250	92.86	1.077	-0.05	0.361	0.486
51	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 5+7		42	5210	15.03	16.00	1.250	92.86	1.077	-0.16	0.381	0.513
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+7	Hotspot	155	5775	14.57	15.50	1.239	92.86	1.077	-0.11	0.155	0.207
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		155	5775	14.57	15.50	1.239	92.86	1.077	-0.01	0.177	0.236
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	5mm	Ant 5+7		155	5775	14.57	15.50	1.239	92.86	1.077	-0.11	0.206	0.275
52	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	5mm	Ant 5+7		155	5775	14.57	15.50	1.239	92.86	1.077	-0.11	0.397	0.530



16.3 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 71	20M	QPSK	1	0		Front	5mm	Ant 0	-	ECI 3	133297	680.5	23.02	24.00	1.253		1.000	0.02	0.364	0.456
	LTE Band 71	20M	QPSK	1	0		Back	5mm	Ant 0	-	ECI 3	133297	680.5	23.02	24.00	1.253		1.000	0.02	0.433	0.543
	LTE Band 71	20M	QPSK	50	0		Front	5mm	Ant 0	-	ECI 3	133297	680.5	22.02	23.00	1.253		1.000	-0.06	0.291	0.365
	LTE Band 71	20M	QPSK	50	0		Back	5mm	Ant 0	-	ECI 3	133297	680.5	22.02	23.00	1.253		1.000	-0.09	0.345	0.432
	LTE Band 71	20M	QPSK	1	0		Front	5mm	Ant 1	-	ECI 3	133297	680.5	23.11	24.00	1.227		1.000	0.04	0.394	0.484
53	LTE Band 71	20M	QPSK	1	0		Back	5mm	Ant 1	-	ECI 3	133297	680.5	23.11	24.00	1.227		1.000	-0.16	0.495	0.608
	LTE Band 71	20M	QPSK	50	0		Front	5mm	Ant 1	-	ECI 3	133297	680.5	22.06	23.00	1.242		1.000	-0.17	0.327	0.406
	LTE Band 71	20M	QPSK	50	0		Back	5mm	Ant 1	-	ECI 3	133297	680.5	22.06	23.00	1.242		1.000	-0.12	0.401	0.498
	LTE Band 12	10M	QPSK	1	0		Front	5mm	Ant 0	-	ECI 3	23095	707.5	23.12	24.00	1.225		1.000	0.04	0.338	0.414
	LTE Band 12	10M	QPSK	1	0		Back	5mm	Ant 0	-	ECI 3	23095	707.5	23.12	24.00	1.225		1.000	0.02	0.416	0.509
	LTE Band 12	10M	QPSK	25	0		Front	5mm	Ant 0	-	ECI 3	23095	707.5	22.13	23.00	1.222		1.000	-0.02	0.277	0.338
	LTE Band 12	10M	QPSK	25	0		Back	5mm	Ant 0	-	ECI 3	23095	707.5	22.13	23.00	1.222		1.000	-0.14	0.337	0.412
	LTE Band 12	10M	QPSK	1	0		Front	5mm	Ant 1	-	ECI 3	23095	707.5	22.61	24.00	1.377		1.000	-0.04	0.459	0.632
54	LTE Band 12	10M	QPSK	1	0		Back	5mm	Ant 1	-	ECI 3	23095	707.5	22.61	24.00	1.377		1.000	-0.14	0.580	0.799
	LTE Band 12	10M	QPSK	25	0		Front	5mm	Ant 1	-	ECI 3	23095	707.5	21.59	23.00	1.384		1.000	0.02	0.381	0.527
	LTE Band 12	10M	QPSK	25	0		Back	5mm	Ant 1	-	ECI 3	23095	707.5	21.59	23.00	1.384		1.000	-0.17	0.472	0.653
	LTE Band 13	10M	QPSK	1	0		Front	5mm	Ant 0	-	ECI 3	23230	782	22.71	24.00	1.346		1.000	0.08	0.370	0.498
	LTE Band 13	10M	QPSK	1	0		Back	5mm	Ant 0	-	ECI 3	23230	782	22.71	24.00	1.346		1.000	0.03	0.439	0.591
	LTE Band 13	10M	QPSK	25	0		Front	5mm	Ant 0	-	ECI 3	23230	782	21.61	23.00	1.377		1.000	0.14	0.278	0.383
	LTE Band 13	10M	QPSK	25	0		Back	5mm	Ant 0	-	ECI 3	23230	782	21.61	23.00	1.377		1.000	-0.12	0.327	0.450
	LTE Band 13	10M	QPSK	1	0		Front	5mm	Ant 1	-	ECI 3	23230	782	21.45	23.00	1.429		1.000	0.05	0.449	0.642
55	LTE Band 13	10M	QPSK	1	0		Back	5mm	Ant 1	-	ECI 3	23230	782	21.45	23.00	1.429		1.000	0.05	0.552	0.789
	LTE Band 13	10M	QPSK	1	0		Front	17mm	Ant 1	-	ECI 4	23230	782	22.71	24.00	1.346		1.000	-0.05	0.092	0.124
	LTE Band 13	10M	QPSK	1	0		Back	20mm	Ant 1	-	ECI 4	23230	782	22.71	24.00	1.346		1.000	0.02	0.101	0.136
	LTE Band 13	10M	QPSK	25	0		Front	5mm	Ant 1	-	ECI 3	23230	782	21.42	23.00	1.439		1.000	-0.06	0.435	0.626
	LTE Band 13	10M	QPSK	25	0		Back	5mm	Ant 1	-	ECI 3	23230	782	21.42	23.00	1.439		1.000	-0.1	0.526	0.757
	FR1 n71	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 0	-	ECI 3	136100	680.5	22.68	24.00	1.355		1.000	-0.15	0.269	0.365
	FR1 n71	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 0	-	ECI 3	136100	680.5	22.68	24.00	1.355		1.000	-0.02	0.366	0.496
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 0	-	ECI 3	136100	680.5	22.52	24.00	1.406		1.000	-0.01	0.282	0.397
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 0	-	ECI 3	136100	680.5	22.52	24.00	1.406		1.000	-0.16	0.390	0.548
	FR1 n71	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 1	-	ECI 3	136100	680.5	22.73	24.00	1.340		1.000	-0.15	0.390	0.522
56	FR1 n71	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 1	-	ECI 3	136100	680.5	22.73	24.00	1.340		1.000	0.12	0.515	0.690
	FR1 n71	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 1	-	ECI 3	136100	680.5	22.58	24.00	1.387		1.000	0.15	0.378	0.524
	FR1 n71	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 1	-	ECI 3	136100	680.5	22.58	24.00	1.387		1.000	0.16	0.486	0.674
835Mhz																					
	GSM850					GPRS 4TX Slot	Front	5mm	Ant 0	-	ECI 3	189	836.4	28.85	30.50	1.462		1.000	0.07	0.568	0.831
57	GSM850					GPRS 4TX Slot	Back	5mm	Ant 0	-	ECI 3	189	836.4	28.85	30.50	1.462		1.000	0.15	0.852	1.246
	GSM850 Protective Cover					GPRS 4TX Slot	Back	5mm	Ant 0	-	ECI 3	189	836.4	28.85	30.50	1.462		1.000	0.09	0.738	1.079
	GSM850					GPRS 4TX Slot	Front	5mm	Ant 0	-	ECI 3	128	824.2	28.81	30.50	1.476		1.000	0.02	0.557	0.822
	GSM850					GPRS 4TX Slot	Front	5mm	Ant 0	-	ECI 3	251	848.8	28.79	30.50	1.483		1.000	0.11	0.568	0.842
	GSM850					GPRS 4TX Slot	Back	5mm	Ant 0	-	ECI 3	128	824.2	28.81	30.50	1.476		1.000	0.01	0.729	1.076
	GSM850					GPRS 4TX Slot	Back	5mm	Ant 0	-	ECI 3	251	848.8	28.79	30.50	1.483		1.000	0.09	0.810	1.201
	GSM850					GPRS 4TX Slot	Back	5mm	Ant 0	Headset	ECI 3	189	836.4	28.85	30.50	1.462		1.000	0.05	0.754	1.102
	WCDMA V					RMC 12.2Kbps	Front	5mm	Ant 0	-	ECI 3	4182	836.4	23.11	24.00	1.227		1.000	-0.02	0.435	0.534
58	WCDMA V					RMC 12.2Kbps	Back	5mm	Ant 0	-	ECI 3	4182	836.4	23.11	24.00	1.227		1.000	-0.11	0.581	0.713
	LTE Band 26	15M	QPSK	1	0		Front	5mm	Ant 0	-	ECI 3	26865	831.5	22.93	24.00	1.279		1.000	-0.13	0.375	0.480
	LTE Band 26	15M	QPSK	1	0		Back	5mm	Ant 0	-	ECI 3	26865	831.5	22.93	24.00	1.279		1.000	-0.13	0.450	0.576
	LTE Band 26	15M	QPSK	36	0		Front	5mm	Ant 0	-	ECI 3	26865	831.5	22.04	23.00	1.247		1.000	-0.13	0.306	0.382
	LTE Band 26	15M	QPSK	36	0		Back	5mm	Ant 0	-	ECI 3	26865	831.5	22.04	23.00	1.247		1.000	-0.03	0.365	0.455



	LTE Band 26	15M	QPSK	1	0		Front	5mm	Ant 1	-	ECI 3	26865	831.5	22.54	24.00	1.400		1.000	-0.02	0.382	0.535
59	LTE Band 26	15M	QPSK	1	0		Back	5mm	Ant 1	-	ECI 3	26865	831.5	22.54	24.00	1.400		1.000	-0.13	0.428	0.599
	LTE Band 26	15M	QPSK	36	0		Front	5mm	Ant 1	-	ECI 3	26865	831.5	21.60	23.00	1.380		1.000	0.05	0.306	0.422
	LTE Band 26	15M	QPSK	36	0		Back	5mm	Ant 1	-	ECI 3	26865	831.5	21.60	23.00	1.380		1.000	0.04	0.347	0.479
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 0	-	ECI 3	166300	831.5	22.97	24.00	1.268		1.000	-0.03	0.286	0.363
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 0	-	ECI 3	166300	831.5	22.97	24.00	1.268		1.000	-0.08	0.368	0.466
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 0	-	ECI 3	166300	831.5	22.76	24.00	1.330		1.000	-0.16	0.264	0.351
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 0	-	ECI 3	166300	831.5	22.76	24.00	1.330		1.000	-0.08	0.345	0.459
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	5mm	Ant 1	-	ECI 3	166300	831.5	22.79	24.00	1.321		1.000	0.05	0.409	0.540
60	FR1 n26	20M	QPSK	1	1	DFT-15	Back	5mm	Ant 1	-	ECI 3	166300	831.5	22.79	24.00	1.321		1.000	0.01	0.547	0.723
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	5mm	Ant 1	-	ECI 3	166300	831.5	22.66	24.00	1.361		1.000	0.1	0.387	0.527
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	5mm	Ant 1	-	ECI 3	166300	831.5	22.66	24.00	1.361		1.000	-0.07	0.526	0.716
1750MHz																					
	WCDMA IV					RMC 12.2Kbps	Front	5mm	Ant 2	-	ECI 3	1413	1732.6	18.32	20.00	1.472		1.000	0.12	0.387	0.570
	WCDMA IV					RMC 12.2Kbps	Back	5mm	Ant 2	-	ECI 3	1413	1732.6	18.32	20.00	1.472		1.000	-0.09	0.652	0.960
	WCDMA IV					RMC 12.2Kbps	Back	5mm	Ant 2	-	ECI 3	1312	1712.4	18.25	20.00	1.496		1.000	-0.09	0.689	1.031
61	WCDMA IV					RMC 12.2Kbps	Back	5mm	Ant 2	-	ECI 3	1513	1752.6	18.24	20.00	1.500		1.000	0.17	0.751	1.126
	WCDMA IV					RMC 12.2Kbps	Front	17mm	Ant 2	-	ECI 4	1413	1732.6	22.13	24.00	1.538		1.000	0.05	0.214	0.329
	WCDMA IV					RMC 12.2Kbps	Back	20mm	Ant 2	-	ECI 4	1513	1752.6	22.11	24.00	1.545		1.000	0.13	0.202	0.312
	LTE Band 66	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	132322	1745	20.12	21.00	1.225		1.000	0.08	0.576	0.705
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	132322	1745	20.12	21.00	1.225		1.000	0.01	0.805	0.986
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	132072	1720	19.97	21.00	1.268		1.000	-0.04	0.886	1.123
62	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	132572	1770	20.01	21.00	1.256		1.000	-0.12	0.931	1.169
	LTE Band 66C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 2	-	ECI 3	132322 132520	1745 1764.8	19.94	21.00	1.276		1.000	0.05	0.724	0.924
	LTE Band 66	20M	QPSK	1	0		Front	17mm	Ant 2	-	ECI 4	132322	1745	23.22	24.00	1.197		1.000	0.02	0.234	0.280
	LTE Band 66	20M	QPSK	1	0		Back	20mm	Ant 2	-	ECI 4	132572	1770	23.13	24.00	1.222		1.000	0.03	0.211	0.258
	LTE Band 66	20M	QPSK	50	0		Front	5mm	Ant 2	-	ECI 3	132322	1745	19.99	21.00	1.262		1.000	-0.16	0.554	0.699
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	132322	1745	19.99	21.00	1.262		1.000	-0.16	0.786	0.992
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	132072	1720	19.82	21.00	1.312		1.000	-0.02	0.856	1.123
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	132572	1770	19.92	21.00	1.282		1.000	-0.13	0.906	1.162
	LTE Band 66	20M	QPSK	100	0		Back	5mm	Ant 2	-	ECI 3	132322	1745	19.94	21.00	1.276		1.000	-0.12	0.906	1.156
	LTE Band 66	20M	QPSK	1	0		Front	5mm	Ant 8	-	ECI 3	132322	1745	21.31	22.00	1.172		1.000	0.13	0.394	0.462
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	132322	1745	21.31	22.00	1.172		1.000	0.07	0.669	0.784
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	132072	1720	21.30	22.00	1.175		1.000	-0.1	0.678	0.797
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	132572	1770	21.20	22.00	1.202		1.000	0.01	0.681	0.819
	LTE Band 66C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 8	-	ECI 3	132322 132520	1745 1764.8	21.07	22.00	1.239		1.000	0.06	0.645	0.799
	LTE Band 66	20M	QPSK	1	0		Front	17mm	Ant 8	-	ECI 4	132322	1745	23.21	24.00	1.199		1.000	-0.08	0.192	0.230
	LTE Band 66	20M	QPSK	1	0		Back	20mm	Ant 8	-	ECI 4	132572	1770	23.16	24.00	1.213		1.000	0.04	0.202	0.245
	LTE Band 66	20M	QPSK	50	0		Front	5mm	Ant 8	-	ECI 3	132322	1745	21.30	22.00	1.175		1.000	0.06	0.374	0.439
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	132322	1745	21.30	22.00	1.175		1.000	-0.12	0.652	0.766
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	132072	1720	21.15	22.00	1.216		1.000	0	0.663	0.806
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	132572	1770	21.29	22.00	1.178		1.000	-0.07	0.669	0.788
	LTE Band 66	20M	QPSK	100	0		Back	5mm	Ant 8	-	ECI 3	132322	1745	21.22	22.00	1.197		1.000	0.03	0.645	0.772
	LTE Band 66	20M	QPSK	1	0		Front	5mm	Ant 9	-	ECI 3	132322	1745	23.05	24.00	1.245		1.000	0	0.278	0.346
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	132322	1745	23.05	24.00	1.245		1.000	-0.16	0.675	0.840
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	132072	1720	23.03	24.00	1.250		1.000	0.12	0.633	0.791
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	132572	1770	23.04	24.00	1.247		1.000	0.1	0.712	0.888
	LTE Band 66C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 9	-	ECI 3	132322 132520	1745 1764.8	23.00	24.00	1.259		1.000	0.05	0.626	0.788
	LTE Band 66	20M	QPSK	50	0		Front	5mm	Ant 9	-	ECI 3	132322	1745	22.05	23.00	1.245		1.000	0.08	0.268	0.334
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	132322	1745	22.05	23.00	1.245		1.000	-0.14	0.667	0.830
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	132072	1720	22.00	23.00	1.259		1.000	-0.1	0.626	0.788
	LTE Band 66	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	132572	1770	22.03	23.00	1.250		1.000	-0.14	0.701	0.876
	FR1 n66	20M	QPSK	100	0		Back	5mm	Ant 9	-	ECI 3	132322	1745	22.04	23.00	1.247		1.000	0.06	0.658	0.821
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	-	ECI 3	349000	1745	19.52	20.50	1.253		1.000	-0.12	0.581	0.728



63	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	-	ECI 3	349000	1745	19.52	20.50	1.253		1.000	0.02	1.020	1.278
	FR1 n66 Protective Cover	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	-	ECI 3	349000	1745	19.52	20.50	1.253		1.000	0.04	0.887	1.112
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	17mm	Ant 2	-	ECI 4	349000	1745	22.82	24.00	1.312		1.000	0.07	0.158	0.207
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	20mm	Ant 2	-	ECI 4	349000	1745	22.82	24.00	1.312		1.000	0.03	0.125	0.164
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	Headset	ECI 3	349000	1745	19.52	20.50	1.253		1.000	0.02	0.455	0.570
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	5mm	Ant 2	-	ECI 3	349000	1745	19.37	20.50	1.297		1.000	0.16	0.557	0.723
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	5mm	Ant 2	-	ECI 3	349000	1745	19.37	20.50	1.297		1.000	-0.08	0.968	1.256
	FR1 n66	45M	QPSK	240	0	DFT-15	Back	5mm	Ant 2	-	ECI 3	349000	1745	19.35	20.50	1.303		1.000	-0.03	0.944	1.230
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	5mm	Ant 8	-	ECI 3	349000	1745	19.69	20.50	1.205		1.000	-0.04	0.326	0.393
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	-	ECI 3	349000	1745	19.69	20.50	1.205		1.000	0.02	0.647	0.780
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	17mm	Ant 8	-	ECI 4	349000	1745	23.06	24.00	1.242		1.000	0.01	0.125	0.155
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	20mm	Ant 8	-	ECI 4	349000	1745	23.06	24.00	1.242		1.000	0.09	0.133	0.165
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	5mm	Ant 8	-	ECI 3	349000	1745	19.65	20.50	1.216		1.000	0.09	0.312	0.379
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	5mm	Ant 8	-	ECI 3	349000	1745	19.65	20.50	1.216		1.000	-0.15	0.618	0.752
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	5mm	Ant 9	-	ECI 3	349000	1745	19.56	20.50	1.242		1.000	0.09	0.237	0.294
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	-	ECI 3	349000	1745	19.56	20.50	1.242		1.000	0.07	0.629	0.781
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	17mm	Ant 9	-	ECI 4	349000	1745	22.91	24.00	1.285		1.000	0.08	0.111	0.143
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	20mm	Ant 9	-	ECI 4	349000	1745	22.91	24.00	1.285		1.000	0.06	0.123	0.158
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	5mm	Ant 9	-	ECI 3	349000	1745	19.49	20.50	1.262		1.000	-0.04	0.215	0.271
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	5mm	Ant 9	-	ECI 3	349000	1745	19.49	20.50	1.262		1.000	0.01	0.602	0.760
	GSM1900					GPRS 4TX Slot	Front	5mm	Ant 2	-	ECI 3	661	1880	20.67	21.80	1.297		1.000	-0.04	0.581	0.754
64	GSM1900					GPRS 4TX Slot	Back	5mm	Ant 2	-	ECI 3	661	1880	20.67	21.80	1.297		1.000	-0.12	0.926	1.201
	GSM1900					GPRS 4TX Slot	Back	5mm	Ant 2	-	ECI 3	512	1850.2	20.60	21.80	1.318		1.000	0.13	0.876	1.155
	GSM1900					GPRS 4TX Slot	Back	5mm	Ant 2	-	ECI 3	810	1909.8	20.58	21.80	1.324		1.000	-0.02	0.846	1.120
	GSM1900					GPRS 4TX Slot	Front	17mm	Ant 2	-	ECI 4	661	1880	25.87	27.00	1.297		1.000	0.05	0.420	0.545
	GSM1900					GPRS 4TX Slot	Back	20mm	Ant 2	-	ECI 4	661	1880	25.87	27.00	1.297		1.000	0.12	0.562	0.729
	GSM1900					GPRS 4TX Slot	Back	5mm	Ant 2	Headset	ECI 3	661	1880	20.67	21.80	1.297		1.000	-0.12	0.437	0.567
	WCDMA II					RMC 12.2Kbps	Front	5mm	Ant 2	-	ECI 3	9400	1880	17.42	19.20	1.507		1.000	-0.09	0.559	0.842
	WCDMA II					RMC 12.2Kbps	Back	5mm	Ant 2	-	ECI 3	9400	1880	17.42	19.20	1.507		1.000	0.05	0.733	1.104
	WCDMA II					RMC 12.2Kbps	Back	5mm	Ant 2	-	ECI 3	9262	1852.4	17.35	19.20	1.531		1.000	-0.04	0.725	1.110
65	WCDMA II					RMC 12.2Kbps	Back	5mm	Ant 2	-	ECI 3	9538	1907.6	17.32	19.20	1.542		1.000	0.02	0.766	1.181
	WCDMA II					RMC 12.2Kbps	Front	17mm	Ant 2	-	ECI 4	9400	1880	22.41	24.00	1.442		1.000	0.05	0.411	0.593
	WCDMA II					RMC 12.2Kbps	Back	20mm	Ant 2	-	ECI 4	9538	1907.6	22.35	24.00	1.462		1.000	0.01	0.385	0.563
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	26340	1880	19.25	20.00	1.189		1.000	0.14	0.662	0.787
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	26340	1880	19.25	20.00	1.189		1.000	-0.15	0.908	1.079
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	26140	1860	19.19	20.00	1.205		1.000	-0.08	0.935	1.127
66	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	26590	1905	19.24	20.00	1.191		1.000	-0.07	0.974	1.160
	LTE Band 2C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 2	-	ECI 3	18900 19098	1880 1899.8	18.99	20.00	1.262		1.000	0.03	0.875	1.104
	LTE Band 25	20M	QPSK	1	0		Front	17mm	Ant 2	-	ECI 4	26340	1880	23.19	24.00	1.205		1.000	0.08	0.457	0.551
	LTE Band 25	20M	QPSK	1	0		Back	20mm	Ant 2	-	ECI 4	26590	1905	23.10	24.00	1.230		1.000	0.01	0.371	0.456
	LTE Band 25	20M	QPSK	50	0		Front	5mm	Ant 2	-	ECI 3	26340	1880	19.19	20.00	1.205		1.000	0.09	0.646	0.778
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	26340	1880	19.19	20.00	1.205		1.000	-0.06	0.874	1.053
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	26140	1860	19.17	20.00	1.211		1.000	-0.05	0.891	1.079
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	26590	1905	19.15	20.00	1.216		1.000	0.17	0.915	1.113
	LTE Band 25	20M	QPSK	100	0		Back	5mm	Ant 2	-	ECI 3	26340	1880	19.13	20.00	1.222		1.000	0.16	0.871	1.064
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 8	-	ECI 3	26340	1880	21.31	22.00	1.172		1.000	0.1	0.441	0.517
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	26340	1880	21.31	22.00	1.172		1.000	-0.13	0.686	0.804
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	26140	1860	21.14	22.00	1.219		1.000	-0.05	0.661	0.806
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	26590	1905	21.24	22.00	1.191		1.000	-0.1	0.678	0.808
	LTE Band 2C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 8	-	ECI 3	18900 19098	1880 1899.8	21.07	22.00	1.239		1.000	0.05	0.560	0.694
	LTE Band 25	20M	QPSK	1	0		Front	17mm	Ant 8	-	ECI 4	26340	1880	23.33	24.00	1.167		1.000	0.07	0.155	0.181
	LTE Band 25	20M	QPSK	1	0		Back	20mm	Ant 8	-	ECI 4	26590	1905	23.24	24.00	1.191		1.000	0.03	0.136	0.162
	LTE Band 25	20M	QPSK	50	0		Front	5mm	Ant 8	-	ECI 3	26340	1880	21.30	22.00	1.175		1.000	-0.07	0.435	0.511
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	26340	1880	21.30	22.00	1.175		1.000	0.1	0.656	0.771



	LTE Band 25	20M	QPSK	100	0		Back	5mm	Ant 8	-	ECI 3	26340	1880	21.26	22.00	1.186		1.000	0.14	0.662	0.785
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 9	-	ECI 3	26340	1880	19.71	20.50	1.199		1.000	0.17	0.303	0.363
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	26340	1880	19.71	20.50	1.199		1.000	0.02	0.683	0.819
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	26140	1860	19.66	20.50	1.213		1.000	-0.09	0.636	0.772
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	26590	1905	19.54	20.50	1.247		1.000	-0.06	0.705	0.879
	LTE Band 2C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 9	-	ECI 3	18900 19098	1880 1899.8	19.51	20.50	1.256		1.000	0.08	0.652	0.819
	LTE Band 25	20M	QPSK	1	0		Front	17mm	Ant 9	-	ECI 4	26340	1880	23.22	24.00	1.197		1.000	-0.05	0.091	0.109
	LTE Band 25	20M	QPSK	1	0		Back	20mm	Ant 9	-	ECI 4	26590	1905	23.01	24.00	1.256		1.000	0.04	0.115	0.144
	LTE Band 25	20M	QPSK	50	0		Front	5mm	Ant 9	-	ECI 3	26340	1880	19.66	20.50	1.213		1.000	-0.11	0.301	0.365
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	26340	1880	19.66	20.50	1.213		1.000	0.04	0.667	0.809
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	26140	1860	19.55	20.50	1.245		1.000	0.17	0.625	0.778
	LTE Band 25	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	26590	1905	19.53	20.50	1.250		1.000	0.11	0.681	0.851
	LTE Band 25	20M	QPSK	100	0		Back	5mm	Ant 9	-	ECI 3	26340	1880	19.56	20.50	1.242		1.000	-0.06	0.661	0.821
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	-	ECI 3	376000	1880	18.16	19.00	1.213		1.000	0.13	0.641	0.778
67	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	-	ECI 3	376000	1880	18.16	19.00	1.213		1.000	0.12	0.981	1.190
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	17mm	Ant 2	-	ECI 4	376000	1880	22.99	24.00	1.262		1.000	0.02	0.285	0.360
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	20mm	Ant 2	-	ECI 4	376000	1880	22.99	24.00	1.262		1.000	0.06	0.234	0.295
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	5mm	Ant 2	-	ECI 3	376000	1880	18.10	19.00	1.230		1.000	-0.13	0.618	0.760
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	5mm	Ant 2	-	ECI 3	376000	1880	18.10	19.00	1.230		1.000	-0.04	0.928	1.142
	FR1 n2	40M	QPSK	216	0	DFT-15	Front	5mm	Ant 2	-	ECI 3	376000	1880	18.04	19.00	1.247		1.000	0.07	0.606	0.756
	FR1 n2	40M	QPSK	216	0	DFT-15	Back	5mm	Ant 2	-	ECI 3	376000	1880	18.04	19.00	1.247		1.000	0	0.922	1.150
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	5mm	Ant 8	-	ECI 3	376000	1880	20.24	21.00	1.191		1.000	-0.14	0.401	0.478
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	-	ECI 3	376000	1880	20.24	21.00	1.191		1.000	-0.17	0.636	0.758
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	17mm	Ant 8	-	ECI 4	376000	1880	23.14	24.00	1.219		1.000	0.02	0.128	0.156
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	20mm	Ant 8	-	ECI 4	376000	1880	23.14	24.00	1.219		1.000	0.13	0.115	0.140
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	5mm	Ant 8	-	ECI 3	376000	1880	20.18	21.00	1.208		1.000	-0.12	0.384	0.464
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	5mm	Ant 8	-	ECI 3	376000	1880	20.18	21.00	1.208		1.000	0.05	0.602	0.727
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	5mm	Ant 9	-	ECI 3	376000	1880	18.27	19.00	1.183		1.000	-0.15	0.462	0.547
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	-	ECI 3	376000	1880	18.27	19.00	1.183		1.000	-0.13	0.649	0.768
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	17mm	Ant 9	-	ECI 4	376000	1880	23.10	24.00	1.230		1.000	0.08	0.086	0.106
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	20mm	Ant 9	-	ECI 4	376000	1880	23.10	24.00	1.230		1.000	0.02	0.091	0.112
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	5mm	Ant 9	-	ECI 3	376000	1880	18.23	19.00	1.194		1.000	-0.01	0.441	0.527
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	5mm	Ant 9	-	ECI 3	376000	1880	18.23	19.00	1.194		1.000	-0.02	0.621	0.741
2600MHz																					
	LTE Band 7	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	21100	2535	18.29	19.00	1.178		1.000	-0.1	0.582	0.685
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	21100	2535	18.29	19.00	1.178		1.000	-0.06	0.883	1.040
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	20850	2510	18.17	19.00	1.211		1.000	-0.13	0.897	1.086
68	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	21350	2560	18.14	19.00	1.219		1.000	0.01	0.913	1.113
	LTE Band 7C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 2	-	ECI 3	21100 21298	2535 2554.8	18.13	19.00	1.222		1.000	0.05	0.738	0.902
	LTE Band 7	20M	QPSK	1	0		Front	17mm	Ant 2	-	ECI 4	21100	2535	23.25	24.00	1.189		1.000	0.06	0.354	0.421
	LTE Band 7	20M	QPSK	1	0		Back	20mm	Ant 2	-	ECI 4	21350	2560	23.22	24.00	1.197		1.000	0.02	0.338	0.404
	LTE Band 7	20M	QPSK	50	0		Front	5mm	Ant 2	-	ECI 3	21100	2535	18.26	19.00	1.186		1.000	-0.15	0.554	0.657
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	21100	2535	18.26	19.00	1.186		1.000	-0.03	0.869	1.030
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	20850	2510	18.23	19.00	1.194		1.000	-0.15	0.881	1.052
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	21350	2560	18.21	19.00	1.199		1.000	-0.09	0.887	1.064
	LTE Band 7	20M	QPSK	100	0		Back	5mm	Ant 2	-	ECI 3	21100	2535	18.21	19.00	1.199		1.000	0.07	0.854	1.024
	LTE Band 7	20M	QPSK	1	0		Front	5mm	Ant 8	-	ECI 3	21100	2535	19.86	20.50	1.159		1.000	-0.11	0.352	0.408
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	21100	2535	19.86	20.50	1.159		1.000	-0.09	0.721	0.835
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	20850	2510	19.74	20.50	1.191		1.000	0.17	0.741	0.883
	LTE Band 7C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 8	-	ECI 3	21100 21298	2535 2554.8	19.70	20.50	1.202		1.000	0.08	0.685	0.824
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	21350	2560	19.75	20.50	1.189		1.000	-0.1	0.726	0.863
	LTE Band 7	20M	QPSK	1	0		Front	17mm	Ant 8	-	ECI 4	21100	2535	23.45	24.00	1.135		1.000	0.07	0.192	0.218
	LTE Band 7	20M	QPSK	1	0		Back	20mm	Ant 8	-	ECI 4	20850	2510	23.26	24.00	1.186		1.000	0.05	0.262	0.311
	LTE Band 7	20M	QPSK	50	0		Front	5mm	Ant 8	-	ECI 3	21100	2535	19.85	20.50	1.161		1.000	-0.06	0.337	0.391



	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	21100	2535	19.85	20.50	1.161		1.000	0.02	0.706	0.820
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	20850	2510	19.69	20.50	1.205		1.000	-0.14	0.728	0.877
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	21350	2560	19.72	20.50	1.197		1.000	0.01	0.711	0.851
	LTE Band 7	20M	QPSK	100	0		Back	5mm	Ant 8	-	ECI 3	21100	2535	19.80	20.50	1.175		1.000	0.06	0.713	0.838
	LTE Band 7	20M	QPSK	1	0		Front	5mm	Ant 9	-	ECI 3	21100	2535	21.66	22.50	1.213		1.000	0.02	0.290	0.352
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	21100	2535	21.66	22.50	1.213		1.000	0.14	0.700	0.849
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	20850	2510	21.60	22.50	1.230		1.000	-0.03	0.717	0.882
	LTE Band 7C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 9	-	ECI 3	21100 21298	2535 2554.8	21.50	22.50	1.259		1.000	0.12	0.589	0.742
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	21350	2560	21.56	22.50	1.242		1.000	-0.1	0.668	0.829
	LTE Band 7	20M	QPSK	1	0		Front	17mm	Ant 9	-	ECI 4	21100	2535	23.39	24.00	1.151		1.000	-0.05	0.103	0.119
	LTE Band 7	20M	QPSK	1	0		Back	20mm	Ant 9	-	ECI 4	20850	2510	23.35	24.00	1.161		1.000	0.02	0.141	0.164
	LTE Band 7	20M	QPSK	50	0		Front	5mm	Ant 9	-	ECI 3	21100	2535	21.64	22.50	1.219		1.000	0.05	0.284	0.346
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	21100	2535	21.64	22.50	1.219		1.000	-0.1	0.688	0.839
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	20850	2510	21.51	22.50	1.256		1.000	-0.04	0.702	0.882
	LTE Band 7	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	21350	2560	21.56	22.50	1.242		1.000	-0.07	0.671	0.833
	LTE Band 7	20M	QPSK	100	0		Back	5mm	Ant 9	-	ECI 3	21350	2560	21.55	22.50	1.245		1.000	0.07	0.663	0.825
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	40620	2593	20.28	21.00	1.180	62.9	1.006	-0.17	0.546	0.648
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	40620	2593	20.28	21.00	1.180	62.9	1.006	0.14	0.895	1.063
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	39750	2506	20.23	21.00	1.194	62.9	1.006	-0.11	0.552	0.663
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	40185	2549.5	20.15	21.00	1.216	62.9	1.006	0.16	0.584	0.715
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	41055	2636.5	20.15	21.00	1.216	62.9	1.006	0.04	0.605	0.740
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 2	-	ECI 3	41490	2680	20.13	21.00	1.222	62.9	1.006	0.11	0.572	0.703
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	39750	2506	20.23	21.00	1.194	62.9	1.006	-0.02	0.905	1.087
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	40185	2549.5	20.15	21.00	1.216	62.9	1.006	0.09	0.925	1.132
69	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	41055	2636.5	20.15	21.00	1.216	62.9	1.006	-0.01	0.970	1.187
	LTE Band 41C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 2	-	ECI 3	40620 40818	2593 2612.8	20.04	21.00	1.247	62.9	1.006	0.09	0.812	1.019
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	41055	2636.5	21.62	22.60	1.253	42.9	1.009	0.01	0.931	1.177
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 2	-	ECI 3	41490	2680	20.13	21.00	1.222	62.9	1.006	0.01	0.924	1.136
	LTE Band 41	20M	QPSK	1	0		Front	17mm	Ant 2	-	ECI 4	41055	2636.5	23.15	24.00	1.216	62.9	1.006	0.05	0.323	0.395
	LTE Band 41	20M	QPSK	1	0		Back	20mm	Ant 2	-	ECI 4	41055	2636.5	23.15	24.00	1.216	62.9	1.006	0.02	0.274	0.335
	LTE Band 41	20M	QPSK	50	0		Front	5mm	Ant 2	-	ECI 3	40620	2593	20.16	21.00	1.213	62.9	1.006	-0.06	0.504	0.615
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	40620	2593	20.16	21.00	1.213	62.9	1.006	0.06	0.857	1.046
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	39750	2506	19.98	21.00	1.265	62.9	1.006	0.09	0.875	1.113
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	40185	2549.5	20.05	21.00	1.245	62.9	1.006	-0.15	0.893	1.118
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	41055	2636.5	20.11	21.00	1.227	62.9	1.006	0.1	0.946	1.168
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 2	-	ECI 3	41490	2680	20.05	21.00	1.245	62.9	1.006	-0.08	0.902	1.129
	LTE Band 41	20M	QPSK	100	0		Front	5mm	Ant 2	-	ECI 3	40620	2593	20.11	21.00	1.227	62.9	1.006	0.02	0.481	0.594
	LTE Band 41	20M	QPSK	100	0		Back	5mm	Ant 2	-	ECI 3	40620	2593	20.11	21.00	1.227	62.9	1.006	-0.16	0.833	1.029
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 8	-	ECI 3	40620	2593	20.19	21.00	1.205	62.9	1.006	0.11	0.284	0.344
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	40620	2593	20.19	21.00	1.205	62.9	1.006	0.16	0.626	0.759
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	39750	2506	19.99	21.00	1.262	62.9	1.006	-0.17	0.539	0.684
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	40185	2549.5	20.11	21.00	1.227	62.9	1.006	0.12	0.571	0.705
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	41055	2636.5	20.08	21.00	1.236	62.9	1.006	-0.17	0.611	0.760
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	41490	2680	20.11	21.00	1.227	62.9	1.006	0.03	0.616	0.761
	LTE Band 41 PC2	20M	QPSK	1	0		Back	5mm	Ant 8	-	ECI 3	41490	2680	21.54	22.60	1.276	42.9	1.009	-0.06	0.600	0.773
	LTE Band 41C PC2	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 8	-	ECI 3	40620 40818	2593 2612.8	21.50	22.60	1.288	42.9	1.009	0.13	0.575	0.747
	LTE Band 41	20M	QPSK	1	0		Front	17mm	Ant 8	-	ECI 4	40620	2593	23.24	24.00	1.191	62.9	1.006	0.05	0.085	0.102
	LTE Band 41 PC2	20M	QPSK	1	0		Back	20mm	Ant 8	-	ECI 4	41490	2680	25.50	27.00	1.413	42.9	1.009	0.02	0.115	0.164
	LTE Band 41	20M	QPSK	50	0		Front	5mm	Ant 8	-	ECI 3	40620	2593	20.18	21.00	1.208	62.9	1.006	-0.13	0.274	0.333
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	40620	2593	20.18	21.00	1.208	62.9	1.006	-0.05	0.613	0.745
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	39750	2506	19.87	21.00	1.297	62.9	1.006	0	0.542	0.707
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	40185	2549.5	20.03	21.00	1.250	62.9	1.006	0.05	0.568	0.714
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	41055	2636.5	20.15	21.00	1.216	62.9	1.006	-0.1	0.605	0.740
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 8	-	ECI 3	41490	2680	20.00	21.00	1.259	62.9	1.006	0.14	0.588	0.745



	LTE Band 41	20M	QPSK	100	0		Back	5mm	Ant 8	-	ECI 3	40620	2593	20.05	21.00	1.245	62.9	1.006	0.05	0.606	0.759
	LTE Band 41	20M	QPSK	1	0		Front	5mm	Ant 9	-	ECI 3	40620	2593	22.44	23.00	1.138	62.9	1.006	0.09	0.306	0.350
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	40620	2593	22.44	23.00	1.138	62.9	1.006	-0.17	0.611	0.699
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	39750	2506	22.26	23.00	1.186	62.9	1.006	0.08	0.624	0.744
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	40185	2549.5	22.32	23.00	1.169	62.9	1.006	0.08	0.638	0.751
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	41055	2636.5	22.30	23.00	1.175	62.9	1.006	-0.05	0.667	0.788
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	41490	2680	22.39	23.00	1.151	62.9	1.006	0.09	0.734	0.850
	LTE Band 41C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 9	-	ECI 3	40620 40818	2593 2612.8	22.31	23.00	1.172	62.9	1.006	0.03	0.582	0.686
	LTE Band 41 PC2	20M	QPSK	1	0		Back	5mm	Ant 9	-	ECI 3	41490	2680	23.68	24.60	1.236	42.9	1.009	-0.12	0.675	0.842
	LTE Band 41	20M	QPSK	1	0		Front	17mm	Ant 9	-	ECI 4	40620	2593	23.42	24.00	1.143	62.9	1.006	0.03	0.089	0.102
	LTE Band 41	20M	QPSK	1	0		Back	20mm	Ant 9	-	ECI 4	41490	2680	23.05	24.00	1.245	62.9	1.006	0.07	0.138	0.173
	LTE Band 41	20M	QPSK	50	0		Front	5mm	Ant 9	-	ECI 3	40620	2593	22.38	23.00	1.153	62.9	1.006	0.09	0.294	0.341
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	40620	2593	22.38	23.00	1.153	62.9	1.006	0	0.576	0.668
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	39750	2506	22.36	23.00	1.159	62.9	1.006	0.11	0.611	0.712
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	40185	2549.5	22.31	23.00	1.172	62.9	1.006	0.09	0.618	0.729
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	41055	2636.5	22.07	23.00	1.239	62.9	1.006	-0.17	0.643	0.801
	LTE Band 41	20M	QPSK	50	0		Back	5mm	Ant 9	-	ECI 3	41490	2680	22.02	23.00	1.253	62.9	1.006	0.01	0.652	0.822
	LTE Band 41	20M	QPSK	100	0		Back	5mm	Ant 9	-	ECI 3	40620	2593	22.31	23.00	1.172	62.9	1.006	0.13	0.601	0.709
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	-	ECI 3	507000	2535	18.27	19.00	1.183		1.000	-0.02	0.501	0.593
70	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	-	ECI 3	507000	2535	18.27	19.00	1.183		1.000	0.06	1.080	1.278
	FR1 n7 Protective Cover	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	-	ECI 3	507000	2535	18.27	19.00	1.183		1.000	-0.13	0.928	1.098
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	17mm	Ant 2	-	ECI 4	507000	2535	22.96	24.00	1.271		1.000	0.02	0.250	0.318
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	20mm	Ant 2	-	ECI 4	507000	2535	22.96	24.00	1.271		1.000	0.09	0.243	0.308
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	Headset	ECI 3	507000	2535	18.27	19.00	1.183		1.000	0.04	0.533	0.631
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	5mm	Ant 2	-	ECI 3	507000	2535	18.07	19.00	1.239		1.000	-0.08	0.472	0.585
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	5mm	Ant 2	-	ECI 3	507000	2535	18.07	19.00	1.239		1.000	0.15	0.982	1.216
	FR1 n7	50M	QPSK	270	0	DFT-15	Back	5mm	Ant 2	-	ECI 3	507000	2535	18.00	19.00	1.259		1.000	0.13	0.977	1.230
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	5mm	Ant 8	-	ECI 3	507000	2535	18.17	19.00	1.211		1.000	-0.08	0.241	0.292
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	-	ECI 3	507000	2535	18.17	19.00	1.211		1.000	-0.09	0.706	0.855
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	17mm	Ant 8	-	ECI 4	507000	2535	23.03	24.00	1.250		1.000	0.12	0.123	0.154
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	20mm	Ant 8	-	ECI 4	507000	2535	23.03	24.00	1.250		1.000	0.05	0.186	0.233
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	5mm	Ant 8	-	ECI 3	507000	2535	18.11	19.00	1.227		1.000	0.15	0.235	0.288
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	5mm	Ant 8	-	ECI 3	507000	2535	18.11	19.00	1.227		1.000	-0.14	0.688	0.844
	FR1 n7	50M	QPSK	270	0	DFT-15	Back	5mm	Ant 8	-	ECI 3	507000	2535	18.05	19.00	1.245		1.000	-0.07	0.672	0.836
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	5mm	Ant 9	-	ECI 3	507000	2535	19.47	20.50	1.268		1.000	0.07	0.322	0.408
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	-	ECI 3	507000	2535	19.47	20.50	1.268		1.000	0.17	0.616	0.781
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	17mm	Ant 9	-	ECI 4	507000	2535	22.82	24.00	1.312		1.000	0.02	0.121	0.159
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	20mm	Ant 9	-	ECI 4	507000	2535	22.82	24.00	1.312		1.000	0.08	0.145	0.190
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	5mm	Ant 9	-	ECI 3	507000	2535	19.46	20.50	1.271		1.000	0.09	0.315	0.400
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	5mm	Ant 9	-	ECI 3	507000	2535	19.46	20.50	1.271		1.000	0.01	0.607	0.771
	FR1 n7	50M	QPSK	270	0	DFT-15	Back	5mm	Ant 9	-	ECI 3	507000	2535	19.40	20.50	1.288		1.000	-0.05	0.587	0.756
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 2	-	ECI 3	518598	2592.99	17.25	18.00	1.189		1.000	0.07	0.606	0.720
71	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 2	-	ECI 3	518598	2592.99	17.25	18.00	1.189		1.000	0.03	1.070	1.272
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	17mm	Ant 2	-	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.12	0.881	1.125
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	20mm	Ant 2	-	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.06	0.835	1.066
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 2	Headset	ECI 3	518598	2592.99	17.25	18.00	1.189		1.000	0.05	0.497	0.591
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 2	-	ECI 3	518598	2592.99	17.04	18.00	1.247		1.000	-0.1	0.574	0.716
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 2	-	ECI 3	518598	2592.99	17.04	18.00	1.247		1.000	0.02	0.974	1.215
	FR1 n41	100M	QPSK	270	0	DFT-30	Front	5mm	Ant 2	-	ECI 3	518598	2592.99	17.01	18.00	1.256		1.000	-0.01	0.564	0.708
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 2	-	ECI 3	518598	2592.99	17.01	18.00	1.256		1.000	0.09	0.968	1.216
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 8	-	ECI 3	518598	2592.99	19.53	20.50	1.250		1.000	-0.15	0.335	0.419
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 8	-	ECI 3	518598	2592.99	19.53	20.50	1.250		1.000	0.02	0.665	0.831
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	17mm	Ant 8	-	ECI 4	518598	2592.99	25.82	27.00	1.312		1.000	0.04	0.206	0.270
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	20mm	Ant 8	-	ECI 4	518598	2592.99	25.82	27.00	1.312		1.000	0.06	0.243	0.319



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	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 8	-	ECI 3	518598	2592.99	19.48	20.50	1.265		1.000	0.02	0.318	0.402
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 8	-	ECI 3	518598	2592.99	19.48	20.50	1.265		1.000	0.13	0.637	0.806
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 8	-	ECI 3	518598	2592.99	19.46	20.50	1.271		1.000	-0.11	0.629	0.799
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 9	-	ECI 3	518598	2592.99	19.79	20.50	1.178		1.000	0.01	0.346	0.407
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 9	-	ECI 3	518598	2592.99	19.79	20.50	1.178		1.000	0.1	0.667	0.785
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 9	-	ECI 3	518598	2592.99	19.70	20.50	1.202		1.000	0.1	0.358	0.430
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 9	-	ECI 3	518598	2592.99	19.70	20.50	1.202		1.000	-0.06	0.686	0.825
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	17mm	Ant 9	-	ECI 4	518598	2592.99	26.15	27.00	1.216		1.000	0.05	0.161	0.196
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	20mm	Ant 9	-	ECI 4	518598	2592.99	26.15	27.00	1.216		1.000	0.07	0.230	0.280
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 9	-	ECI 3	518598	2592.99	19.69	20.50	1.205		1.000	-0.02	0.645	0.777
	FR1 n41	100M	QPSK	1	137	DFT-30	Front	5mm	Ant 6	-	ECI 3	518598	2592.99	22.12	23.00	1.225		1.000	0.09	0.342	0.419
	FR1 n41	100M	QPSK	1	137	DFT-30	Back	5mm	Ant 6	-	ECI 3	518598	2592.99	22.12	23.00	1.225		1.000	0.07	0.706	0.865
	FR1 n41	100M	QPSK	1	137	DFT-30	Front	17mm	Ant 6	-	ECI 4	518598	2592.99	22.96	24.00	1.271		1.000	0.03	0.025	0.032
	FR1 n41	100M	QPSK	1	137	DFT-30	Back	20mm	Ant 6	-	ECI 4	518598	2592.99	22.96	24.00	1.271		1.000	0.08	0.039	0.050
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 6	-	ECI 3	518598	2592.99	22.06	23.00	1.242		1.000	-0.13	0.337	0.418
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 6	-	ECI 3	518598	2592.99	22.06	23.00	1.242		1.000	0.03	0.668	0.829
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 6	-	ECI 3	518598	2592.99	21.86	23.00	1.300		1.000	-0.05	0.645	0.839
3000-4000MHz																					
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 4	-	ECI 3	42590	3500	20.65	22.00	1.365	62.9	1.006	0.07	0.501	0.688
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 4	-	ECI 3	42590	3500	20.65	22.00	1.365	62.9	1.006	-0.14	0.598	0.821
72	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 4	-	ECI 3	42190	3460	20.63	22.00	1.371	62.9	1.006	-0.17	0.636	0.877
	LTE Band 42C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 4	-	ECI 3	42590 42788	3500 3519.8	20.44	22.00	1.432	62.9	1.006	0.05	0.525	0.756
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 4	-	ECI 3	42990	3540	20.55	22.00	1.396	62.9	1.006	0.01	0.529	0.743
	LTE Band 42	20M	QPSK	1	0		Front	17mm	Ant 4	-	ECI 4	42590	3500	22.75	24.00	1.334	62.9	1.006	0.09	0.245	0.329
	LTE Band 42	20M	QPSK	1	0		Back	20mm	Ant 4	-	ECI 4	42190	3460	22.73	24.00	1.340	62.9	1.006	0.02	0.171	0.230
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 4	-	ECI 3	42590	3500	20.51	22.00	1.409	62.9	1.006	-0.17	0.486	0.689
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 4	-	ECI 3	42590	3500	20.51	22.00	1.409	62.9	1.006	0.14	0.588	0.834
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 4	-	ECI 3	42190	3460	20.43	22.00	1.435	62.9	1.006	0.12	0.594	0.858
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 4	-	ECI 3	42990	3540	20.47	22.00	1.422	62.9	1.006	0.17	0.524	0.750
	LTE Band 42	20M	QPSK	100	0		Back	5mm	Ant 4	-	ECI 3	42590	3500	20.38	22.00	1.452	62.9	1.006	0.09	0.576	0.841
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 5	-	ECI 3	42590	3500	22.26	23.00	1.186	62.9	1.006	0.11	0.328	0.391
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 5	-	ECI 3	42590	3500	22.26	23.00	1.186	62.9	1.006	-0.06	0.576	0.687
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 5	-	ECI 3	42190	3460	22.17	23.00	1.211	62.9	1.006	0.03	0.543	0.661
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 5	-	ECI 3	42990	3540	22.16	23.00	1.213	62.9	1.006	0.01	0.660	0.806
	LTE Band 42C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 5	-	ECI 3	42590 42788	3500 3519.8	21.97	23.00	1.268	62.9	1.006	0.06	0.612	0.780
	LTE Band 42	20M	QPSK	1	0		Front	17mm	Ant 5	-	ECI 4	42590	3500	23.20	24.00	1.202	62.9	1.006	0.03	0.289	0.350
	LTE Band 42	20M	QPSK	1	0		Back	20mm	Ant 5	-	ECI 4	42990	3540	23.09	24.00	1.233	62.9	1.006	0.11	0.344	0.427
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 5	-	ECI 3	42590	3500	22.18	23.00	1.208	62.9	1.006	-0.12	0.309	0.375
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 5	-	ECI 3	42590	3500	22.18	23.00	1.208	62.9	1.006	0.17	0.567	0.689
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 5	-	ECI 3	42190	3460	22.08	23.00	1.236	62.9	1.006	-0.14	0.557	0.693
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 5	-	ECI 3	42990	3540	22.17	23.00	1.211	62.9	1.006	0.08	0.638	0.777
	LTE Band 42	20M	QPSK	100	0		Back	5mm	Ant 5	-	ECI 3	42590	3500	22.16	23.00	1.213	62.9	1.006	0.04	0.554	0.676
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 7	-	ECI 3	42590	3500	23.17	24.00	1.211	62.9	1.006	0.15	0.337	0.410
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 7	-	ECI 3	42590	3500	23.17	24.00	1.211	62.9	1.006	0.15	0.576	0.701
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 7	-	ECI 3	42190	3460	23.04	24.00	1.247	62.9	1.006	0.14	0.645	0.809
	LTE Band 42C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 7	-	ECI 3	42590 42788	3500 3519.8	23.08	24.00	1.236	62.9	1.006	0.05	0.525	0.653
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 7	-	ECI 3	42990	3540	22.95	24.00	1.274	62.9	1.006	-0.11	0.606	0.776
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 7	-	ECI 3	42590	3500	22.11	23.00	1.227	62.9	1.006	0.16	0.315	0.389
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 7	-	ECI 3	42590	3500	22.11	23.00	1.227	62.9	1.006	0.03	0.568	0.701
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 7	-	ECI 3	42190	3460	22.11	23.00	1.227	62.9	1.006	0.13	0.633	0.782
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 7	-	ECI 3	42990	3540	22.11	23.00	1.227	62.9	1.006	0.09	0.602	0.743
	LTE Band 42	20M	QPSK	100	0		Back	5mm	Ant 7	-	ECI 3	42590	3500	22.03	23.00	1.250	62.9	1.006	0.07	0.571	0.718
	LTE Band 42	20M	QPSK	1	0		Front	5mm	Ant 11	-	ECI 3	42590	3500	20.02	21.00	1.253	62.9	1.006	0.11	0.023	0.029
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 11	-	ECI 3	42590	3500	20.02	21.00	1.253	62.9	1.006	-0.04	0.631	0.795



	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 11	-	ECI 3	42190	3460	19.90	21.00	1.288	62.9	1.006	-0.07	0.657	0.851
	LTE Band 42C	20M	QPSK	PCC:1, 0 SCC:0, 0			Back	5mm	Ant 11	-	ECI 3	42590 42788	3500 3519.8	19.83	21.00	1.309	62.9	1.006	0.07	0.525	0.691
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 11	-	ECI 3	42990	3540	19.92	21.00	1.282	62.9	1.006	0.12	0.616	0.795
	LTE Band 42	20M	QPSK	1	0		Front	17mm	Ant 11	-	ECI 4	42590	3500	23.18	24.00	1.208	62.9	1.006	0.03	0.007	0.009
	LTE Band 42	20M	QPSK	1	0		Back	20mm	Ant 11	-	ECI 4	42190	3460	23.10	24.00	1.230	62.9	1.006	-0.11	0.208	0.257
	LTE Band 42	20M	QPSK	50	0		Front	5mm	Ant 11	-	ECI 3	42590	3500	19.91	21.00	1.285	62.9	1.006	0.17	0.020	0.026
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 11	-	ECI 3	42590	3500	19.91	21.00	1.285	62.9	1.006	0.1	0.627	0.811
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 11	-	ECI 3	42190	3460	19.78	21.00	1.324	62.9	1.006	0.05	0.638	0.850
	LTE Band 42	20M	QPSK	50	0		Back	5mm	Ant 11	-	ECI 3	42990	3540	19.88	21.00	1.294	62.9	1.006	-0.17	0.602	0.784
	LTE Band 42	20M	QPSK	100	0		Back	5mm	Ant 11	-	ECI 3	42590	3500	19.83	21.00	1.309	62.9	1.006	-0.11	0.608	0.801
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 4	-	ECI 3	656000	3840	20.77	21.50	1.183		1.000	0.04	0.638	0.755
73	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 4	-	ECI 3	656000	3840	20.77	21.50	1.183		1.000	-0.05	0.721	0.853
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	17mm	Ant 4	-	ECI 4	656000	3840	26.20	27.00	1.202		1.000	0.05	0.435	0.523
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	20mm	Ant 4	-	ECI 4	656000	3840	26.20	27.00	1.202		1.000	0.09	0.252	0.303
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 4	-	ECI 3	656000	3840	20.69	21.50	1.205		1.000	-0.05	0.617	0.744
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 4	-	ECI 3	656000	3840	20.69	21.50	1.205		1.000	-0.17	0.684	0.824
	FR1 n77	100M	QPSK	270	0	DFT-30	Front	5mm	Ant 4	-	ECI 3	656000	3840	20.66	21.50	1.213		1.000	0.01	0.609	0.739
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 4	-	ECI 3	656000	3840	20.66	21.50	1.213		1.000	0.15	0.691	0.838
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 5	-	ECI 3	656000	3840	22.92	23.00	1.019		1.000	-0.13	0.436	0.444
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 5	-	ECI 3	656000	3840	22.92	23.00	1.019		1.000	-0.04	0.768	0.782
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	17mm	Ant 5	-	ECI 4	656000	3840	26.81	27.00	1.045		1.000	0.07	0.481	0.503
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	20mm	Ant 5	-	ECI 4	656000	3840	26.81	27.00	1.045		1.000	0.03	0.450	0.470
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 5	-	ECI 3	656000	3840	22.85	23.00	1.035		1.000	0.02	0.412	0.426
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 5	-	ECI 3	656000	3840	22.85	23.00	1.035		1.000	0.12	0.742	0.768
	FR1 n77	100M	QPSK	270	0	DFT-30	Front	5mm	Ant 5	-	ECI 3	656000	3840	22.84	23.00	1.038		1.000	0.08	0.408	0.423
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 5	-	ECI 3	656000	3840	22.84	23.00	1.038		1.000	0.04	0.739	0.767
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 7	-	ECI 3	656000	3840	19.20	20.00	1.202		1.000	0.15	0.250	0.301
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 7	-	ECI 3	656000	3840	19.20	20.00	1.202		1.000	0.12	0.595	0.715
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 7	-	ECI 3	656000	3840	19.19	20.00	1.205		1.000	-0.09	0.262	0.316
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 7	-	ECI 3	656000	3840	19.19	20.00	1.205		1.000	-0.02	0.626	0.754
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	17mm	Ant 7	-	ECI 4	656000	3840	26.17	27.00	1.211		1.000	0.08	0.264	0.320
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	20mm	Ant 7	-	ECI 4	656000	3840	26.17	27.00	1.211		1.000	0.03	0.269	0.326
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 7	-	ECI 3	656000	3840	19.16	20.00	1.213		1.000	0.04	0.574	0.696
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 11	-	ECI 3	656000	3840	15.39	16.00	1.151		1.000	0.04	0.017	0.020
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 11	-	ECI 3	656000	3840	15.39	16.00	1.151		1.000	-0.16	0.722	0.831
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	17mm	Ant 11	-	ECI 4	656000	3840	26.41	27.00	1.146		1.000	-	n/a	n/a
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	20mm	Ant 11	-	ECI 4	656000	3840	26.41	27.00	1.146		1.000	0.07	0.504	0.577
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	5mm	Ant 11	-	ECI 3	656000	3840	15.35	16.00	1.161		1.000	-0.1	0.016	0.019
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 11	-	ECI 3	656000	3840	15.35	16.00	1.161		1.000	-0.03	0.703	0.816
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	5mm	Ant 11	-	ECI 3	656000	3840	15.33	16.00	1.167		1.000	0.09	0.688	0.803



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)
WLAN&BT																
74	Bluetooth	DH5 1Mbps	Front	5mm	Ant 3	Standalone Simultaneous	39	2441	17.40	18.50	1.288	76.6	1.087	-0.15	0.214	0.300
	Bluetooth	DH5 1Mbps	Back	5mm	Ant 3		39	2441	17.40	18.50	1.288	76.6	1.087	0.09	0.145	0.203
75	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	1	2412	20.40	22.00	1.445	98.39	1.016	0.13	0.413	0.607
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3		1	2412	20.40	22.00	1.445	98.39	1.016	0.08	0.331	0.486
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 3	Simultaneous WWAN+WLAN2.4G SISO1 WWAN+WLAN2.4G MIMO WWAN+WLAN2.4G SISO1+WIFI 5/6G SISO2	1	2412	18.99	20.50	1.416	98.39	1.016	0.08	0.289	0.416
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 3	Simultaneous WWAN+WLAN2.4G SISO1 WWAN+WLAN2.4G MIMO WWAN+WLAN2.4G SISO1+WIFI 5/6G SISO2	1	2412	18.99	20.50	1.416	98.39	1.016	0.05	0.241	0.347
	WLAN2.4GHz	802.11b 1Mbps	Front	17mm	Ant 3	Full Power	1	2412	20.40	22.00	1.445	98.39	1.016	0.09	0.062	0.091
	WLAN2.4GHz	802.11b 1Mbps	Back	20mm	Ant 3	Full Power	1	2412	20.40	22.00	1.445	98.39	1.016	-0.05	0.036	0.053
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6	Standalone	1	2412	20.90	22.00	1.288	98.39	1.016	0.07	0.287	0.376
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6		1	2412	20.90	22.00	1.288	98.39	1.016	0.05	0.395	0.517
	WLAN2.4GHz	802.11b 1Mbps	Front	5mm	Ant 6	Simultaneous WWAN+WLAN2.4G SISO2 WWAN+WLAN2.4G MIMO	1	2412	19.02	20.00	1.253	98.39	1.016	-0.06	0.191	0.243
	WLAN2.4GHz	802.11b 1Mbps	Back	5mm	Ant 6		1	2412	19.02	20.00	1.253	98.39	1.016	0.01	0.252	0.321
	WLAN2.4GHz	802.11b 1Mbps	Front	17mm	Ant 6	Full Power	1	2412	20.90	22.00	1.288	98.39	1.016	0.01	0.037	0.048
	WLAN2.4GHz	802.11b 1Mbps	Back	20mm	Ant 6	Full Power	1	2412	20.90	22.00	1.288	98.39	1.016	-0.03	0.024	0.031
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+7	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	58	5290	18.12	19.50	1.374	92.86	1.077	0.09	0.633	0.937
76	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		58	5290	18.12	19.50	1.374	92.86	1.077	0.05	0.714	1.057
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	5mm	Ant 5+7	Simultaneous WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	50	5250	13.21	14.50	1.346	85.92	1.164	0.09	0.211	0.331
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	5mm	Ant 5+7		50	5250	13.21	14.50	1.346	85.92	1.164	0.01	0.228	0.357
	WLAN5GHz	802.11n-HT40 MCS0	Front	17mm	Ant 5+7	Full Power	54	5270	21.22	22.00	1.197	86.49	1.156	0.08	0.272	0.376
	WLAN5GHz	802.11n-HT40 MCS0	Back	20mm	Ant 5+7	Full Power	54	5270	21.22	22.00	1.197	86.49	1.156	0.04	0.286	0.396
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+7	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	122	5610	18.29	19.50	1.321	92.86	1.077	0.02	0.514	0.731
77	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		122	5610	18.29	19.50	1.321	92.86	1.077	-0.01	0.747	1.063
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		138	5690	18.04	19.50	1.400	92.86	1.077	-0.09	0.688	1.037
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		106	5530	16.53	18.00	1.403	92.86	1.077	-0.07	0.501	0.757
	WLAN5GHz	802.11ac-VHT160 MCS0	Front	5mm	Ant 5+7	Simultaneous WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	114	5570	13.59	15.00	1.384	85.92	1.164	0.08	0.163	0.263
	WLAN5GHz	802.11ac-VHT160 MCS0	Back	5mm	Ant 5+7		114	5570	13.59	15.00	1.384	85.92	1.164	-0.01	0.219	0.353
	WLAN5GHz	802.11n-HT40 MCS0	Front	17mm	Ant 5+7	Full Power	110	5550	21.11	22.00	1.227	86.49	1.156	0.09	0.251	0.356
	WLAN5GHz	802.11n-HT40 MCS0	Back	20mm	Ant 5+7	Full Power	110	5550	21.11	22.00	1.227	86.49	1.156	-0.08	0.243	0.345
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+7	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	155	5775	19.25	20.50	1.334	92.86	1.077	0.06	0.538	0.773
78	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		155	5775	19.25	20.50	1.334	92.86	1.077	-0.08	0.741	1.064
	WLAN5GHz	802.11a 6Mbps	Front	17mm	Ant 5+7	Full Power	149	5745	21.82	23.00	1.312	93.29	1.072	0.04	0.213	0.300
	WLAN5GHz	802.11a 6Mbps	Back	20mm	Ant 5+7	Full Power	149	5745	21.82	23.00	1.312	93.29	1.072	0.03	0.183	0.257
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	5mm	Ant 5+7	Simultaneous WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	155	5775	13.79	15.00	1.321	92.86	1.077	0.06	0.172	0.245
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	5mm	Ant 5+7		155	5775	13.79	15.00	1.321	92.86	1.077	-0.07	0.226	0.322



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)	Reported APD (W/m^2)
	WLAN6GHz	802.11ax-HE80 MCS0	Front	5mm	Ant 5+7	Standalone Simultaneous DBS WIFI 2.4G SISO1+WIFI 6G SISO2 WLAN6G+BT WWAN+WLAN6G+BT WWAN + WIFI 2.4G SISO1+WIFI 6G SISO2	87	6385	18.36	20.00	1.460	90.65	1.103	-0.06	0.106	0.171	0.828
	WLAN6GHz	802.11ax-HE80 MCS0	Back	5mm	Ant 5+7		87	6385	18.36	20.00	1.460	90.65	1.103	-0.04	0.134	0.216	0.868
79	WLAN6GHz	802.11ax-HE80 MCS0	Back	5mm	Ant 5+7		7	5985	18.28	20.00	1.487	90.65	1.103	-0.11	0.133	0.218	0.884
	WLAN6GHz	802.11ax-HE80 MCS0	Back	5mm	Ant 5+7		103	6465	18.56	19.50	1.242	90.65	1.103	-0.02	0.127	0.174	0.855
	WLAN6GHz	802.11ax-HE80 MCS0	Back	5mm	Ant 5+7		135	6625	18.43	20.00	1.437	90.65	1.103	0.06	0.114	0.181	0.861
	WLAN6GHz	802.11ax-HE80 MCS0	Back	5mm	Ant 5+7		215	7025	19.50	21.00	1.412	90.65	1.103	0.02	0.118	0.184	0.884



16.4 Product specific 10g SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Reported 10g SAR (W/kg)
750Mhz																				
80	LTE Band 13	10M	QPSK	1	0		Left Side	0mm	Ant 1	ECI 6	23230	782	22.47	24.00	1.422		1.000	0.05	1.490	2.119
	LTE Band 13	10M	QPSK	25	0		Left Side	0mm	Ant 1	ECI 6	23230	782	21.35	23.00	1.462		1.000	-0.14	1.210	1.769
	LTE Band 13	10M	QPSK	50	0		Left Side	0mm	Ant 1	ECI 6	23230	782	21.23	23.00	1.503		1.000	0.05	1.080	1.623
81	FR1 n71	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 1	ECI 7	136100	680.5	22.73	24.00	1.340		1.000	0.12	0.927	1.242
	FR1 n71	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 1	ECI 7	136100	680.5	22.58	24.00	1.387		1.000	0.14	0.875	1.213
835Mhz																				
82	GSM850					GPRS 4TX Slot	Back	0mm	Ant 0	ECI 6	189	836.4	28.85	30.50	1.462		1.000	-0.06	1.600	2.339
	GSM850					GPRS 4TX Slot	Back	0mm	Ant 0	ECI 6	128	824.2	28.81	30.50	1.476		1.000	0.11	1.530	2.258
	GSM850					GPRS 4TX Slot	Back	0mm	Ant 0	ECI 6	251	848.8	28.79	30.50	1.483		1.000	0.08	1.480	2.194
83	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 1	ECI 7	166300	831.5	22.79	24.00	1.321		1.000	-0.13	1.120	1.480
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	0mm	Ant 1	ECI 7	166300	831.5	22.66	24.00	1.361		1.000	0.02	1.050	1.430
1750Mhz																				
	WCDMA IV					RMC 12.2Kbps	Front	0mm	Ant 2	ECI 6	1413	1732.6	19.88	21.70	1.521		1.000	-0.02	0.985	1.498
	WCDMA IV					RMC 12.2Kbps	Back	0mm	Ant 2	ECI 6	1413	1732.6	19.88	21.70	1.521		1.000	0.01	1.660	2.524
	WCDMA IV					RMC 12.2Kbps	Bottom Side	0mm	Ant 2	ECI 6	1413	1732.6	19.88	21.70	1.521		1.000	-0.16	1.470	2.235
	WCDMA IV					RMC 12.2Kbps	Back	0mm	Ant 2	ECI 6	1312	1712.4	19.81	21.70	1.545		1.000	-0.03	1.630	2.519
84	WCDMA IV					RMC 12.2Kbps	Back	0mm	Ant 2	ECI 6	1513	1752.6	19.82	21.70	1.542		1.000	0.12	1.760	2.713
	WCDMA IV					RMC 12.2Kbps	Bottom Side	0mm	Ant 2	ECI 6	1312	1712.4	19.81	21.70	1.545		1.000	-0.1	1.520	2.349
	WCDMA IV					RMC 12.2Kbps	Bottom Side	0mm	Ant 2	ECI 6	1513	1752.6	19.82	21.70	1.542		1.000	-0.09	1.690	2.605
	WCDMA IV					RMC 12.2Kbps	Front	5mm	Ant 2	ECI 4	1413	1732.6	22.13	24.00	1.538		1.000	0.05	0.528	0.812
	WCDMA IV					RMC 12.2Kbps	Back	8mm	Ant 2	ECI 4	1513	1752.6	22.11	24.00	1.545		1.000	0.12	0.509	0.787
	WCDMA IV					RMC 12.2Kbps	Bottom Side	9mm	Ant 2	ECI 4	1513	1752.6	22.11	24.00	1.545		1.000	0.04	0.684	1.057
85	LTE Band 66	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	132322	1745	23.22	24.00	1.197		1.000	0.06	2.440	2.920
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Back	0mm	Ant 2	ECI 6	132322 132520	1745 1764.8	23.15	24.00	1.216		1.000	0.02	2.180	2.651
	LTE Band 66	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	132322	1745	23.22	24.00	1.197		1.000	-0.07	1.360	1.628
	LTE Band 66	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	132072	1720	23.13	24.00	1.222		1.000	0.11	2.120	2.590
	LTE Band 66	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	132572	1770	23.13	24.00	1.222		1.000	-0.07	2.170	2.651
	LTE Band 66	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	132322	1745	22.21	23.00	1.199		1.000	0.17	2.350	2.819
	LTE Band 66	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	132072	1720	22.18	23.00	1.208		1.000	0.05	2.050	2.476
	LTE Band 66	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	132572	1770	22.16	23.00	1.213		1.000	0.04	2.130	2.585
	LTE Band 66	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	132322	1745	22.21	23.00	1.199		1.000	0.09	1.290	1.547
	LTE Band 66	20M	QPSK	100	0		Back	0mm	Ant 2	ECI 6	132322	1745	22.08	23.00	1.236		1.000	0.15	2.150	2.657
	LTE Band 66	20M	QPSK	1	0		Back	0mm	Ant 8	ECI 6	132322	1745	20.82	21.50	1.169		1.000	-0.02	0.728	0.851
	LTE Band 66	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	132322	1745	20.82	21.50	1.169		1.000	0.04	1.710	2.000
	LTE Band 66	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	132072	1720	20.81	21.50	1.172		1.000	0.16	1.790	2.098
	LTE Band 66C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Top Side	0mm	Ant 8	ECI 6	132322 132520	1745 1764.8	20.55	21.50	1.245		1.000	0.08	1.620	2.016
	LTE Band 66	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	132572	1770	20.69	21.50	1.205		1.000	0.06	1.630	1.964
	LTE Band 66	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 4	132322	1745	23.21	24.00	1.199		1.000	0.05	0.817	0.980
	LTE Band 66	20M	QPSK	1	0		Top Side	8mm	Ant 8	ECI 4	132072	1720	23.20	24.00	1.202		1.000	0.12	0.995	1.196
	LTE Band 66	20M	QPSK	50	0		Back	0mm	Ant 8	ECI 6	132322	1745	20.78	21.50	1.180		1.000	0.15	0.705	0.832
	LTE Band 66	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	132322	1745	20.78	21.50	1.180		1.000	-0.05	1.620	1.912
	LTE Band 66	20M	QPSK	100	0		Top Side	0mm	Ant 8	ECI 6	132322	1745	20.64	21.50	1.219		1.000	0.15	1.590	1.938
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	0mm	Ant 2	ECI 6	349000	1745	20.94	22.00	1.276		1.000	-0.09	1.480	1.889
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	0mm	Ant 2	ECI 6	349000	1745	20.94	22.00	1.276		1.000	0.16	1.800	2.298
86	FR1 n66	45M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	349000	1745	20.94	22.00	1.276		1.000	0.17	2.330	2.974
	FR1 n66	45M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	ECI 4	349000	1745	22.82	24.00	1.312		1.000	0.02	0.599	0.786
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	8mm	Ant 2	ECI 4	349000	1745	22.82	24.00	1.312		1.000	-0.14	0.752	0.987
	FR1 n66	45M	QPSK	1	1	DFT-15	Bottom Side	9mm	Ant 2	ECI 4	349000	1745	22.82	24.00	1.312		1.000	0.03	0.765	1.004
	FR1 n66	45M	QPSK	120	60	DFT-15	Front	0mm	Ant 2	ECI 6	349000	1745	20.93	22.00	1.279		1.000	0.17	1.420	1.817



	FR1 n66	45M	QPSK	120	60	DFT-15	Back	0mm	Ant 2	ECI 6	349000	1745	20.93	22.00	1.279		1.000	-0.02	1.760	2.252
	FR1 n66	45M	QPSK	120	60	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	349000	1745	20.93	22.00	1.279		1.000	0.15	2.120	2.712
	FR1 n66	45M	QPSK	240	0	DFT-15	Back	0mm	Ant 2	ECI 6	349000	1745	20.88	22.00	1.294		1.000	0.05	1.520	1.967
	FR1 n66	45M	QPSK	240	0	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	349000	1745	20.88	22.00	1.294		1.000	0.11	2.080	2.692
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	0mm	Ant 8	ECI 6	349000	1745	19.74	20.50	1.191		1.000	0.1	0.922	1.098
	FR1 n66	45M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 8	ECI 6	349000	1745	19.74	20.50	1.191		1.000	-0.15	1.880	2.240
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	ECI 4	349000	1745	23.06	24.00	1.242		1.000	0.05	0.625	0.776
	FR1 n66	45M	QPSK	1	1	DFT-15	Top Side	8mm	Ant 8	ECI 4	349000	1745	23.06	24.00	1.242		1.000	0.09	1.250	1.552
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	0mm	Ant 8	ECI 6	349000	1745	19.68	20.50	1.208		1.000	-0.1	0.898	1.085
	FR1 n66	45M	QPSK	120	60	DFT-15	Top Side	0mm	Ant 8	ECI 6	349000	1745	19.68	20.50	1.208		1.000	-0.05	1.760	2.126
	FR1 n66	45M	QPSK	240	0	DFT-15	Top Side	0mm	Ant 8	ECI 6	349000	1745	19.60	20.50	1.230		1.000	0.02	1.720	2.116
	FR1 n66	45M	QPSK	1	1	DFT-15	Back	0mm	Ant 9	ECI 6	349000	1745	22.91	24.00	1.285		1.000	0.04	0.458	0.589
	FR1 n66	45M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 9	ECI 6	349000	1745	22.91	24.00	1.285		1.000	0.02	1.730	2.224
	FR1 n66	45M	QPSK	120	60	DFT-15	Back	0mm	Ant 9	ECI 6	349000	1745	22.82	24.00	1.312		1.000	-0.07	0.442	0.580
	FR1 n66	45M	QPSK	120	60	DFT-15	Left Side	0mm	Ant 9	ECI 6	349000	1745	22.82	24.00	1.312		1.000	-0.12	1.680	2.204
	FR1 n66	45M	QPSK	240	0	DFT-15	Left Side	0mm	Ant 9	ECI 6	349000	1745	21.78	23.00	1.324		1.000	0.05	1.630	2.159
1900MHz																				
	GSM1900					GPRS 4TX Slot	Front	0mm	Ant 2	ECI 6	661	1880	22.73	23.80	1.279		1.000	0.04	1.950	2.495
	GSM1900					GPRS 4TX Slot	Back	0mm	Ant 2	ECI 6	661	1880	22.73	23.80	1.279		1.000	0.01	2.120	2.712
	GSM1900					GPRS 4TX Slot	Bottom Side	0mm	Ant 2	ECI 6	661	1880	22.73	23.80	1.279		1.000	0.07	1.610	2.060
	GSM1900					GPRS 4TX Slot	Front	0mm	Ant 2	ECI 6	512	1850.2	22.58	23.80	1.324		1.000	0.13	2.050	2.715
	GSM1900					GPRS 4TX Slot	Front	0mm	Ant 2	ECI 6	810	1909.8	22.70	23.80	1.288		1.000	0.15	1.660	2.138
87	GSM1900					GPRS 4TX Slot	Back	0mm	Ant 2	ECI 6	512	1850.2	22.58	23.80	1.324		1.000	0.04	2.250	2.980
	GSM1900					GPRS 4TX Slot	Back	0mm	Ant 2	ECI 6	810	1909.8	22.70	23.80	1.288		1.000	-0.04	1.920	2.473
	GSM1900					GPRS 4TX Slot	Bottom Side	0mm	Ant 2	ECI 6	512	1850.2	22.58	23.80	1.324		1.000	-0.11	1.820	2.410
	GSM1900					GPRS 4TX Slot	Bottom Side	0mm	Ant 2	ECI 6	810	1909.8	22.70	23.80	1.288		1.000	0.12	1.350	1.739
	GSM1900					GPRS 4TX Slot	Front	5mm	Ant 2	ECI 4	512	1850.2	25.79	27.00	1.321		1.000	0.08	1.210	1.599
	GSM1900					GPRS 4TX Slot	Back	8mm	Ant 2	ECI 4	512	1850.2	25.79	27.00	1.321		1.000	0.09	0.918	1.213
	GSM1900					GPRS 4TX Slot	Bottom Side	9mm	Ant 2	ECI 4	512	1850.2	25.79	27.00	1.321		1.000	0.15	0.973	1.286
	WCDMA II					RMC 12.2Kbps	Front	0mm	Ant 2	ECI 6	9400	1880	19.88	21.70	1.521		1.000	-0.16	1.630	2.478
88	WCDMA II					RMC 12.2Kbps	Back	0mm	Ant 2	ECI 6	9400	1880	19.88	21.70	1.521		1.000	-0.17	1.860	2.828
	WCDMA II					RMC 12.2Kbps	Bottom Side	0mm	Ant 2	ECI 6	9400	1880	19.88	21.70	1.521		1.000	-0.01	1.510	2.296
	WCDMA II					RMC 12.2Kbps	Front	0mm	Ant 2	ECI 6	9262	1852.4	19.86	21.70	1.528		1.000	0.09	1.570	2.398
	WCDMA II					RMC 12.2Kbps	Front	0mm	Ant 2	ECI 6	9538	1907.6	19.83	21.70	1.538		1.000	0.15	1.520	2.338
	WCDMA II					RMC 12.2Kbps	Back	0mm	Ant 2	ECI 6	9262	1852.4	19.86	21.70	1.528		1.000	-0.17	1.780	2.719
	WCDMA II					RMC 12.2Kbps	Back	0mm	Ant 2	ECI 6	9538	1907.6	19.83	21.70	1.538		1.000	-0.16	1.760	2.707
	WCDMA II					RMC 12.2Kbps	Bottom Side	0mm	Ant 2	ECI 6	9262	1852.4	19.86	21.70	1.528		1.000	0.02	1.480	2.261
	WCDMA II					RMC 12.2Kbps	Bottom Side	0mm	Ant 2	ECI 6	9538	1907.6	19.83	21.70	1.538		1.000	-0.03	1.410	2.169
	WCDMA II					RMC 12.2Kbps	Front	5mm	Ant 2	ECI 4	9400	1880	22.41	24.00	1.442		1.000	0.04	1.010	1.457
	WCDMA II					RMC 12.2Kbps	Back	8mm	Ant 2	ECI 4	9400	1880	22.41	24.00	1.442		1.000	0.08	0.961	1.386
	WCDMA II					RMC 12.2Kbps	Bottom Side	9mm	Ant 2	ECI 4	9400	1880	22.41	24.00	1.442		1.000	-0.13	1.060	1.529
	LTE Band 25	20M	QPSK	1	0		Front	0mm	Ant 2	ECI 6	26340	1880	22.28	23.00	1.180		1.000	-0.05	1.620	1.912
	LTE Band 25	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	26340	1880	22.28	23.00	1.180		1.000	-0.12	2.430	2.868
	LTE Band 25	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	26340	1880	22.28	23.00	1.180		1.000	0.03	1.510	1.782
89	LTE Band 25	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	26140	1860	22.25	23.00	1.189		1.000	-0.09	2.590	3.078
	LTE Band 2C	20M	QPSK	PCC:1,0 SCC:0,0			Back	0mm	Ant 2	ECI 6	18900 19098	1880 1899.8	21.97	23.00	1.268		1.000	0.05	1.860	2.358
	LTE Band 25	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	26590	1905	22.21	23.00	1.199		1.000	0.07	2.260	2.711
	LTE Band 25	20M	QPSK	1	0		Front	5mm	Ant 2	ECI 4	26340	1880	23.19	24.00	1.205		1.000	0.01	1.350	1.627
	LTE Band 25	20M	QPSK	1	0		Back	8mm	Ant 2	ECI 4	26140	1860	23.16	24.00	1.213		1.000	-0.12	1.020	1.238
	LTE Band 25	20M	QPSK	1	0		Bottom Side	9mm	Ant 2	ECI 4	26340	1880	23.10	24.00	1.230		1.000	0.09	1.080	1.329
	LTE Band 25	20M	QPSK	50	0		Front	0mm	Ant 2	ECI 6	26340	1880	22.23	23.00	1.194		1.000	0.07	1.580	1.887
	LTE Band 25	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	26340	1880	22.23	23.00	1.194		1.000	0.12	2.410	2.878
	LTE Band 25	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	26340	1880	22.23	23.00	1.194		1.000	0.14	1.490	1.779
	LTE Band 25	20M	QPSK	100	0		Back	0mm	Ant 2	ECI 6	26340	1880	22.22	23.00	1.197		1.000	0.05	2.250	2.693



	LTE Band 25	20M	QPSK	1	0		Back	0mm	Ant 8	ECI 6	26340	1880	21.31	22.00	1.172		1.000	0.04	0.572	0.670
	LTE Band 25	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	26340	1880	21.31	22.00	1.172		1.000	-0.13	2.050	2.403
	LTE Band 2C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Top Side	0mm	Ant 8	ECI 6	18900 19098	1880 1899.8	21.07	22.00	1.239		1.000	0.05	1.690	2.094
	LTE Band 25	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	26140	1860	21.14	22.00	1.219		1.000	0.17	1.900	2.316
	LTE Band 25	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	26590	1905	21.24	22.00	1.191		1.000	-0.15	1.750	2.085
	LTE Band 25	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 4	26340	1880	23.33	24.00	1.167		1.000	0.02	0.495	0.578
	LTE Band 25	20M	QPSK	1	0		Top Side	8mm	Ant 8	ECI 4	26340	1880	23.33	24.00	1.167		1.000	0.17	0.403	0.470
	LTE Band 25	20M	QPSK	50	0		Back	0mm	Ant 8	ECI 6	26340	1880	21.30	22.00	1.175		1.000	0.1	0.556	0.653
	LTE Band 25	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	26340	1880	21.30	22.00	1.175		1.000	-0.05	1.970	2.315
	LTE Band 25	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	26140	1860	21.12	22.00	1.225		1.000	0.02	1.850	2.266
	LTE Band 25	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	26590	1905	21.19	22.00	1.205		1.000	0.12	1.810	2.181
	LTE Band 25	20M	QPSK	100	0		Top Side	0mm	Ant 8	ECI 6	26340	1880	21.26	22.00	1.186		1.000	0.03	1.720	2.040
	LTE Band 25	20M	QPSK	1	0		Back	0mm	Ant 9	ECI 6	26340	1880	23.22	24.00	1.197		1.000	0.17	1.520	1.819
	LTE Band 25	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	26340	1880	23.22	24.00	1.197		1.000	0.06	1.680	2.011
	LTE Band 25	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	26140	1860	23.19	24.00	1.205		1.000	0	1.620	1.952
	LTE Band 25	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	26590	1905	23.01	24.00	1.256		1.000	-0.16	1.700	2.135
	LTE Band 2C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Left Side	0mm	Ant 9	ECI 6	18900 19098	1880 1899.8	23.06	24.00	1.242		1.000	0.07	1.580	1.962
	LTE Band 25	20M	QPSK	50	0		Back	0mm	Ant 9	ECI 6	26340	1880	22.16	23.00	1.213		1.000	-0.04	1.480	1.796
	LTE Band 25	20M	QPSK	50	0		Left Side	0mm	Ant 9	ECI 6	26340	1880	22.16	23.00	1.213		1.000	0.08	1.590	1.929
	LTE Band 25	20M	QPSK	100	0		Left Side	0mm	Ant 9	ECI 6	26340	1880	22.09	23.00	1.233		1.000	0.12	1.510	1.862
90	FR1 n2	40M	QPSK	1	1	DFT-15	Front	0mm	Ant 2	ECI 6	376000	1880	20.14	21.00	1.219		1.000	0.1	1.570	1.914
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	0mm	Ant 2	ECI 6	376000	1880	20.14	21.00	1.219		1.000	-0.05	2.360	2.877
	FR1 n2	40M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	376000	1880	20.14	21.00	1.219		1.000	-0.07	1.850	2.255
	FR1 n2	40M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	ECI 4	376000	1880	22.99	24.00	1.262		1.000	0.09	0.811	1.023
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	8mm	Ant 2	ECI 4	376000	1880	22.99	24.00	1.262		1.000	0.12	0.952	1.201
	FR1 n2	40M	QPSK	1	1	DFT-15	Bottom Side	9mm	Ant 2	ECI 4	376000	1880	22.99	24.00	1.262		1.000	0.02	0.915	1.155
	FR1 n2	40M	QPSK	108	54	DFT-15	Front	0mm	Ant 2	ECI 6	376000	1880	20.11	21.00	1.227		1.000	-0.11	1.540	1.890
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	0mm	Ant 2	ECI 6	376000	1880	20.11	21.00	1.227		1.000	-0.14	2.170	2.664
	FR1 n2	40M	QPSK	108	54	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	376000	1880	20.11	21.00	1.227		1.000	-0.09	1.740	2.136
	FR1 n2	40M	QPSK	216	0	DFT-15	Back	0mm	Ant 2	ECI 6	376000	1880	20.08	21.00	1.236		1.000	0.02	2.150	2.657
	FR1 n2	40M	QPSK	216	0	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	376000	1880	20.08	21.00	1.236		1.000	0.06	1.690	2.089
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	0mm	Ant 8	ECI 6	376000	1880	21.33	22.00	1.167		1.000	0.06	0.456	0.532
	FR1 n2	40M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 8	ECI 6	376000	1880	21.33	22.00	1.167		1.000	-0.01	1.690	1.972
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	ECI 4	376000	1880	23.14	24.00	1.219		1.000	0.08	0.414	0.505
	FR1 n2	40M	QPSK	1	1	DFT-15	Top Side	8mm	Ant 8	ECI 4	376000	1880	23.14	24.00	1.219		1.000	0.03	0.525	0.640
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	0mm	Ant 8	ECI 6	376000	1880	21.27	22.00	1.183		1.000	0.13	0.426	0.504
	FR1 n2	40M	QPSK	108	54	DFT-15	Top Side	0mm	Ant 8	ECI 6	376000	1880	21.27	22.00	1.183		1.000	-0.02	1.500	1.775
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	0mm	Ant 9	ECI 6	376000	1880	21.75	22.50	1.189		1.000	0.14	1.450	1.723
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 9	ECI 6	376000	1880	21.75	22.50	1.189		1.000	-0.02	1.670	1.985
	FR1 n2	40M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	ECI 4	376000	1880	23.10	24.00	1.230		1.000	0.14	0.653	0.803
	FR1 n2	40M	QPSK	1	1	DFT-15	Left Side	6mm	Ant 9	ECI 4	376000	1880	23.10	24.00	1.230		1.000	-0.02	1.080	1.329
	FR1 n2	40M	QPSK	108	54	DFT-15	Back	0mm	Ant 9	ECI 6	376000	1880	21.72	22.50	1.197		1.000	0.03	1.390	1.663
	FR1 n2	40M	QPSK	108	54	DFT-15	Left Side	0mm	Ant 9	ECI 6	376000	1880	21.72	22.50	1.197		1.000	0.11	1.570	1.879
2600MHz																				
	LTE Band 7	20M	QPSK	1	0		Front	0mm	Ant 2	ECI 6	21100	2535	20.78	21.50	1.180		1.000	-0.09	1.490	1.759
	LTE Band 7	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	21100	2535	20.78	21.50	1.180		1.000	-0.14	2.420	2.856
	LTE Band 7	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	21100	2535	20.78	21.50	1.180		1.000	0.08	2.040	2.408
	LTE Band 7	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	20850	2510	20.65	21.50	1.216		1.000	-0.08	2.200	2.676
91	LTE Band 7	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	21350	2560	20.77	21.50	1.183		1.000	-0.02	2.670	3.159
	LTE Band 7C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Back	0mm	Ant 2	ECI 6	21100 21298	2535 2554.8	20.62	21.50	1.225		1.000	0.03	2.230	2.731
	LTE Band 7 Protective Cover	20M	QPSK	1			Back	0mm	Ant 2	ECI 6	21350	2560	20.77	21.50	1.183		1.000	0.09	2.030	2.402
	LTE Band 7	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	20850	2510	20.65	21.50	1.216		1.000	0.07	2.120	2.578
	LTE Band 7	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	21350	2560	20.77	21.50	1.183		1.000	0.02	2.050	2.425
	LTE Band 7	20M	QPSK	1	0		Front	5mm	Ant 2	ECI 4	21100	2535	23.25	24.00	1.189		1.000	0.11	1.140	1.355



	LTE Band 7	20M	QPSK	1	0		Back	8mm	Ant 2	ECI 4	21350	2560	23.22	24.00	1.197		1.000	-0.05	0.756	0.905
	LTE Band 7	20M	QPSK	1	0		Bottom Side	9mm	Ant 2	ECI 4	20850	2510	23.24	24.00	1.191		1.000	0.01	1.210	1.441
	LTE Band 7	20M	QPSK	50	0		Front	0mm	Ant 2	ECI 6	21100	2535	20.77	21.50	1.183		1.000	0.15	1.290	1.526
	LTE Band 7	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	21100	2535	20.77	21.50	1.183		1.000	0.14	2.250	2.662
	LTE Band 7	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	21100	2535	20.77	21.50	1.183		1.000	0.04	1.910	2.260
	LTE Band 7	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	20850	2510	20.73	21.50	1.194		1.000	-0.04	2.220	2.651
	LTE Band 7	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	21350	2560	20.65	21.50	1.216		1.000	0.02	2.150	2.615
	LTE Band 7	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	20850	2510	20.73	21.50	1.194		1.000	0.13	1.890	2.257
	LTE Band 7	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	21350	2560	20.65	21.50	1.216		1.000	0.02	1.840	2.238
	LTE Band 7	20M	QPSK	100	0		Back	0mm	Ant 2	ECI 6	21100	2535	20.72	21.50	1.197		1.000	0.05	2.110	2.525
	LTE Band 7	20M	QPSK	100	0		Bottom Side	0mm	Ant 2	ECI 6	21100	2535	20.72	21.50	1.197		1.000	0.02	1.810	2.166
	LTE Band 7	20M	QPSK	1	0		Front	0mm	Ant 8	ECI 6	21100	2535	20.84	21.50	1.164		1.000	0.17	0.873	1.016
	LTE Band 7	20M	QPSK	1	0		Back	0mm	Ant 8	ECI 6	21100	2535	20.84	21.50	1.164		1.000	-0.13	0.546	0.636
	LTE Band 7	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	21100	2535	20.84	21.50	1.164		1.000	-0.16	1.740	2.026
	LTE Band 7	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	20850	2510	20.75	21.50	1.189		1.000	-0.04	1.750	2.080
	LTE Band 7C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Top Side	0mm	Ant 8	ECI 6	21100 21298	2535 2554.8	20.71	21.50	1.199		1.000	0.03	1.560	1.871
	LTE Band 7	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	21350	2560	20.82	21.50	1.169		1.000	-0.08	1.680	1.965
	LTE Band 7	20M	QPSK	1	0		Front	6mm	Ant 8	ECI 4	21100	2535	23.45	24.00	1.135		1.000	0.03	0.540	0.613
	LTE Band 7	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 4	21100	2535	23.45	24.00	1.135		1.000	0.08	0.851	0.966
	LTE Band 7	20M	QPSK	1	0		Top Side	8mm	Ant 8	ECI 4	20850	2510	23.26	24.00	1.186		1.000	0.05	0.725	0.860
	LTE Band 7	20M	QPSK	50	0		Front	0mm	Ant 8	ECI 6	21100	2535	20.83	21.50	1.167		1.000	0.13	0.852	0.994
	LTE Band 7	20M	QPSK	50	0		Back	0mm	Ant 8	ECI 6	21100	2535	20.83	21.50	1.167		1.000	0	0.533	0.622
	LTE Band 7	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	21100	2535	20.83	21.50	1.167		1.000	0.13	1.650	1.925
	LTE Band 7	20M	QPSK	100	0		Top Side	0mm	Ant 8	ECI 6	21100	2535	20.80	21.50	1.175		1.000	0.09	1.620	1.903
	LTE Band 7	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	21100	2535	21.17	22.00	1.211		1.000	-0.17	1.750	2.119
	LTE Band 7	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	20850	2510	21.14	22.00	1.219		1.000	-0.13	1.490	1.816
	LTE Band 7	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	21350	2560	21.04	22.00	1.247		1.000	-0.17	1.780	2.220
	LTE Band 7C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Left Side	0mm	Ant 9	ECI 6	21100 21298	2535 2554.8	20.99	22.00	1.262		1.000	0.11	1.520	1.918
	LTE Band 7	20M	QPSK	1	0		Left Side	6mm	Ant 9	ECI 4	21350	2560	23.24	24.00	1.191		1.000	-0.03	0.971	1.157
	LTE Band 7	20M	QPSK	50	0		Left Side	0mm	Ant 9	ECI 6	21100	2535	21.13	22.00	1.222		1.000	0.08	1.590	1.943
	LTE Band 7	20M	QPSK	100	0		Left Side	0mm	Ant 9	ECI 6	21100	2535	21.05	22.00	1.245		1.000	0.12	1.480	1.842
	LTE Band 41	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	40620	2593	22.28	23.00	1.180	62.9	1.006	-0.08	2.490	2.957
	LTE Band 41	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	40620	2593	22.28	23.00	1.180	62.9	1.006	0.08	1.540	1.829
	LTE Band 41	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	39750	2506	22.23	23.00	1.194	62.9	1.006	-0.13	2.080	2.498
	LTE Band 41	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	40185	2549.5	22.23	23.00	1.194	62.9	1.006	-0.06	2.380	2.859
92	LTE Band 41	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	41055	2636.5	22.24	23.00	1.191	62.9	1.006	0.09	2.500	2.996
	LTE Band 41 PC2	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	41055	2636.5	23.57	24.60	1.268	42.9	1.009	0.02	2.220	2.840
	LTE Band 41C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Back	0mm	Ant 2	ECI 6	40620 40818	2593 2612.8	22.19	23.00	1.205	62.9	1.006	0.18	2.180	2.643
	LTE Band 41	20M	QPSK	1	0		Back	0mm	Ant 2	ECI 6	41490	2680	22.26	23.00	1.186	62.9	1.006	0.17	2.210	2.636
	LTE Band 41	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	39750	2506	22.23	23.00	1.194	62.9	1.006	0.05	1.410	1.694
	LTE Band 41	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	40185	2549.5	22.23	23.00	1.194	62.9	1.006	-0.13	1.450	1.742
	LTE Band 41	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	41055	2636.5	22.24	23.00	1.191	62.9	1.006	0.07	1.620	1.941
	LTE Band 41	20M	QPSK	1	0		Bottom Side	0mm	Ant 2	ECI 6	41490	2680	22.26	23.00	1.186	62.9	1.006	-0.05	1.360	1.622
	LTE Band 41	20M	QPSK	1	0		Back	8mm	Ant 2	ECI 4	41055	2636.5	23.15	24.00	1.216	62.9	1.006	0.05	0.692	0.847
	LTE Band 41	20M	QPSK	1	0		Bottom Side	9mm	Ant 2	ECI 4	41055	2636.5	23.15	24.00	1.216	62.9	1.006	0.07	0.952	1.165
	LTE Band 41	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	40620	2593	22.16	23.00	1.213	62.9	1.006	0.11	2.420	2.954
	LTE Band 41	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	40620	2593	22.16	23.00	1.213	62.9	1.006	-0.08	1.490	1.819
	LTE Band 41	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	39750	2506	22.10	23.00	1.230	62.9	1.006	0.05	2.010	2.488
	LTE Band 41	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	40185	2549.5	22.15	23.00	1.216	62.9	1.006	0.09	2.330	2.851
	LTE Band 41	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	41055	2636.5	22.15	23.00	1.216	62.9	1.006	-0.12	2.420	2.961
	LTE Band 41	20M	QPSK	50	0		Back	0mm	Ant 2	ECI 6	41490	2680	22.12	23.00	1.225	62.9	1.006	0.03	2.130	2.624
	LTE Band 41	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	39750	2506	22.10	23.00	1.230	62.9	1.006	-0.07	1.350	1.671
	LTE Band 41	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	40185	2549.5	22.15	23.00	1.216	62.9	1.006	0.02	1.310	1.603
	LTE Band 41	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	41055	2636.5	22.15	23.00	1.216	62.9	1.006	0.08	1.280	1.566



	LTE Band 41	20M	QPSK	50	0		Bottom Side	0mm	Ant 2	ECI 6	41490	2680	22.12	23.00	1.225	62.9	1.006	0.12	1.260	1.552
	LTE Band 41	20M	QPSK	100	0		Back	0mm	Ant 2	ECI 6	40620	2593	22.08	23.00	1.236	62.9	1.006	0.03	2.310	2.872
	LTE Band 41	20M	QPSK	100	0		Bottom Side	0mm	Ant 2	ECI 6	40620	2593	22.08	23.00	1.236	62.9	1.006	0.12	1.420	1.766
	LTE Band 41	20M	QPSK	1	0		Back	0mm	Ant 8	ECI 6	40620	2593	23.24	24.00	1.191	62.9	1.006	-0.17	0.431	0.517
	LTE Band 41	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	40620	2593	23.24	24.00	1.191	62.9	1.006	-0.07	1.470	1.762
	LTE Band 41	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	39750	2506	23.05	24.00	1.245	62.9	1.006	-0.03	1.350	1.690
	LTE Band 41	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	40185	2549.5	23.22	24.00	1.197	62.9	1.006	-0.11	1.280	1.541
	LTE Band 41	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	41055	2636.5	22.91	24.00	1.285	62.9	1.006	0.02	1.420	1.836
	LTE Band 41	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	41490	2680	22.94	24.00	1.276	62.9	1.006	0.11	1.560	2.003
	LTE Band 41 PC2	20M	QPSK	1	0		Top Side	0mm	Ant 8	ECI 6	41490	2680	24.55	25.60	1.274	42.9	1.009	0.09	1.560	2.005
	LTE Band 41C PC2	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Top Side	0mm	Ant 8	ECI 6	40620 40818	2593 2612.8	24.43	25.60	1.309	42.9	1.009	0.05	1.410	1.863
	LTE Band 41	20M	QPSK	1	0		Back	5mm	Ant 8	ECI 4	41490	2680	23.24	24.00	1.191	62.9	1.006	0.07	0.425	0.509
	LTE Band 41 PC2	20M	QPSK	1	0		Top Side	8mm	Ant 8	ECI 4	41490	2680	25.50	27.00	1.413	42.9	1.009	0.12	0.494	0.704
	LTE Band 41	20M	QPSK	50	0		Back	0mm	Ant 8	ECI 6	40620	2593	22.21	23.00	1.199	62.9	1.006	0.05	0.411	0.496
	LTE Band 41	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	40620	2593	22.21	23.00	1.199	62.9	1.006	-0.03	1.420	1.714
	LTE Band 41	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	39750	2506	22.11	23.00	1.227	62.9	1.006	0.03	1.280	1.581
	LTE Band 41	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	40185	2549.5	22.20	23.00	1.202	62.9	1.006	0.12	1.210	1.463
	LTE Band 41	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	41055	2636.5	21.95	23.00	1.274	62.9	1.006	-0.05	1.310	1.678
	LTE Band 41	20M	QPSK	50	0		Top Side	0mm	Ant 8	ECI 6	41490	2680	21.82	23.00	1.312	62.9	1.006	0.03	1.420	1.875
	LTE Band 41	20M	QPSK	100	0		Top Side	0mm	Ant 8	ECI 6	40620	2593	22.17	23.00	1.211	62.9	1.006	0.05	1.350	1.644
	LTE Band 41	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	40620	2593	23.42	24.00	1.143	62.9	1.006	-0.09	1.590	1.828
	LTE Band 41	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	39750	2506	23.41	24.00	1.146	62.9	1.006	0.14	1.410	1.625
	LTE Band 41	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	40185	2549.5	23.31	24.00	1.172	62.9	1.006	0.04	1.560	1.840
	LTE Band 41	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	41055	2636.5	23.25	24.00	1.189	62.9	1.006	0.05	1.770	2.116
	LTE Band 41	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	41490	2680	23.05	24.00	1.245	62.9	1.006	-0.1	1.970	2.466
	LTE Band 41C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Left Side	0mm	Ant 9	ECI 6	40620 40818	2593 2612.8	23.36	24.00	1.159	62.9	1.006	0.05	1.720	2.005
	LTE Band 41 PC2	20M	QPSK	1	0		Left Side	0mm	Ant 9	ECI 6	41490	2680	24.81	25.60	1.199	42.9	1.009	0.09	1.830	2.215
	LTE Band 41	20M	QPSK	1	0		Left Side	6mm	Ant 9	ECI 4	41490	2680	23.05	24.00	1.245	62.9	1.006	0.05	0.650	0.814
	LTE Band 41	20M	QPSK	50	0		Left Side	0mm	Ant 9	ECI 6	40620	2593	22.38	23.00	1.153	62.9	1.006	-0.17	1.520	1.764
	LTE Band 41	20M	QPSK	50	0		Left Side	0mm	Ant 9	ECI 6	39750	2506	22.36	23.00	1.159	62.9	1.006	0.05	1.380	1.609
	LTE Band 41	20M	QPSK	50	0		Left Side	0mm	Ant 9	ECI 6	40185	2549.5	22.31	23.00	1.172	62.9	1.006	0.03	1.520	1.792
	LTE Band 41	20M	QPSK	50	0		Left Side	0mm	Ant 9	ECI 6	41055	2636.5	22.07	23.00	1.239	62.9	1.006	0.07	1.690	2.106
	LTE Band 41	20M	QPSK	50	0		Left Side	0mm	Ant 9	ECI 6	41490	2680	22.02	23.00	1.253	62.9	1.006	-0.14	1.840	2.320
	LTE Band 41	20M	QPSK	100	0		Left Side	0mm	Ant 9	ECI 6	40620	2593	22.31	23.00	1.172	62.9	1.006	0.03	1.710	2.016
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	0mm	Ant 2	ECI 6	507000	2535	18.62	19.50	1.225		1.000	-0.1	1.270	1.555
93	FR1 n7	50M	QPSK	1	1	DFT-15	Back	0mm	Ant 2	ECI 6	507000	2535	18.62	19.50	1.225		1.000	-0.12	2.410	2.951
	FR1 n7	50M	QPSK	1	1	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	507000	2535	18.62	19.50	1.225		1.000	0.14	1.960	2.400
	FR1 n7	50M	QPSK	1	1	DFT-15	Front	5mm	Ant 2	ECI 4	507000	2535	22.96	24.00	1.271		1.000	0.05	0.611	0.776
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	8mm	Ant 2	ECI 4	507000	2535	22.96	24.00	1.271		1.000	0.07	0.725	0.921
	FR1 n7	50M	QPSK	1	1	DFT-15	Bottom Side	9mm	Ant 2	ECI 4	507000	2535	22.96	24.00	1.271		1.000	0.01	1.110	1.410
	FR1 n7	50M	QPSK	135	68	DFT-15	Front	0mm	Ant 2	ECI 6	507000	2535	18.58	19.50	1.236		1.000	-0.11	1.210	1.495
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	0mm	Ant 2	ECI 6	507000	2535	18.58	19.50	1.236		1.000	-0.02	2.340	2.892
	FR1 n7	50M	QPSK	135	68	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	507000	2535	18.58	19.50	1.236		1.000	-0.02	1.910	2.361
	FR1 n7	50M	QPSK	270	0	DFT-15	Back	0mm	Ant 2	ECI 6	507000	2535	18.53	19.50	1.250		1.000	0.08	2.150	2.688
	FR1 n7	50M	QPSK	270	0	DFT-15	Bottom Side	0mm	Ant 2	ECI 6	507000	2535	18.53	19.50	1.250		1.000	0.03	1.880	2.350
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	0mm	Ant 8	ECI 6	507000	2535	20.16	21.00	1.213		1.000	-0.16	0.991	1.202
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	0mm	Ant 8	ECI 6	507000	2535	20.16	21.00	1.213		1.000	0.09	1.810	2.196
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 8	ECI 4	507000	2535	23.03	24.00	1.250		1.000	0.04	0.789	0.986
	FR1 n7	50M	QPSK	1	1	DFT-15	Top Side	8mm	Ant 8	ECI 4	507000	2535	23.03	24.00	1.250		1.000	0.05	0.618	0.773
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	0mm	Ant 8	ECI 6	507000	2535	20.12	21.00	1.225		1.000	-0.11	0.975	1.194
	FR1 n7	50M	QPSK	135	68	DFT-15	Top Side	0mm	Ant 8	ECI 6	507000	2535	20.12	21.00	1.225		1.000	-0.08	1.670	2.045
	FR1 n7	50M	QPSK	270	0	DFT-15	Top Side	0mm	Ant 8	ECI 6	507000	2535	20.06	21.00	1.242		1.000	0.02	1.620	2.011
	FR1 n7	50M	QPSK	1	1	DFT-15	Back	0mm	Ant 9	ECI 6	507000	2535	20.96	22.00	1.271		1.000	-0.15	1.160	1.474
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	0mm	Ant 9	ECI 6	507000	2535	20.96	22.00	1.271		1.000	0.11	1.880	2.389



	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 9	ECI 4	507000	2535	22.82	24.00	1.312		1.000	0.06	0.489	0.642
	FR1 n7	50M	QPSK	1	1	DFT-15	Left Side	6mm	Ant 9	ECI 4	507000	2535	22.82	24.00	1.312		1.000	0.02	0.735	0.964
	FR1 n7	50M	QPSK	135	68	DFT-15	Back	0mm	Ant 9	ECI 6	507000	2535	20.94	22.00	1.276		1.000	-0.1	1.110	1.417
	FR1 n7	50M	QPSK	135	68	DFT-15	Left Side	0mm	Ant 9	ECI 6	507000	2535	20.94	22.00	1.276		1.000	0.05	1.710	2.183
	FR1 n7	50M	QPSK	270	0	DFT-15	Left Side	0mm	Ant 9	ECI 6	507000	2535	20.90	22.00	1.288		1.000	0.02	1.620	2.087
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 2	ECI 6	518598	2592.99	18.14	19.00	1.219		1.000	0.07	1.420	1.731
94	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 2	ECI 6	518598	2592.99	18.14	19.00	1.219		1.000	-0.05	2.350	2.865
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 2	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.08	1.640	2.093
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	0mm	Ant 2	ECI 6	518598	2592.99	18.14	19.00	1.219		1.000	-0.04	1.650	2.011
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 2	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.03	2.110	2.693
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	8mm	Ant 2	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.06	2.180	2.783
	FR1 n41	100M	QPSK	1	1	DFT-30	Bottom Side	9mm	Ant 2	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.05	2.050	2.617
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 2	ECI 6	518598	2592.99	18.04	19.00	1.247		1.000	0.16	1.380	1.721
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 2	ECI 6	518598	2592.99	18.04	19.00	1.247		1.000	-0.08	2.250	2.807
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 2	ECI 4	518598	2592.99	25.85	27.00	1.303		1.000	-0.11	1.580	2.059
	FR1 n41	100M	QPSK	135	69	DFT-30	Bottom Side	0mm	Ant 2	ECI 6	518598	2592.99	18.04	19.00	1.247		1.000	-0.16	1.590	1.983
	FR1 n41	100M	QPSK	270	0	DFT-30	Front	0mm	Ant 2	ECI 6	518598	2592.99	18.03	19.00	1.250		1.000	0.03	1.310	1.638
	FR1 n41	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 2	ECI 6	518598	2592.99	18.03	19.00	1.250		1.000	0.04	2.180	2.726
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 2	ECI 4	518598	2592.99	24.75	26.00	1.334		1.000	-0.05	1.190	1.587
	FR1 n41	100M	QPSK	270	0	DFT-30	Bottom Side	0mm	Ant 2	ECI 6	518598	2592.99	18.03	19.00	1.250		1.000	0.07	1.530	1.913
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 8	ECI 6	518598	2592.99	20.55	21.50	1.245		1.000	-0.15	0.752	0.936
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 8	ECI 6	518598	2592.99	20.55	21.50	1.245		1.000	0.04	0.734	0.913
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 8	ECI 6	518598	2592.99	20.55	21.50	1.245		1.000	0.02	1.610	2.004
	FR1 n41	100M	QPSK	1	1	DFT-30	Front	6mm	Ant 8	ECI 4	518598	2592.99	25.82	27.00	1.312		1.000	0.05	0.528	0.693
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 8	ECI 4	518598	2592.99	25.82	27.00	1.312		1.000	0.07	0.865	1.135
	FR1 n41	100M	QPSK	1	1	DFT-30	Top Side	8mm	Ant 8	ECI 4	518598	2592.99	25.82	27.00	1.312		1.000	0.04	1.250	1.640
	FR1 n41	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 8	ECI 6	518598	2592.99	20.46	21.50	1.271		1.000	-0.11	0.725	0.921
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 8	ECI 6	518598	2592.99	20.46	21.50	1.271		1.000	-0.09	0.702	0.892
	FR1 n41	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 8	ECI 6	518598	2592.99	20.46	21.50	1.271		1.000	0.11	1.520	1.931
	FR1 n41	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 8	ECI 6	518598	2592.99	20.41	21.50	1.285		1.000	0.05	1.450	1.864
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 9	ECI 6	518598	2592.99	20.34	21.00	1.164		1.000	-0.15	1.040	1.211
	FR1 n41	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 9	ECI 6	518598	2592.99	20.34	21.00	1.164		1.000	0.04	1.670	1.944
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 9	ECI 6	518598	2592.99	20.28	21.00	1.180		1.000	-0.15	1.010	1.192
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 9	ECI 6	518598	2592.99	20.28	21.00	1.180		1.000	0.05	1.780	2.101
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	5mm	Ant 9	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.07	0.689	0.879
	FR1 n41	100M	QPSK	135	69	DFT-30	Left Side	6mm	Ant 9	ECI 4	518598	2592.99	25.94	27.00	1.276		1.000	0.06	1.180	1.506
	FR1 n41	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 9	ECI 6	518598	2592.99	20.25	21.00	1.189		1.000	0.08	1.550	1.842
	FR1 n41	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 6	ECI 7	518598	2592.99	22.12	23.00	1.225		1.000	-0.15	0.289	0.354
	FR1 n41	100M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 6	ECI 7	518598	2592.99	22.12	23.00	1.225		1.000	0.04	1.580	1.935
	FR1 n41	100M	QPSK	1	137	DFT-30	Back	2mm	Ant 6	ECI 4	518598	2592.99	22.96	24.00	1.271		1.000	0.09	0.722	0.917
	FR1 n41	100M	QPSK	1	137	DFT-30	Right Side	7mm	Ant 6	ECI 4	518598	2592.99	22.96	24.00	1.271		1.000	0.12	1.110	1.410
	FR1 n41	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 6	ECI 7	518598	2592.99	22.06	23.00	1.242		1.000	-0.15	0.285	0.354
	FR1 n41	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 6	ECI 7	518598	2592.99	22.06	23.00	1.242		1.000	0.05	1.540	1.912
	FR1 n41	100M	QPSK	270	0	DFT-30	Right Side	0mm	Ant 6	ECI 7	518598	2592.99	21.86	23.00	1.300		1.000	0.09	1.450	1.885
3000-4000MHz																				
	LTE Band 42	20M	QPSK	1	0		Back	0mm	Ant 4	ECI 6	42590	3500	22.10	23.00	1.230	62.9	1.006	-0.07	0.725	0.897
	LTE Band 42	20M	QPSK	1	0		Left Side	0mm	Ant 4	ECI 6	42590	3500	22.10	23.00	1.230	62.9	1.006	-0.02	0.819	1.014
	LTE Band 42	20M	QPSK	1	0		Top Side	0mm	Ant 4	ECI 6	42590	3500	22.10	23.00	1.230	62.9	1.006	-0.05	1.610	1.993
	LTE Band 42C	20M	QPSK	PCC:1, 0 SCC:0, 0			Top Side	0mm	Ant 4	ECI 6	42590 42788	3500 3519.8	21.56	23.00	1.393	62.9	1.006	0.05	1.390	1.948
	LTE Band 42	20M	QPSK	1	0		Back	5mm	Ant 4	ECI 4	42590	3500	22.75	24.00	1.334	62.9	1.006	0.07	0.720	0.966
	LTE Band 42	20M	QPSK	1	0		Left Side	6mm	Ant 4	ECI 4	42590	3500	22.75	24.00	1.334	62.9	1.006	-0.08	0.565	0.758
	LTE Band 42	20M	QPSK	1	0		Top Side	8mm	Ant 4	ECI 4	42590	3500	22.75	24.00	1.334	62.9	1.006	0.02	0.483	0.648
	LTE Band 42	20M	QPSK	50	0		Back	0mm	Ant 4	ECI 6	42590	3500	22.06	23.00	1.242	62.9	1.006	-0.01	0.697	0.871
	LTE Band 42	20M	QPSK	50	0		Left Side	0mm	Ant 4	ECI 6	42590	3500	22.06	23.00	1.242	62.9	1.006	-0.08	0.785	0.981



	LTE Band 42	20M	QPSK	50	0		Top Side	0mm	Ant 4	ECI 6	42590	3500	22.06	23.00	1.242	62.9	1.006	0.01	1.460	1.824
	LTE Band 42	20M	QPSK	1	0		Back	0mm	Ant 11	ECI 6	42590	3500	22.02	23.00	1.253	62.9	1.006	0.15	1.590	2.004
95	LTE Band 42	20M	QPSK	1	0		Back	0mm	Ant 11	ECI 6	42190	3460	21.92	23.00	1.282	62.9	1.006	0.12	1.670	2.154
	LTE Band 42C	20M	QPSK	PCC:1 : 0 SCC:0 : 0			Back	0mm	Ant 11	ECI 6	42590 42788	3500 3519.8	21.90	23.00	1.288	62.9	1.006	0.03	1.460	1.892
	LTE Band 42	20M	QPSK	1	0		Back	0mm	Ant 11	ECI 6	42990	3540	21.89	23.00	1.291	62.9	1.006	0.07	1.520	1.974
	LTE Band 42	20M	QPSK	1	0		Back	6mm	Ant 11	ECI 4	42190	3460	23.10	24.00	1.230	62.9	1.006	0.13	1.020	1.262
	LTE Band 42	20M	QPSK	50	0		Back	0mm	Ant 11	ECI 6	42590	3500	21.87	23.00	1.297	62.9	1.006	-0.12	1.490	1.944
	LTE Band 42	20M	QPSK	100	0		Back	0mm	Ant 11	ECI 6	42590	3500	21.84	23.00	1.306	62.9	1.006	0.05	1.420	1.866
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 4	ECI 6	656000	3840	21.76	22.50	1.186		1.000	0.13	1.630	1.933
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 4	ECI 6	656000	3840	21.76	22.50	1.186		1.000	-0.03	1.800	2.134
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 4	ECI 6	656000	3840	21.76	22.50	1.186		1.000	0.11	1.920	2.277
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 4	ECI 6	656000	3840	21.76	22.50	1.186		1.000	-0.13	1.410	1.672
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	6mm	Ant 4	ECI 4	656000	3840	26.20	27.00	1.202		1.000	0.05	0.985	1.184
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	5mm	Ant 4	ECI 4	656000	3840	26.20	27.00	1.202		1.000	0.09	1.050	1.262
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	6mm	Ant 4	ECI 4	656000	3840	26.20	27.00	1.202		1.000	0.12	0.836	1.005
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	8mm	Ant 4	ECI 4	656000	3840	26.20	27.00	1.202		1.000	-0.05	0.550	0.661
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 4	ECI 6	656000	3840	21.74	22.50	1.191		1.000	-0.01	1.570	1.870
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 4	ECI 6	656000	3840	21.74	22.50	1.191		1.000	0.16	1.750	2.085
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 4	ECI 6	656000	3840	21.74	22.50	1.191		1.000	-0.09	1.890	2.251
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 4	ECI 6	656000	3840	21.74	22.50	1.191		1.000	0.07	1.350	1.608
	FR1 n77	100M	QPSK	270	0	DFT-30	Front	0mm	Ant 4	ECI 6	656000	3840	21.71	22.50	1.199		1.000	0.05	1.480	1.775
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 4	ECI 6	656000	3840	21.71	22.50	1.199		1.000	0.15	1.620	1.943
	FR1 n77	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 4	ECI 6	656000	3840	21.71	22.50	1.199		1.000	-0.03	1.810	2.171
	FR1 n77	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 4	ECI 6	656000	3840	21.71	22.50	1.199		1.000	0.07	1.290	1.547
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 5	ECI 6	656000	3840	22.42	22.50	1.019		1.000	-0.08	0.870	0.886
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 5	ECI 6	656000	3840	22.42	22.50	1.019		1.000	-0.16	0.345	0.351
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	0mm	Ant 5	ECI 6	656000	3840	22.42	22.50	1.019		1.000	0.14	0.781	0.796
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 5	ECI 6	656000	3840	22.42	22.50	1.019		1.000	-0.16	1.870	1.905
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 5	ECI 4	656000	3840	26.81	27.00	1.045		1.000	0.09	0.688	0.719
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	2mm	Ant 5	ECI 4	656000	3840	26.81	27.00	1.045		1.000	0.01	0.785	0.820
	FR1 n77	100M	QPSK	1	1	DFT-30	Right Side	7mm	Ant 5	ECI 4	656000	3840	26.81	27.00	1.045		1.000	-0.07	0.906	0.947
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	6mm	Ant 5	ECI 4	656000	3840	26.81	27.00	1.045		1.000	0.01	1.650	1.724
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 5	ECI 6	656000	3840	22.35	22.50	1.035		1.000	-0.14	0.852	0.882
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 5	ECI 6	656000	3840	22.35	22.50	1.035		1.000	0.01	0.331	0.343
	FR1 n77	100M	QPSK	135	69	DFT-30	Right Side	0mm	Ant 5	ECI 6	656000	3840	22.35	22.50	1.035		1.000	-0.02	0.752	0.778
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 5	ECI 6	656000	3840	22.35	22.50	1.035		1.000	-0.01	1.830	1.894
	FR1 n77	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 5	ECI 6	656000	3840	22.34	22.50	1.038		1.000	0.05	1.780	1.847
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	0mm	Ant 7	ECI 6	656000	3840	20.76	21.50	1.186		1.000	-0.17	0.885	1.049
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 7	ECI 6	656000	3840	20.76	21.50	1.186		1.000	-0.14	0.549	0.651
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	0mm	Ant 7	ECI 6	656000	3840	20.76	21.50	1.186		1.000	0.07	1.760	2.087
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	5mm	Ant 7	ECI 4	656000	3840	26.17	27.00	1.211		1.000	0.15	0.665	0.805
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	2mm	Ant 7	ECI 4	656000	3840	26.17	27.00	1.211		1.000	0.03	1.370	1.659
	FR1 n77	100M	QPSK	1	1	DFT-30	Top Side	6mm	Ant 7	ECI 4	656000	3840	26.17	27.00	1.211		1.000	0.08	0.932	1.128
	FR1 n77	100M	QPSK	135	69	DFT-30	Front	0mm	Ant 7	ECI 6	656000	3840	20.69	21.50	1.205		1.000	0.08	0.853	1.028
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 7	ECI 6	656000	3840	20.69	21.50	1.205		1.000	-0.11	0.516	0.622
	FR1 n77	100M	QPSK	135	69	DFT-30	Top Side	0mm	Ant 7	ECI 6	656000	3840	20.69	21.50	1.205		1.000	0.02	1.680	2.024
	FR1 n77	100M	QPSK	270	0	DFT-30	Front	0mm	Ant 7	ECI 6	656000	3840	20.65	21.50	1.216		1.000	0.09	0.837	1.018
	FR1 n77	100M	QPSK	270	0	DFT-30	Top Side	0mm	Ant 7	ECI 6	656000	3840	20.65	21.50	1.216		1.000	0.08	1.520	1.849
96	FR1 n77	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 6	656000	3840	17.90	18.50	1.148		1.000	-0.09	2.020	2.319
	FR1 n77	100M	QPSK	1	1	DFT-30	Left Side	0mm	Ant 11	ECI 4	656000	3840	26.41	27.00	1.146		1.000	-0.07	1.420	1.627
	FR1 n77	100M	QPSK	1	1	DFT-30	Back	6mm	Ant 11	ECI 4	656000	3840	26.41	27.00	1.146		1.000	0.03	1.880	2.154
	FR1 n77	100M	QPSK	135	69	DFT-30	Back	0mm	Ant 11	ECI 6	656000	3840	17.87	18.50	1.156		1.000	-0.09	1.960	2.266
	FR1 n77	100M	QPSK	135	69	DFT-30	Left Side	0mm	Ant 11	ECI 4	656000	3840	26.35	27.00	1.161		1.000	0.06	1.310	1.521
	FR1 n77	100M	QPSK	270	0	DFT-30	Back	0mm	Ant 11	ECI 6	656000	3840	17.79	18.50	1.178		1.000	0.03	1.750	2.061



FCC SAR Test Report

Report No. : FA5D1519

FR1 n77	100M	QPSK	270	0	DFT-30	Left Side	0mm	Ant 11	ECI 4	656000	3840	25.37	26.00	1.156	1.000	0.05	1.050	1.214
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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)
WLAN&BT																
97	WLAN2.4GHz	802.11b 1Mbps	Right Side	0mm	Ant 6	Standalone/Simultaneous	1	2412	20.90	22.00	1.288	98.39	1.016	-0.13	1.370	1.793
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+7	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	46	5230	21.10	22.00	1.230	86.49	1.156	0.08	1.140	1.621
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+7		46	5230	21.10	22.00	1.230	86.49	1.156	-0.04	0.432	0.614
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+7		46	5230	21.10	22.00	1.230	86.49	1.156	-0.13	1.210	1.721
98	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		46	5230	21.10	22.00	1.230	86.49	1.156	-0.12	1.700	2.418
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		38	5190	18.28	19.50	1.324	86.49	1.156	0.14	1.020	1.562
	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 5+7	Full power	46	5230	21.10	22.00	1.230	86.49	1.156	0.05	0.515	0.732
	WLAN5GHz	802.11n-HT40 MCS0	Back	2mm	Ant 5+7	Full power	46	5230	21.10	22.00	1.230	86.49	1.156	0.12	0.556	0.791
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	7mm	Ant 5+7	Full power	46	5230	21.10	22.00	1.230	86.49	1.156	0.03	0.519	0.738
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	6mm	Ant 5+7	Full power	46	5230	21.10	22.00	1.230	86.49	1.156	-0.05	0.577	0.821
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+7	WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	46	5230	18.38	19.00	1.153	86.49	1.156	0.05	0.567	0.756
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+7		46	5230	18.38	19.00	1.153	86.49	1.156	0.13	0.219	0.292
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+7		46	5230	18.38	19.00	1.153	86.49	1.156	0.02	0.626	0.835
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		46	5230	18.38	19.00	1.153	86.49	1.156	-0.15	0.837	1.116
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+7		46	5230	18.38	19.00	1.153	86.49	1.156	-0.15	0.837	1.116
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+7	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	54	5270	21.22	22.00	1.197	86.49	1.156	0.11	0.925	1.280
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+7		54	5270	21.22	22.00	1.197	86.49	1.156	0.04	0.196	0.271
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+7		54	5270	21.22	22.00	1.197	86.49	1.156	-0.03	1.640	2.269
99	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		54	5270	21.22	22.00	1.197	86.49	1.156	-0.14	1.950	2.698
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+7		62	5310	21.12	22.00	1.225	86.49	1.156	0.08	1.490	2.109
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		62	5310	21.12	22.00	1.225	86.49	1.156	0.11	1.840	2.605
	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 5+7	Full power	54	5270	21.22	22.00	1.197	86.49	1.156	0.05	0.624	0.863
	WLAN5GHz	802.11n-HT40 MCS0	Back	2mm	Ant 5+7	Full power	54	5270	21.22	22.00	1.197	86.49	1.156	0.07	0.358	0.495
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	7mm	Ant 5+7	Full power	54	5270	21.22	22.00	1.197	86.49	1.156	-0.13	0.505	0.699
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	6mm	Ant 5+7	Full power	54	5270	21.22	22.00	1.197	86.49	1.156	0.03	0.852	1.179
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 5+7	WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	58	5290	17.79	19.00	1.321	92.86	1.077	-0.06	0.529	0.753
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+7		58	5290	17.79	19.00	1.321	92.86	1.077	-0.02	0.104	0.148
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+7		58	5290	17.79	19.00	1.321	92.86	1.077	-0.07	0.768	1.093
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+7		58	5290	17.79	19.00	1.321	92.86	1.077	0.17	0.893	1.271
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+7		58	5290	17.79	19.00	1.321	92.86	1.077	0.17	0.893	1.271
	WLAN5GHz	802.11n-HT40 MCS0	Front	0mm	Ant 5+7	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	110	5550	21.11	22.00	1.227	86.49	1.156	-0.03	0.845	1.199
	WLAN5GHz	802.11n-HT40 MCS0	Back	0mm	Ant 5+7		110	5550	21.11	22.00	1.227	86.49	1.156	-0.1	0.364	0.516
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	0mm	Ant 5+7		110	5550	21.11	22.00	1.227	86.49	1.156	-0.08	1.060	1.504
100	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		110	5550	21.11	22.00	1.227	86.49	1.156	-0.02	1.980	2.809
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		102	5510	21.05	22.00	1.245	86.49	1.156	0.07	1.810	2.604
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		126	5630	20.67	22.00	1.358	86.49	1.156	-0.07	1.750	2.748
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		134	5670	20.46	22.00	1.426	86.49	1.156	0.06	1.690	2.785
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	0mm	Ant 5+7		142	5710	20.64	22.00	1.368	86.49	1.156	0.07	1.730	2.735
	WLAN5GHz	802.11n-HT40 MCS0	Front	5mm	Ant 5+7	Full power	110	5550	21.11	22.00	1.227	86.49	1.156	0.09	0.285	0.404
	WLAN5GHz	802.11n-HT40 MCS0	Back	2mm	Ant 5+7	Full power	110	5550	21.11	22.00	1.227	86.49	1.156	-0.05	0.419	0.595
	WLAN5GHz	802.11n-HT40 MCS0	Right Side	7mm	Ant 5+7	Full power	110	5550	21.11	22.00	1.227	86.49	1.156	0.14	0.305	0.433
	WLAN5GHz	802.11n-HT40 MCS0	Top Side	6mm	Ant 5+7	Full power	110	5550	21.11	22.00	1.227	86.49	1.156	0.08	0.585	0.830
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 5+7	WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	122	5610	16.77	18.00	1.327	92.86	1.077	0.07	0.306	0.437
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+7		122	5610	16.77	18.00	1.327	92.86	1.077	-0.03	0.125	0.179
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+7		122	5610	16.77	18.00	1.327	92.86	1.077	0.06	0.397	0.568
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+7		122	5610	16.77	18.00	1.327	92.86	1.077	0.07	0.809	1.157
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+7		122	5610	16.77	18.00	1.327	92.86	1.077	0.07	0.809	1.157
	WLAN5GHz	802.11a 6Mbps	Front	0mm	Ant 5+7	Standalone DBS WIFI 2.4G SISO1+WIFI 5G/6G SISO2	149	5745	21.22	22.50	1.343	93.29	1.072	0.16	0.899	1.294
	WLAN5GHz	802.11a 6Mbps	Back	0mm	Ant 5+7		149	5745	21.22	22.50	1.343	93.29	1.072	-0.1	0.323	0.465
	WLAN5GHz	802.11a 6Mbps	Right Side	0mm	Ant 5+7		149	5745	21.22	22.50	1.343	93.29	1.072	-0.06	1.090	1.569
101	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 5+7		149	5745	21.22	22.50	1.343	93.29	1.072	0.06	1.960	2.821
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 5+7		157	5785	21.13	22.50	1.371	93.29	1.072	-0.05	1.850	2.719
	WLAN5GHz	802.11a 6Mbps	Top Side	0mm	Ant 5+7		165	5825	20.87	22.50	1.455	93.29	1.072	0.12	1.680	2.621

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Issued Date : Mar. 06, 2026

Form version. : 200414



	WLAN5GHz	802.11a 6Mbps	Front	5mm	Ant 5+7	Full power	149	5745	21.82	23.00	1.312	93.29	1.072	0.06	0.383	0.539
	WLAN5GHz	802.11a 6Mbps	Back	2mm	Ant 5+7	Full power	149	5745	21.82	23.00	1.312	93.29	1.072	0.02	0.359	0.505
	WLAN5GHz	802.11a 6Mbps	Right Side	7mm	Ant 5+7	Full power	149	5745	21.82	23.00	1.312	93.29	1.072	-0.05	0.330	0.464
	WLAN5GHz	802.11a 6Mbps	Top Side	6mm	Ant 5+7	Full power	149	5745	21.82	23.00	1.312	93.29	1.072	0.07	0.801	1.127
	WLAN5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 5+7	WWAN+WLAN5/6G+BT WWAN + WIFI 2.4G SISO1+WIFI 5/6G SISO2	155	5775	17.09	18.50	1.384	92.86	1.077	-0.07	0.319	0.475
	WLAN5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 5+7		155	5775	17.09	18.50	1.384	92.86	1.077	0.17	0.115	0.171
	WLAN5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 5+7		155	5775	17.09	18.50	1.384	92.86	1.077	0.16	0.376	0.560
	WLAN5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 5+7		155	5775	17.09	18.50	1.384	92.86	1.077	0.01	0.763	1.137

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)	Reported APD (W/m^2)
	WLAN6GHz	802.11ax-HE160 MCS0	Front	0mm	Ant 5+7	Standalone Simultaneous DBS WIFI 2.4G SISO1+WIFI 6G SISO2 WLAN6G+BT WWAN+WLAN6G+BT WWAN + WIFI 2.4G SISO1+WIFI 6G SISO2	79	6345	13.76	15.50	1.493	85	1.176	-0.09	0.133	0.233	3.33
	WLAN6GHz	802.11ax-HE160 MCS0	Back	0mm	Ant 5+7		79	6345	13.76	15.50	1.493	85	1.176	0.14	0.067	0.118	1.22
	WLAN6GHz	802.11ax-HE160 MCS0	Right Side	0mm	Ant 5+7		79	6345	13.76	15.50	1.493	85	1.176	0.09	0.083	0.146	2.08
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+7		79	6345	13.76	15.50	1.493	85	1.176	-0.07	0.208	0.365	4.81
102	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+7		47	6185	13.69	15.50	1.517	85	1.176	0.01	0.235	0.419	5.37
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	0mm	Ant 5+7		111	6505	15.83	17.50	1.469	85	1.176	0.05	0.215	0.371	5.28
	WLAN6GHz	802.11ax-HE80 MCS0	Top Side	0mm	Ant 5+7		135	6625	18.43	20.00	1.437	90.65	1.103	0.11	0.251	0.398	5.87
	WLAN6GHz	802.11ax-HE80 MCS0	Top Side	0mm	Ant 5+7		215	7025	17.62	19.00	1.374	90.65	1.103	0.17	0.210	0.318	4.92
	WLAN6GHz	802.11ax-HE80 MCS0	Front	5mm	Ant 5+7	Full power	87	6385	18.36	20.00	1.460	90.65	1.103	0.08	0.058	0.093	1.08
	WLAN6GHz	802.11ax-HE80 MCS0	Back	2mm	Ant 5+7	Full power	87	6385	18.36	20.00	1.460	90.65	1.103	0.06	0.057	0.092	1.16
	WLAN6GHz	802.11ax-HE80 MCS0	Right Side	7mm	Ant 5+7	Full power	87	6385	18.36	20.00	1.460	90.65	1.103	-0.14	0.025	0.040	0.583
	WLAN6GHz	802.11ax-HE80 MCS0	Top Side	6mm	Ant 5+7	Full power	87	6385	18.36	20.00	1.460	90.65	1.103	0.02	0.110	0.177	2.76



16.5 6GHz PD Test Result

WLAN PD

Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Power State	Average Power (dBm)	Grid Step (λ)	iPDn	iPD ratio (≥ -1)	Normal psPD (W/m ²)	Total psPD (W/m ²)
WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 5+7	47	6185	Extremity Standalone	13.69	0.0625	3.55	0.330324551	1.6	2.22
WLAN6GHz	802.11ax-HE160 MCS0	Top Side	10mm	Ant 5+7	47	6185	Extremity Standalone	13.69	0.25	3.29		0.569	0.627
WLAN6GHz	802.11ax-HE80 MCS0	Top Side	2mm	Ant 5+7	215	7025	Extremity Standalone	17.62	0.0625	2.93	-0.38282358	2.7	3.05
WLAN6GHz	802.11ax-HE80 MCS0	Top Side	8.59mm	Ant 5+7	215	7025	Extremity Standalone	17.62	0.25	3.2		1.2	1.28

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Ch.	Freq. (MHz)	Power State	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Grid Step (λ)	Scaling Factor for Measurement Uncertainty	Power Drift (dB)	Normal psPD (W/m ²)	Scaled Normal psPD (W/m ²)	Total psPD (W/m ²)	Scaled Total psPD (W/m ²)
01	WLAN6GHz	802.11ax-HE80 MCS0	Front	2mm	Ant 5+7	7	5985	Head Standalone	18.28	20.00	1.487	90.65	1.103	0.0625	1.5535	-0.12	2.39	6.09	2.83	7.21
	WLAN6GHz	802.11ax-HE80 MCS0	Front	2mm	Ant 5+7	87	6385	Head Standalone	18.36	20.00	1.460	90.65	1.103	0.0625	1.5535	0.01	2.22	5.55	2.16	5.40
	WLAN6GHz	802.11ax-HE80 MCS0	Front	2mm	Ant 5+7	103	6465	Head Standalone	18.56	19.50	1.242	90.65	1.103	0.0625	1.5535	0.06	1.85	3.94	1.78	3.79
	WLAN6GHz	802.11ax-HE80 MCS0	Front	2mm	Ant 5+7	135	6625	Head Standalone	18.43	20.00	1.437	90.65	1.103	0.0625	1.5535	0.01	2.18	5.37	1.99	4.90
	WLAN6GHz	802.11ax-HE80 MCS0	Front	2mm	Ant 5+7	215	7025	Head Standalone	19.50	21.00	1.412	90.65	1.103	0.0625	1.5535	-0.19	1.15	2.78	1.64	3.97
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 5+7	47	6185	Extremity Standalone	13.69	15.50	1.517	85	1.176	0.0625	1.5535	-0.02	1.6	4.43	2.22	6.15
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 5+7	79	6345	Extremity Standalone	13.76	15.50	1.493	85	1.176	0.0625	1.5535	0.03	2.03	5.54	2.12	5.78
	WLAN6GHz	802.11ax-HE160 MCS0	Top Side	2mm	Ant 5+7	111	6505	Extremity Standalone	15.83	17.50	1.469	85	1.176	0.0625	1.5535	-0.01	1.85	4.96	2.02	5.42
	WLAN6GHz	802.11ax-HE80 MCS0	Top Side	2mm	Ant 5+7	135	6625	Extremity Standalone	18.43	20.00	1.437	90.65	1.103	0.0625	1.5535	-0.02	1.7	4.18	2.07	5.10
02	WLAN6GHz	802.11ax-HE80 MCS0	Top Side	2mm	Ant 5+7	215	7025	Extremity Standalone	17.62	19.00	1.374	90.65	1.103	0.0625	1.5535	-0.04	2.7	6.36	3.05	7.18

16.6 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 3	Standalone	6	2437	18.03	19.50	1.403	98.39	1.016	0.13	0.828	1	1.180
2nd	WLAN2.4GHz	-	-	-	-	802.11b 1Mbps	Left Cheek	0mm	Ant 3	Standalone	6	2437	18.03	19.50	1.403	98.39	1.016	0.07	0.814	1.017	1.160
1st	WLAN5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7	Standalone Simultaneous WLAN5G+BT	58	5290	16.73	18.00	1.340	92.86	1.077	0.14	0.824	1	1.189
2nd	WLAN5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7	Standalone Simultaneous WLAN5G+BT	58	5290	16.73	18.00	1.340	92.86	1.077	0.07	0.809	1.019	1.167
1st	WLAN5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7	Standalone Simultaneous WLAN5G+BT	122	5610	16.74	18.00	1.337	92.86	1.077	0.17	0.804	1	1.157
2nd	WLAN5GHz	-	-	-	-	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 5+7	Standalone Simultaneous WLAN5G+BT	122	5610	16.74	18.00	1.337	92.86	1.077	0.03	0.794	1.013	1.143
1st	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	ECI 3	349000	1745	19.52	20.50	1.253	-	-	0.02	1.020	1	1.278
2nd	FR1 n66	45M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	ECI 3	349000	1745	19.52	20.50	1.253	-	-	0.08	0.994	1.026	1.246
1st	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	ECI 3	507000	2535	18.27	19.00	1.183	-	-	0.06	1.080	1	1.278
2nd	FR1 n7	50M	QPSK	1	1	DFT-15	Back	5mm	Ant 2	ECI 3	507000	2535	18.27	19.00	1.183	-	-	-0.04	1.020	1.059	1.207
1st	GSM850	-	-	-	-	GPRS 4TX Slot	Back	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462	-	-	0.15	0.852	1	1.246
2nd	GSM850	-	-	-	-	GPRS 4TX Slot	Back	5mm	Ant 0	ECI 7	189	836.4	28.85	30.50	1.462	-	-	0.07	0.833	1.023	1.218
1st	GSM1900	-	-	-	-	GPRS 4TX Slot	Bottom Side	5mm	Ant 2	ECI 7	512	1850.2	20.66	21.80	1.300	-	-	-0.02	0.983	1	1.278
2nd	GSM1900	-	-	-	-	GPRS 4TX Slot	Bottom Side	5mm	Ant 2	ECI 7	512	1850.2	20.66	21.80	1.300	-	-	0.04	0.973	1.010	1.265

<10g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 10g SAR (W/kg)	Ratio	Reported 10g SAR (W/kg)
1st	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 2	ECI 6	132322	1745	23.22	24.00	1.197	-	-	0.06	2.440	1	2.920
2nd	LTE Band 66	20M	QPSK	1	0	-	Back	0mm	Ant 2	ECI 6	132322	1745	23.22	24.00	1.197	-	-	0.07	2.320	1.052	2.776
1st	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 2	ECI 6	26140	1860	22.25	23.00	1.189	-	-	-0.09	2.590	1	3.078
2nd	LTE Band 25	20M	QPSK	1	0	-	Back	0mm	Ant 2	ECI 6	26140	1860	22.25	23.00	1.189	-	-	0.08	2.510	1.032	2.983
1st	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 2	ECI 6	21350	2560	20.77	21.50	1.183	-	-	-0.02	2.670	1	3.159
2nd	LTE Band 7	20M	QPSK	1	0	-	Back	0mm	Ant 2	ECI 6	21350	2560	20.77	21.50	1.183	-	-	0.07	2.630	1.015	3.111
1st	FR1 n77	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 6	656000	3840	17.90	18.50	1.148	-	-	-0.09	2.020	1	2.319
2nd	FR1 n77	100M	QPSK	1	1	DFT-30	Back	0mm	Ant 11	ECI 6	656000	3840	17.90	18.50	1.148	-	-	0.03	1.940	1.041	2.227

General Note:

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

16.7 TDD LTE Linearity Data Analysis

General Note:

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

Head		
LTE Band 41_Ant 2(HPUE)-Linearity Data for ECI 2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	27.00
Reported 1g SAR (W/kg)	0.174	0.219
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	217.01
Linearity SAR (W/kg)	0.237	
% deviation from expected linearity		-7.78%
LTE Band 41_Ant 8(HPUE)-Linearity Data for ECI 2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	21.60
Reported 1g SAR (W/kg)	0.853	0.883
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	63.30	62.59
Linearity SAR (W/kg)	0.843	
% deviation from expected linearity		4.70%
LTE Band 41_Ant 9(HPUE)-Linearity Data for ECI 2		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.50	24.10
Reported 1g SAR (W/kg)	0.857	0.807
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	112.57	111.30
Linearity SAR (W/kg)	0.847	
% deviation from expected linearity		-4.76%

Hotspot		
LTE Band 41_Ant 2(HPUE)-Linearity Data for ECI 7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	22.60
Reported 1g SAR (W/kg)	1.094	1.063
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	79.69	78.79
Linearity SAR (W/kg)	1.082	
% deviation from expected linearity		-1.73%
LTE Band 41_Ant 8(HPUE)-Linearity Data for ECI 7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.00	21.60
Reported 1g SAR (W/kg)	0.552	0.549
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	63.30	62.59
Linearity SAR (W/kg)	0.546	
% deviation from expected linearity		0.59%

LTE Band 41_Ant 9(HPUE)-Linearity Data for ECI 7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.00	20.60
Reported 1g SAR (W/kg)	0.625	0.597
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	50.28	49.72
Linearity SAR (W/kg)	0.618	
% deviation from expected linearity		-3.39%

Body-worn		
LTE Band 41_Ant 2(HPUE)-Linearity Data for ECI 3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	22.60
Reported 1g SAR (W/kg)	1.187	1.177
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	79.69	78.79
Linearity SAR (W/kg)	1.174	
% deviation from expected linearity		0.29%

LTE Band 41_Ant 8(HPUE)-Linearity Data for ECI 3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.00	22.60
Reported 1g SAR (W/kg)	0.761	0.773
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	79.69	78.79
Linearity SAR (W/kg)	0.752	
% deviation from expected linearity		2.73%

LTE Band 41_Ant 9(HPUE)-Linearity Data for ECI 3		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.00	24.60
Reported 1g SAR (W/kg)	0.850	0.842
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	126.30	124.88
Linearity SAR (W/kg)	0.840	
% deviation from expected linearity		0.19%

Extemity		
LTE Band 41_Ant 2(HPUE)-Linearity Data for ECI 6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	23.00	24.60
Reported 10g SAR (W/kg)	2.996	2.840
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	126.30	124.88
Linearity SAR (W/kg)	2.962	
% deviation from expected linearity		-4.13%
LTE Band 41_Ant 8(HPUE)-Linearity Data for ECI 6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	25.60
Reported 10g SAR (W/kg)	2.003	2.005
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	157.21
Linearity SAR (W/kg)	1.980	
% deviation from expected linearity		1.24%
LTE Band 41_Ant 9(HPUE)-Linearity Data for ECI 6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	24.00	25.60
Reported 10g SAR (W/kg)	2.466	2.215
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	159.00	157.21
Linearity SAR (W/kg)	2.438	
% deviation from expected linearity		-9.16%

17. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + WLAN2.4GHz	Yes	Yes	Yes	Yes
2.	WWAN + WLAN5GHz	Yes	Yes	Yes	Yes
3.	WWAN + WLAN6GHz	Yes	Yes		Yes
4.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
5.	WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
6.	WLAN6GHz + Bluetooth	Yes	Yes		Yes
7.	WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
8.	WLAN2.4GHz + WLAN6GHz	Yes	Yes		Yes
9.	WWAN + WLAN5GHz + Bluetooth	Yes	Yes	Yes	Yes
10.	WWAN + WLAN6GHz + Bluetooth	Yes	Yes		Yes
11.	WWAN + WLAN2.4GHz + WLAN5GHz	Yes	Yes	Yes	Yes
12.	WWAN + WLAN2.4GHz + WLAN6GHz	Yes	Yes		Yes
13.	WWAN + WLAN2.4GHz + NFC				Yes
14.	WWAN + WLAN5GHz + NFC				Yes
15.	WWAN + WLAN6GHz + NFC				Yes
16.	WWAN + Bluetooth + NFC				Yes
17.	WLAN5GHz + Bluetooth + NFC				Yes
18.	WLAN6GHz + Bluetooth + NFC				Yes
19.	WLAN2.4GHz + WLAN5GHz + NFC				Yes
20.	WLAN2.4GHz + WLAN6GHz + NFC				Yes
21.	WWAN + WLAN5GHz + Bluetooth + NFC				Yes
22.	WWAN + WLAN6GHz + Bluetooth + NFC				Yes
23.	WWAN + WLAN2.4GHz + WLAN5GHz + NFC				Yes
24.	WWAN + WLAN2.4GHz + WLAN6GHz + NFC				Yes

General Note:

- This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
- WWAN above includes 5G NR bands and EN-DC combination.
- EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
- For EN-DC mode, MediaTek TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure from 4G(LTE) and time-averaged RF exposure from 5G NR. MediaTek TA-SAR controls the total RF exposure from both 4G and 5G NR to not exceed SAR exposure limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in this Report (Appendix F) during algorithm validation. In this Report, simultaneous transmission compliance was evaluated individually with other Radios (WLAN or BT) using one of 4G or 5G NR.
- This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
- This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WLAN Direct (GC/GO), and 5.3GHz / 5.5GHz supports WLAN Direct (GC only). WLAN 6GHz has no hotspot function.
- According to the EUT characteristic, WLAN 2.4GHz and Bluetooth cannot transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz/6GHz and Bluetooth can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz can transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz and WLAN 6GHz can't transmit simultaneously.
- According to the EUT characteristic, WLAN 5GHz/6GHz and WLAN 2.4GHz(Ant3) can transmit simultaneously.
- The NFC only operate on limbs exposure condition.
- The worst case 5 GHz WLAN SAR for each configuration was used for SAR summation.
- When stand-alone SAR is not required for a transmitter or antenna, its SAR is considered zero in the SAR summing process to assess Multi-band transmission SAR compliance.
- NFC can transmit simultaneously with other Radios in extremity exposure condition.
- For distance SAR and non-distance SAR at extremity exposure conditions always chose higher SAR to do co-located analysis.

17. For co-located SAR with WWAN/Bluetooth, always chose higher SAR among WLAN5GHz and WLAN 6GHz, it is the worst co-located analysis and can represent each WLAN5GHz bands and each WLAN6GHz bands.
18. For standalone WWAN, always choose the highest SAR among all WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT together. This is the worst co-located analysis and can represent each band.
19. The maximum SAR summation is calculated based on the same configuration and test position.
20. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
 - i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
 - ii) $SPLSR = (SAR1 + SAR2)^{1.5} / (\text{min. separation distance, mm})$, and the peak separation distance is determined from the square root of $[(x1-x2)^2 + (y1-y2)^2 + (z1-z2)^2]$, where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
 - iii) If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
 - iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.
21. Since the WPT will only operate on body condition, therefore, WPT transmit with WWAN/WLAN/BT only consider at hotspot / body-worn/extremity conditions, the further Sim-Tx analysis include in section 17.6.

17.1 5G NR + LTE + WLAN + BT Sim-Tx analysis

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

17.2 Head Exposure Conditions

Exposure Position	3	4	3+4
	WLAN2.4GHz Ant 3	WLAN5/6GHz Ant 5+7	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Right Cheek	0.289	0.520	0.81
Right Tilted	0.343	0.664	1.01
Left Cheek	0.775	0.732	1.51
Left Tilted	0.642	0.847	1.49

Exposure Position	3	4	3+4
	WLAN5/6GHz Ant 5+7	Bluetooth Ant 3	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Right Cheek	0.740	0.136	0.88
Right Tilted	0.852	0.155	1.01
Left Cheek	1.053	0.375	1.43
Left Tilted	1.189	0.302	1.49

WWAN Band	Exposure Position	1	3	4	6	8	1+3+4	1+6+8	1+3+6
		WWAN	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 6	WLAN5/6GHz Ant 5+7	Bluetooth Ant 3	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band Ant 0	Right Cheek	0.393	0.135	0.134	0.269	0.083	0.66	0.75	0.80
	Right Tilted	0.232	0.171	0.048	0.344	0.092	0.45	0.67	0.75
	Left Cheek	0.442	0.343	0.365	0.370	0.230	1.15	1.04	1.16
	Left Tilted	0.196	0.299	0.085	0.393	0.179	0.58	0.77	0.89
All Band Ant 1	Right Cheek	0.619	0.135	0.134	0.269	0.083	0.89	0.97	1.02
	Right Tilted	0.158	0.171	0.048	0.344	0.092	0.38	0.59	0.67
	Left Cheek	0.833	0.343	0.365	0.370	0.230	1.54	1.43	1.55
	Left Tilted	0.149	0.299	0.085	0.393	0.179	0.53	0.72	0.84
All Band Ant 2	Right Cheek	0.541	0.135	0.134	0.269	0.083	0.81	0.89	0.95
	Right Tilted	0.208	0.171	0.048	0.344	0.092	0.43	0.64	0.72
	Left Cheek	0.554	0.343	0.365	0.370	0.230	1.26	1.15	1.27
	Left Tilted	0.255	0.299	0.085	0.393	0.179	0.64	0.83	0.95
All Band Ant 4	Right Cheek	0.823	0.135	0.134	0.269	0.083	1.09	1.18	1.23
	Right Tilted	0.755	0.171	0.048	0.344	0.092	0.97	1.19	1.27
	Left Cheek	0.199	0.343	0.365	0.370	0.230	0.91	0.80	0.91
	Left Tilted	0.220	0.299	0.085	0.393	0.179	0.60	0.79	0.91
All Band Ant 5	Right Cheek	0.272	0.135	0.134	0.269	0.083	0.54	0.62	0.68
	Right Tilted	0.305	0.171	0.048	0.344	0.092	0.52	0.74	0.82
	Left Cheek	0.733	0.343	0.365	0.370	0.230	1.44	1.33	1.45
	Left Tilted	0.816	0.299	0.085	0.393	0.179	1.20	1.39	1.51
All Band Ant 6	Right Cheek	0.300	0.135	0.134	0.269	0.083	0.57	0.65	0.70
	Right Tilted	0.079	0.171	0.048	0.344	0.092	0.30	0.52	0.59
	Left Cheek	0.880	0.343	0.365	0.370	0.230	1.59	1.48	1.59
	Left Tilted	0.163	0.299	0.085	0.393	0.179	0.55	0.74	0.86
All Band Ant 7	Right Cheek	0.455	0.135	0.134	0.269	0.083	0.72	0.81	0.86
	Right Tilted	0.501	0.171	0.048	0.344	0.092	0.72	0.94	1.02
	Left Cheek	0.837	0.343	0.365	0.370	0.230	1.55	1.44	1.55
	Left Tilted	0.696	0.299	0.085	0.393	0.179	1.08	1.27	1.39
All Band Ant 8	Right Cheek	0.883	0.135	0.134	0.269	0.083	1.15	1.24	1.29
	Right Tilted	0.883	0.171	0.048	0.344	0.092	1.10	1.32	1.40
	Left Cheek	0.664	0.343	0.365	0.370	0.230	1.37	1.26	1.38
	Left Tilted	0.720	0.299	0.085	0.393	0.179	1.10	1.29	1.41
All Band Ant 9	Right Cheek	0.881	0.135	0.134	0.269	0.083	1.15	1.23	1.29



All Band Ant 11	Right Tilted	0.457	0.171	0.048	0.344	0.092	0.68	0.89	0.97
	Left Cheek	0.231	0.343	0.365	0.370	0.230	0.94	0.83	0.94
	Left Tilted	0.805	0.299	0.085	0.393	0.179	1.19	1.38	1.50
	Right Cheek	0.267	0.135	0.134	0.269	0.083	0.54	0.62	0.67
	Right Tilted	0.117	0.171	0.048	0.344	0.092	0.34	0.55	0.63
	Left Cheek	0.101	0.343	0.365	0.370	0.230	0.81	0.70	0.81
	Left Tilted	0.070	0.299	0.085	0.393	0.179	0.45	0.64	0.76

17.3 Hotspot Exposure Conditions

Exposure Position	3	4	3+4
	WLAN2.4GHz Ant 3	WLAN5GHz Ant 5+7	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Front	0.283	0.291	0.57
Back	0.254	0.299	0.55
Left side			0.00
Right side	0.159	0.486	0.65
Top side	0.509	0.530	1.04
Bottom side			0.00

Exposure Position	3	4	3+4
	WLAN5GHz Ant 5+7	Bluetooth Ant 3	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Front	0.291	0.162	0.45
Back	0.299	0.119	0.42
Left side			0.00
Right side	0.486	0.083	0.57
Top side	0.530	0.251	0.78
Bottom side			0.00

<Top Ant>

WWAN Band	Exposure Position	1	3	4	5	6	1+3+4	1+5+6	1+3+5
		WWAN	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 6	WLAN5GHz Ant 5+7	Bluetooth Ant 3	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band Ant 1	Front	0.225	0.283	0.168	0.291	0.162	0.68	0.68	0.80
	Back	0.268	0.254	0.265	0.299	0.119	0.79	0.69	0.82
	Left side	0.606					0.61	0.61	0.61
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04
	Bottom side						0.00	0.00	0.00
All Band Ant 4	Front	0.392	0.283	0.168	0.291	0.162	0.84	0.85	0.97
	Back	0.438	0.254	0.265	0.299	0.119	0.96	0.86	0.99
	Left side	0.512					0.51	0.51	0.51
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65
	Top side	0.538	0.509	0.045	0.530	0.251	1.09	1.32	1.58
	Bottom side						0.00	0.00	0.00
All Band Ant 5	Front	0.266	0.283	0.168	0.291	0.162	0.72	0.72	0.84
	Back	0.545	0.254	0.265	0.299	0.119	1.06	0.96	1.10
	Left side						0.00	0.00	0.00
	Right side	0.373	0.159	0.565	0.486	0.083	1.10	0.94	1.02
	Top side	0.532	0.509	0.045	0.530	0.251	1.09	1.31	1.57



	Bottom side						0.00	0.00	0.00
All Band Ant 6	Front	0.117	0.283	0.168	0.291	0.162	0.57	0.57	0.69
	Back	0.299	0.254	0.265	0.299	0.119	0.82	0.72	0.85
	Left side						0.00	0.00	0.00
	Right side	0.618	0.159	0.565	0.486	0.083	1.34	1.19	1.26
	Top side	0.037	0.509	0.045	0.530	0.251	0.59	0.82	1.08
	Bottom side						0.00	0.00	0.00
All Band Ant 7	Front	0.254	0.283	0.168	0.291	0.162	0.71	0.71	0.83
	Back	0.536	0.254	0.265	0.299	0.119	1.06	0.95	1.09
	Left side						0.00	0.00	0.00
	Right side	0.255	0.159	0.565	0.486	0.083	0.98	0.82	0.90
	Top side	0.513	0.509	0.045	0.530	0.251	1.07	1.29	1.55
	Bottom side						0.00	0.00	0.00
All Band Ant 8	Front	0.294	0.283	0.168	0.291	0.162	0.75	0.75	0.87
	Back	0.534	0.254	0.265	0.299	0.119	1.05	0.95	1.09
	Left side	0.167					0.17	0.17	0.17
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65
	Top side	0.552	0.509	0.045	0.530	0.251	1.11	1.33	1.59
	Bottom side						0.00	0.00	0.00
All Band Ant 9	Front	0.232	0.283	0.168	0.291	0.162	0.68	0.69	0.81
	Back	0.556	0.254	0.265	0.299	0.119	1.08	0.97	1.11
	Left side	0.625					0.63	0.63	0.63
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65
	Top side	0.097	0.509	0.045	0.530	0.251	0.65	0.88	1.14
	Bottom side						0.00	0.00	0.00
All Band Ant 11	Front	0.013	0.283	0.168	0.291	0.162	0.46	0.47	0.59
	Back	0.590	0.254	0.265	0.299	0.119	1.11	1.01	1.14
	Left side	0.108					0.11	0.11	0.11
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65
	Top side	0.013	0.509	0.045	0.530	0.251	0.57	0.79	1.05
	Bottom side						0.00	0.00	0.00

<Bottom Ant>

WWAN Band	Exposure Position	1	3	4	5	6	1+3+4	1+5+6	1+3+5	Case No
		WWAN 1g SAR (W/kg)	WLAN2.4GHz Ant 3 1g SAR (W/kg)	WLAN2.4GHz Ant 6 1g SAR (W/kg)	WLAN5GHz Ant 5+7 1g SAR (W/kg)	Bluetooth Ant 3 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	Summed 1g SAR (W/kg)	
LTE Band 71 Ant 0	Front	0.429	0.283	0.168	0.291	0.162	0.88	0.88	1.00	
	Back	0.461	0.254	0.265	0.299	0.119	0.98	0.88	1.01	
	Left side	0.143					0.14	0.14	0.14	
	Right side	0.440	0.159	0.565	0.486	0.083	1.16	1.01	1.09	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	0.387					0.39	0.39	0.39	
LTE Band 12 Ant 0	Front	0.300	0.283	0.168	0.291	0.162	0.75	0.75	0.87	
	Back	0.485	0.254	0.265	0.299	0.119	1.00	0.90	1.04	
	Left side	0.120					0.12	0.12	0.12	
	Right side	0.469	0.159	0.565	0.486	0.083	1.19	1.04	1.11	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	0.238					0.24	0.24	0.24	
LTE Band 13 Ant 0	Front	0.396	0.283	0.168	0.291	0.162	0.85	0.85	0.97	
	Back	0.483	0.254	0.265	0.299	0.119	1.00	0.90	1.04	
	Left side	0.131					0.13	0.13	0.13	
	Right side	0.314	0.159	0.565	0.486	0.083	1.04	0.88	0.96	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	



	Bottom side	0.319					0.32	0.32	0.32	
FR1 n71 Ant 0	Front	0.324	0.283	0.168	0.291	0.162	0.78	0.78	0.90	
	Back	0.419	0.254	0.265	0.299	0.119	0.94	0.84	0.97	
	Left side	0.140					0.14	0.14	0.14	
	Right side	0.354	0.159	0.565	0.486	0.083	1.08	0.92	1.00	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	0.262					0.26	0.26	0.26	
GSM850 Ant 0	Front	0.842	0.283	0.168	0.291	0.162	1.29	1.30	1.42	
	Back	1.246	0.254	0.265	0.299	0.119	1.77	1.66	1.80	Case No 1/2/3
	Left side	0.161					0.16	0.16	0.16	
	Right side	0.749	0.159	0.565	0.486	0.083	1.47	1.32	1.39	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	0.747					0.75	0.75	0.75	
WCDMA V Ant 0	Front	0.476	0.283	0.168	0.291	0.162	0.93	0.93	1.05	
	Back	0.713	0.254	0.265	0.299	0.119	1.23	1.13	1.27	
	Left side	0.077					0.08	0.08	0.08	
	Right side	0.338	0.159	0.565	0.486	0.083	1.06	0.91	0.98	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	0.427					0.43	0.43	0.43	
LTE Band 26 Ant 0	Front	0.478	0.283	0.168	0.291	0.162	0.93	0.93	1.05	
	Back	0.627	0.254	0.265	0.299	0.119	1.15	1.05	1.18	
	Left side	0.162					0.16	0.16	0.16	
	Right side	0.436	0.159	0.565	0.486	0.083	1.16	1.01	1.08	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	0.421					0.42	0.42	0.42	
FR1 n26 Ant 0	Front	0.351	0.283	0.168	0.291	0.162	0.80	0.80	0.93	
	Back	0.466	0.254	0.265	0.299	0.119	0.99	0.88	1.02	
	Left side	0.086					0.09	0.09	0.09	
	Right side	0.294	0.159	0.565	0.486	0.083	1.02	0.86	0.94	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	0.311					0.31	0.31	0.31	
WCDMA IV Ant 2	Front	0.385	0.283	0.168	0.291	0.162	0.84	0.84	0.96	
	Back	0.660	0.254	0.265	0.299	0.119	1.18	1.08	1.21	
	Left side	0.109					0.11	0.11	0.11	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.058					1.06	1.06	1.06	
LTE Band 66 Ant 2	Front	0.505	0.283	0.168	0.291	0.162	0.96	0.96	1.08	
	Back	0.689	0.254	0.265	0.299	0.119	1.21	1.11	1.24	
	Left side	0.142					0.14	0.14	0.14	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.171					1.17	1.17	1.17	
FR1 n66 Ant 2	Front	0.516	0.283	0.168	0.291	0.162	0.97	0.97	1.09	
	Back	0.858	0.254	0.265	0.299	0.119	1.38	1.28	1.41	
	Left side	0.142					0.14	0.14	0.14	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.084					1.08	1.08	1.08	
GSM1900 Ant 2	Front	0.754	0.283	0.168	0.291	0.162	1.21	1.21	1.33	
	Back	1.201	0.254	0.265	0.299	0.119	1.72	1.62	1.75	Case No 4/5/6
	Left side	0.222					0.22	0.22	0.22	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.278					1.28	1.28	1.28	



WCDMA II Ant 2	Front	0.652	0.283	0.168	0.291	0.162	1.10	1.11	1.23	
	Back	0.787	0.254	0.265	0.299	0.119	1.31	1.21	1.34	
	Left side	0.189					0.19	0.19	0.19	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.087					1.09	1.09	1.09	
LTE Band 25 Ant 2	Front	0.679	0.283	0.168	0.291	0.162	1.13	1.13	1.25	
	Back	0.932	0.254	0.265	0.299	0.119	1.45	1.35	1.49	
	Left side	0.220					0.22	0.22	0.22	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.091					1.09	1.09	1.09	
FR1 n2 Ant 2	Front	0.694	0.283	0.168	0.291	0.162	1.15	1.15	1.27	
	Back	1.026	0.254	0.265	0.299	0.119	1.55	1.44	1.58	
	Left side	0.229					0.23	0.23	0.23	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.145					1.15	1.15	1.15	
LTE Band 7 Ant 2	Front	0.550	0.283	0.168	0.291	0.162	1.00	1.00	1.12	
	Back	0.790	0.254	0.265	0.299	0.119	1.31	1.21	1.34	
	Left side	0.125					0.13	0.13	0.13	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.115					1.12	1.12	1.12	
LTE Band 41 Ant 2	Front	0.557	0.283	0.168	0.291	0.162	1.01	1.01	1.13	
	Back	0.918	0.254	0.265	0.299	0.119	1.44	1.34	1.47	
	Left side	0.106					0.11	0.11	0.11	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.094					1.09	1.09	1.09	
FR1 n7 Ant 2	Front	0.512	0.283	0.168	0.291	0.162	0.96	0.97	1.09	
	Back	0.957	0.254	0.265	0.299	0.119	1.48	1.38	1.51	
	Left side	0.119					0.12	0.12	0.12	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.015					1.02	1.02	1.02	
FR1 n41 Ant 2	Front	0.676	0.283	0.168	0.291	0.162	1.13	1.13	1.25	
	Back	0.992	0.254	0.265	0.299	0.119	1.51	1.41	1.55	
	Left side	0.181					0.18	0.18	0.18	
	Right side		0.159	0.565	0.486	0.083	0.72	0.57	0.65	
	Top side		0.509	0.045	0.530	0.251	0.55	0.78	1.04	
	Bottom side	1.172					1.17	1.17	1.17	

17.4 Body-Worn Accessory Exposure Conditions

Exposure Position	3	4	3+4
	WLAN2.4GHz Ant 3	WLAN5/6GHz Ant 5+7	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Front	0.607	0.937	1.54
Back	0.486	1.064	1.55

Exposure Position	3	4	3+4
	WLAN5/6GHz Ant 5+7	Bluetooth Ant 3	Summed
	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
Front	0.937	0.300	1.24
Back	1.064	0.203	1.27

<Top Ant>

WWAN Band	Exposure Position	1	3	4	5	7	1+3+4	1+5+7	1+3+5
		WWAN	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 6	WLAN5/6GHz Ant 5+7	Bluetooth Ant 3	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band Ant 1	Front	0.642	0.416	0.243	0.331	0.300	1.30	1.27	1.39
	Back	0.799	0.347	0.321	0.357	0.203	1.47	1.36	1.50
All Band Ant 4	Front	0.755	0.416	0.243	0.331	0.300	1.41	1.39	1.50
	Back	0.877	0.347	0.321	0.357	0.203	1.55	1.44	1.58
All Band Ant 5	Front	0.444	0.416	0.243	0.331	0.300	1.10	1.08	1.19
	Back	0.806	0.347	0.321	0.357	0.203	1.47	1.37	1.51
All Band Ant 6	Front	0.419	0.416	0.243	0.331	0.300	1.08	1.05	1.17
	Back	0.865	0.347	0.321	0.357	0.203	1.53	1.43	1.57
All Band Ant 7	Front	0.410	0.416	0.243	0.331	0.300	1.07	1.04	1.16
	Back	0.809	0.347	0.321	0.357	0.203	1.48	1.37	1.51
All Band Ant 8	Front	0.517	0.416	0.243	0.331	0.300	1.18	1.15	1.26
	Back	0.883	0.347	0.321	0.357	0.203	1.55	1.44	1.59
All Band Ant 9	Front	0.547	0.416	0.243	0.331	0.300	1.21	1.18	1.29
	Back	0.888	0.347	0.321	0.357	0.203	1.56	1.45	1.59
All Band Ant 11	Front	0.029	0.416	0.243	0.331	0.300	0.69	0.66	0.78
	Back	0.851	0.347	0.321	0.357	0.203	1.52	1.41	1.56



<Bottom Ant>

WWAN Band	Exposure Position	1	3	4	5	7	1+3+4	1+5+7	1+3+5	SPLSR
		WWAN	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 6	WLAN5/6GHz Ant 5+7	Bluetooth Ant 3	Summed	Summed	Summed	
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	
LTE Band 71 Ant 0	Front	0.456	0.416	0.243	0.331	0.300	1.12	1.09	1.20	
	Back	0.543	0.347	0.321	0.357	0.203	1.21	1.10	1.25	
LTE Band 12 Ant 0	Front	0.414	0.416	0.243	0.331	0.300	1.07	1.05	1.16	
	Back	0.509	0.347	0.321	0.357	0.203	1.18	1.07	1.21	
LTE Band 13 Ant 0	Front	0.498	0.416	0.243	0.331	0.300	1.16	1.13	1.25	
	Back	0.591	0.347	0.321	0.357	0.203	1.26	1.15	1.30	
FR1 n71 Ant 0	Front	0.397	0.416	0.243	0.331	0.300	1.06	1.03	1.14	
	Back	0.548	0.347	0.321	0.357	0.203	1.22	1.11	1.25	
GSM850 Ant 0	Front	0.842	0.416	0.243	0.331	0.300	1.50	1.47	1.59	
	Back	1.246	0.347	0.321	0.357	0.203	1.91	1.81	1.95	Case No 7/8/9
WCDMA V Ant 0	Front	0.534	0.416	0.243	0.331	0.300	1.19	1.17	1.28	
	Back	0.713	0.347	0.321	0.357	0.203	1.38	1.27	1.42	
LTE Band 26 Ant 0	Front	0.480	0.416	0.243	0.331	0.300	1.14	1.11	1.23	
	Back	0.576	0.347	0.321	0.357	0.203	1.24	1.14	1.28	
FR1 n26 Ant 0	Front	0.363	0.416	0.243	0.331	0.300	1.02	0.99	1.11	
	Back	0.466	0.347	0.321	0.357	0.203	1.13	1.03	1.17	
WCDMA IV Ant 2	Front	0.570	0.416	0.243	0.331	0.300	1.23	1.20	1.32	
	Back	1.126	0.347	0.321	0.357	0.203	1.79	1.69	1.83	Case No 10/11/12
LTE Band 66 Ant 2	Front	0.705	0.416	0.243	0.331	0.300	1.36	1.34	1.45	
	Back	1.169	0.347	0.321	0.357	0.203	1.84	1.73	1.87	Case No 13/14/15
FR1 n66 Ant 2	Front	0.728	0.416	0.243	0.331	0.300	1.39	1.36	1.48	
	Back	1.278	0.347	0.321	0.357	0.203	1.95	1.84	1.98	Case No 16/17/18
GSM1900 Ant 2	Front	0.754	0.416	0.243	0.331	0.300	1.41	1.39	1.50	
	Back	1.201	0.347	0.321	0.357	0.203	1.87	1.76	1.91	Case No 19/20/21
WCDMA II Ant 2	Front	0.842	0.416	0.243	0.331	0.300	1.50	1.47	1.59	
	Back	1.181	0.347	0.321	0.357	0.203	1.85	1.74	1.89	Case No 22/23/24
LTE Band 25 Ant 2	Front	0.787	0.416	0.243	0.331	0.300	1.45	1.42	1.53	
	Back	1.160	0.347	0.321	0.357	0.203	1.83	1.72	1.86	Case No 25/26/27
FR1 n2 Ant 2	Front	0.778	0.416	0.243	0.331	0.300	1.44	1.41	1.53	
	Back	1.190	0.347	0.321	0.357	0.203	1.86	1.75	1.89	Case No 28/29/30
LTE Band 7 Ant 2	Front	0.685	0.416	0.243	0.331	0.300	1.34	1.32	1.43	
	Back	1.113	0.347	0.321	0.357	0.203	1.78	1.67	1.82	Case No 31/32/33
LTE Band 41 Ant 2	Front	0.740	0.416	0.243	0.331	0.300	1.40	1.37	1.49	
	Back	1.187	0.347	0.321	0.357	0.203	1.86	1.75	1.89	Case No 34/35/36
FR1 n7 Ant 2	Front	0.593	0.416	0.243	0.331	0.300	1.25	1.22	1.34	
	Back	1.278	0.347	0.321	0.357	0.203	1.95	1.84	1.98	Case No 37/38/39
FR1 n41 Ant 2	Front	0.720	0.416	0.243	0.331	0.300	1.38	1.35	1.47	
	Back	1.272	0.347	0.321	0.357	0.203	1.94	1.83	1.98	Case No 40/41/42

Sensor off

WWAN Band	Exposure Position	1	3	4	5	1+3+4	1+5	1+3+5
		WWAN	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 6	WLAN5/6GHz Ant 5+7	Summed	Summed	Summed
		1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)	1g SAR (W/kg)
All Band	Front	1.125	0.091	0.048	0.376	1.26	1.50	1.59
	Back	1.066	0.053	0.031	0.396	1.15	1.46	1.52



17.5 Product specific 10g SAR Exposure Conditions

Remark:

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

Exposure Position	3	4	6	7	3+4+7	4+6+7
	WLAN2.4GHz Ant 3	WLAN5/6GHz Ant 5+7	Bluetooth Ant 3	NFC	Summed	Summed
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
Front		1.621			1.62	1.62
Back		0.614		0.008	0.62	0.62
Left side					0.00	0.00
Right side		2.269			2.27	2.27
Top side		2.821			2.82	2.82
Bottom side					0.00	0.00

WWAN Band	Exposure Position	1	3	4	5	7	8	1+3+4+8	1+5+7+8	1+3+5+8
		WWAN	WLAN2.4GHz Ant 3	WLAN2.4GHz Ant 6	WLAN5/6GHz Ant 5+7	Bluetooth Ant 3	NFC	Summed	Summed	Summed
		10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
All Band Ant 0	Front				0.756			0.00	0.76	0.76
	Back	2.339			0.292		0.008	2.35	2.64	2.64
	Left side							0.00	0.00	0.00
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side				1.271			0.00	1.27	1.27
	Bottom side							0.00	0.00	0.00
All Band Ant 1	Front				0.756			0.00	0.76	0.76
	Back				0.292		0.008	0.01	0.30	0.30
	Left side	2.119						2.12	2.12	2.12
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side				1.271			0.00	1.27	1.27
	Bottom side							0.00	0.00	0.00
All Band Ant 2	Front	2.715			0.756			2.72	3.47	3.47
	Back	3.159			0.292		0.008	3.17	3.46	3.46
	Left side	2.093						2.09	2.09	2.09
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side				1.271			0.00	1.27	1.27
	Bottom side	2.974						2.97	2.97	2.97
All Band Ant 4	Front	1.933			0.756			1.93	2.69	2.69
	Back	2.134			0.292		0.008	2.14	2.43	2.43
	Left side	2.277						2.28	2.28	2.28
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side	1.993			1.271			1.99	3.26	3.26
	Bottom side							0.00	0.00	0.00
All Band Ant 5	Front	0.886			0.756			0.89	1.64	1.64
	Back	0.351			0.292		0.008	0.36	0.65	0.65
	Left side							0.00	0.00	0.00
	Right side	0.796		1.793	1.093			2.59	1.89	1.89
	Top side	1.905			1.271			1.91	3.18	3.18
	Bottom side							0.00	0.00	0.00
All Band Ant 6	Front				0.756			0.00	0.76	0.76
	Back	0.354			0.292		0.008	0.36	0.65	0.65
	Left side							0.00	0.00	0.00
	Right side	1.935		1.793	1.093			3.73	3.03	3.03
	Top side				1.271			0.00	1.27	1.27
	Bottom side							0.00	0.00	0.00

All Band Ant 7	Front	1.049			0.756			1.05	1.81	1.81
	Back	0.651			0.292		0.008	0.66	0.95	0.95
	Left side							0.00	0.00	0.00
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side	2.087			1.271			2.09	3.36	3.36
	Bottom side							0.00	0.00	0.00
All Band Ant 8	Front	1.016			0.756			1.02	1.77	1.77
	Back	1.202			0.292		0.008	1.21	1.50	1.50
	Left side							0.00	0.00	0.00
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side	2.403			1.271			2.40	3.67	3.67
	Bottom side							0.00	0.00	0.00
All Band Ant 9	Front				0.756			0.00	0.76	0.76
	Back	1.819			0.292		0.008	1.83	2.12	2.12
	Left side	2.466						2.47	2.47	2.47
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side				1.271			0.00	1.27	1.27
	Bottom side							0.00	0.00	0.00
All Band Ant 11	Front				0.756			0.00	0.76	0.76
	Back	2.319			0.292		0.008	2.33	2.62	2.62
	Left side	1.627						1.63	1.63	1.63
	Right side			1.793	1.093			1.79	1.09	1.09
	Top side				1.271			0.00	1.27	1.27
	Bottom side							0.00	0.00	0.00

17.6 Total Exposure Ratio

<Total exposure ratio>

Max 1g SAR	WPT SAR	TER
(W/kg)	(W/kg)	Reported SAR/1.6 + WPT SAR /1.6 Summation
1.590	0.000000454	0.99

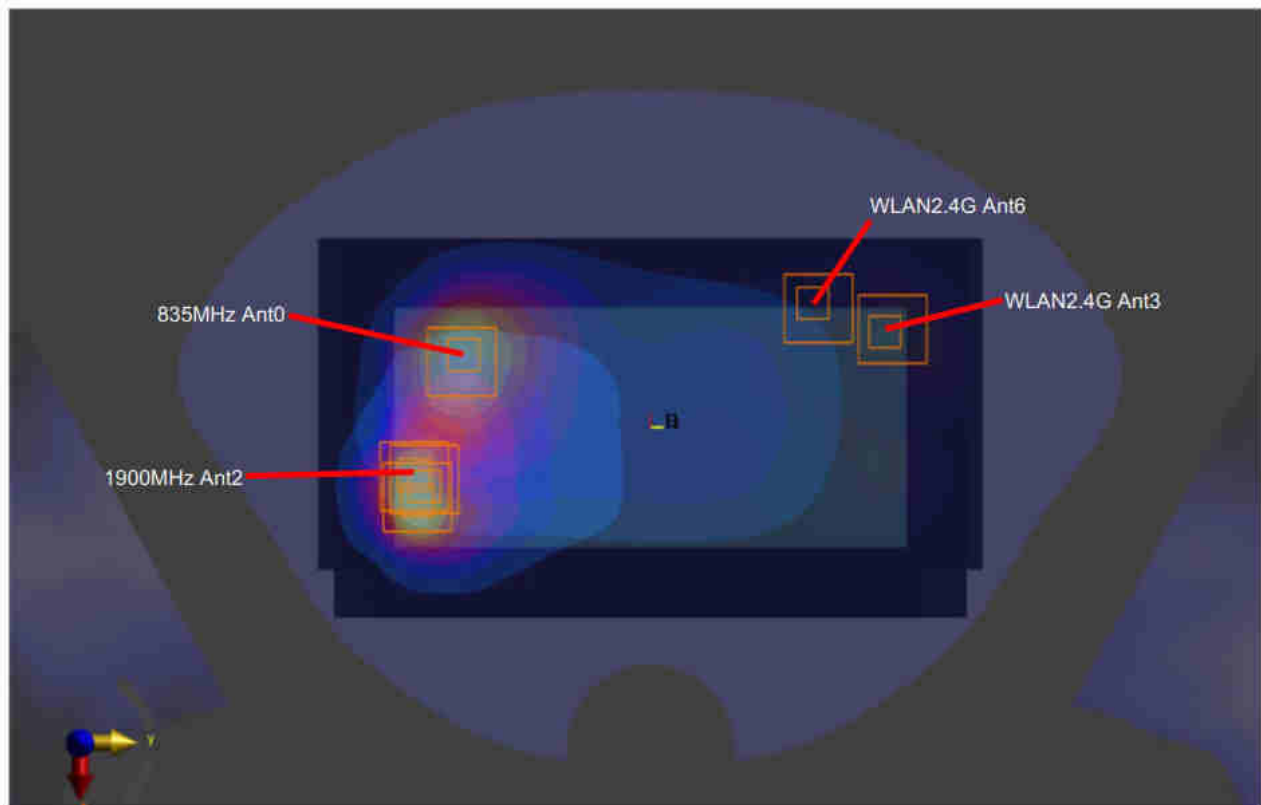
Max 10g SAR	WPT SAR	TER
(W/kg)	(W/kg)	Reported SAR/4.0 + WPT SAR /4.0 Summation
3.730	0.000000243	0.93

Remark: WPT SAR value is from another WPT SAR report which is submitted separately.

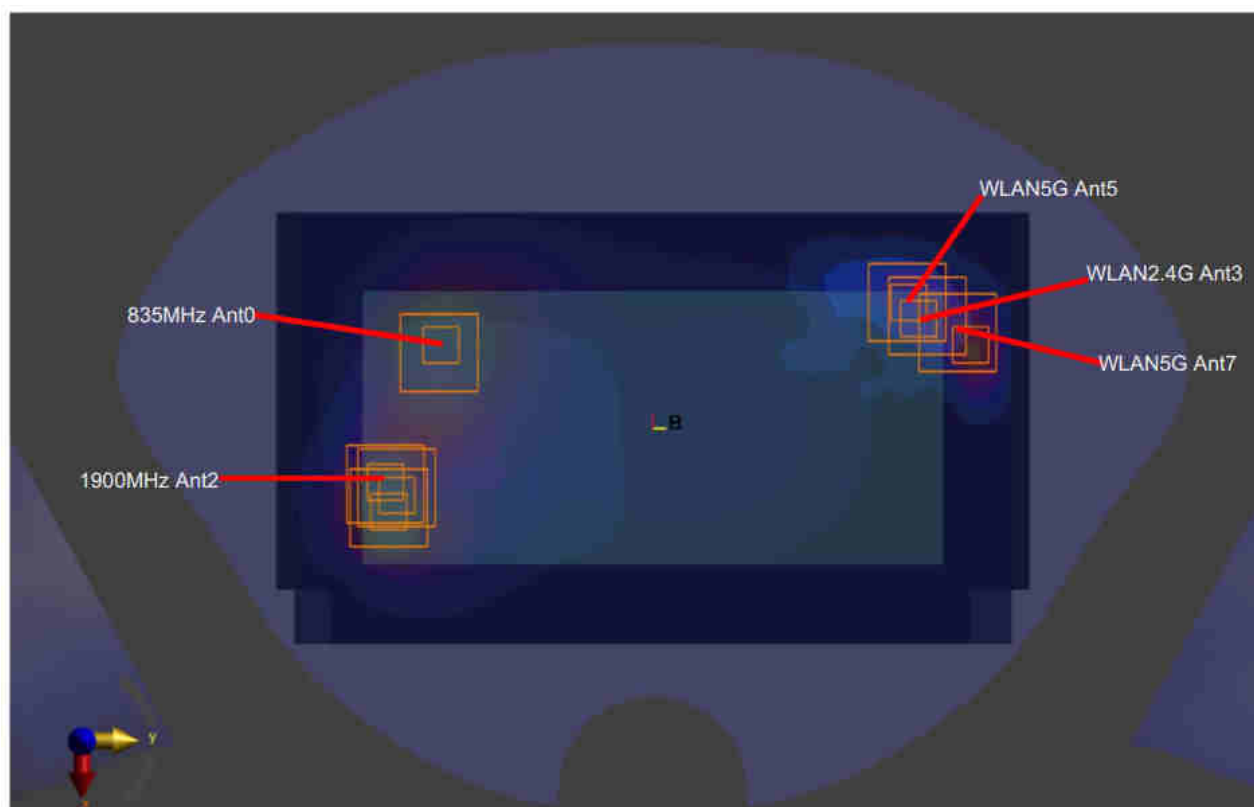
17.7 SPLSR Evaluation and Analysis

General Note:

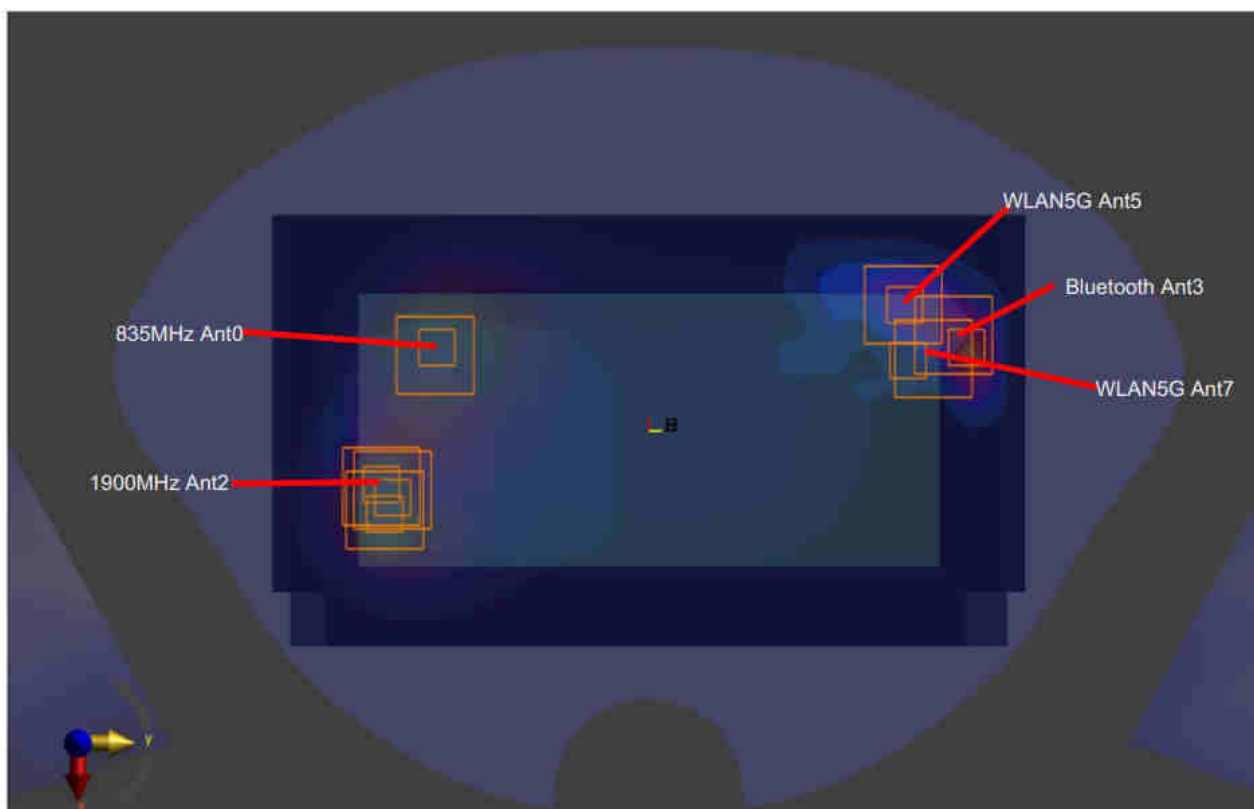
1. When standalone SAR is measured for both antennas in the pair, the peak location separation distance is computed by the square root of $[(x_1-x_2)^2 + (y_1-y_2)^2 + (z_1-z_2)^2]$, where (x_1, y_1, z_1) and (x_2, y_2, z_2) are the coordinates in the area scans or extrapolated peak SAR locations in the zoom scans, as appropriate.
2. $SPLSR = (SAR_1 + SAR_2)1.5 / (\text{min. separation distance, mm})$. If $SPLSR \leq 0.04$ for 1g SAR and $SPLSR \leq 0.10$ for 10g SAR, simultaneously transmission SAR measurement is not necessary.
3. Per April 2022 TCB Workshop Notes, WLAN 2.4GHz ant 3 was summed algebraically with WLAN 2.4 GHz ant 6/ WLAN 5 GHz ant 5/7 for the purposes of hybrid SPLSR combination and they are located at the top of the device.
4. Per April 2022 TCB Workshop, instead of doing a small volume scan over a co-located antenna pair, used summing the SAR values of the co-located pair and using that value in SPLSR calculation. In the calculation used the minimum distance between the spatially separated antenna and the closest antenna of the co-located antenna pair to be conservative.
5. The detail hotspot point for each transmitter in each exposure condition are showing as below figure and the minimum 3D distance for each sum combination is used for SPLSR analysis.
6. The axis peak locations refer to Section 17.7.



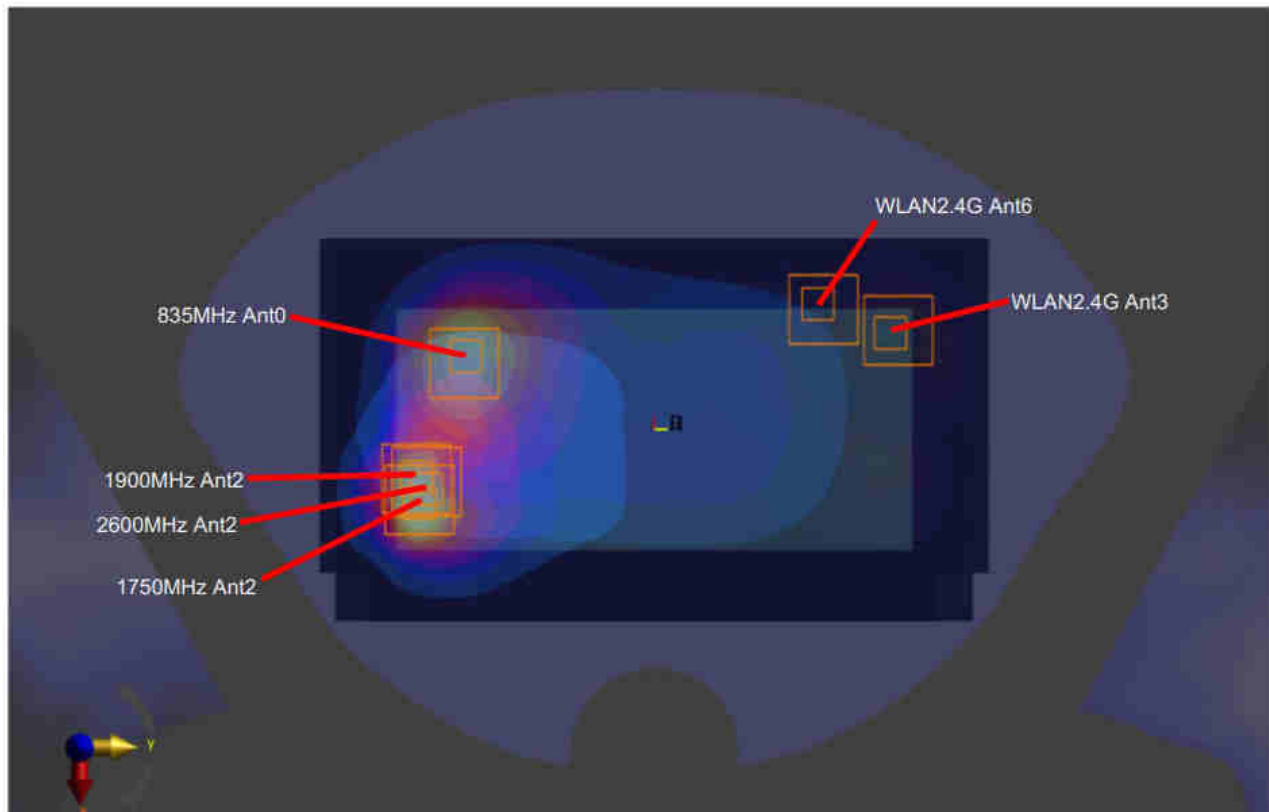
Hotspot 5mm_WWAN+WIFI2.4GHz



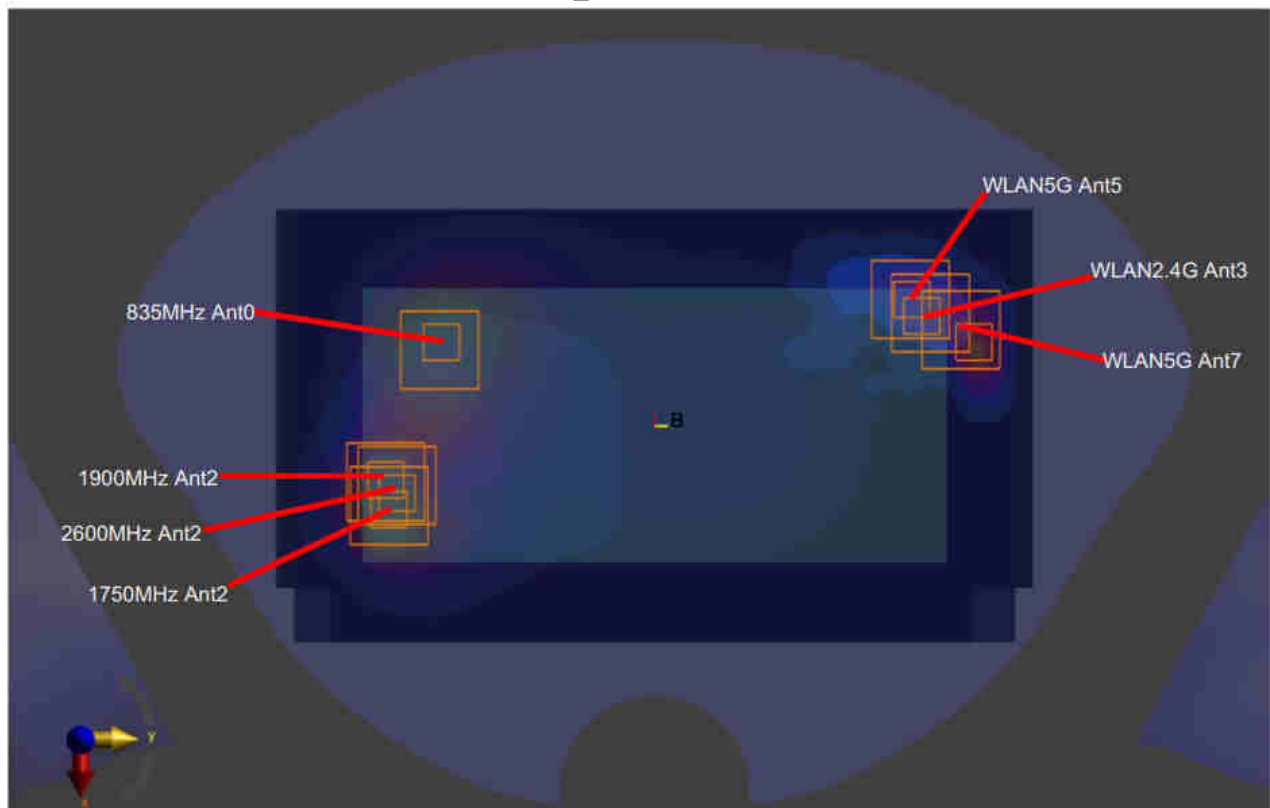
Hotspot 5mm_WWAN+WIFI2.4GHz +WIFI5GHz



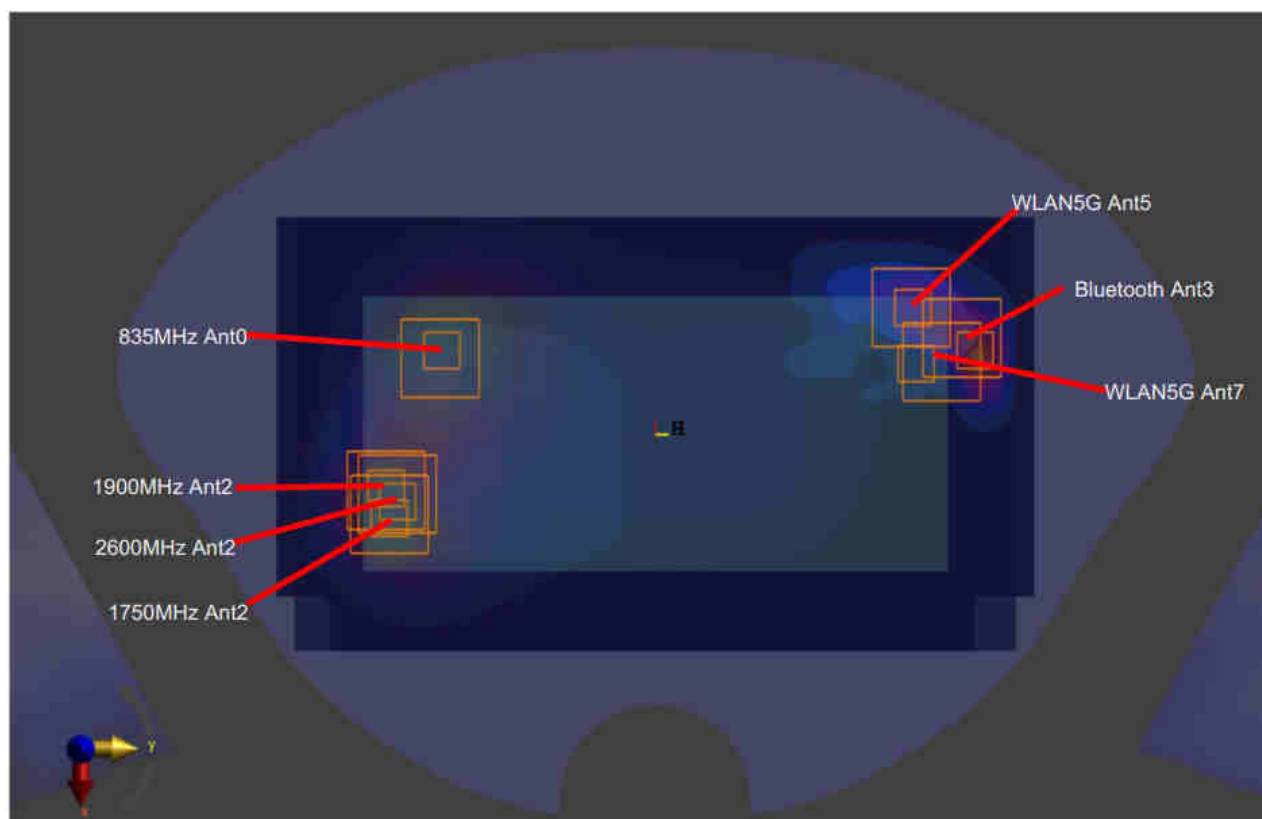
Hotspot 5mm_WWAN+WIFI5GHz +BT



Back 5mm_WWAN+WIFI2.4GHz



Back 5mm_WWAN+WIFI2.4GHz +WIFI5-6GHz


Back 5mm_WWAN+WIFI5-6GHz +BT
<Hotspot>

Notes:

WWAN + WIFI 2.4G MIMO												
Case 1	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	131.8	1.77	0.02	Not required
	WLAN2.4GHz Ant 3		0.254	0.519	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.265		5mm							
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	112.1	1.77	0.02	Not required
	WLAN2.4GHz Ant 3		0.254	0.519	5mm							
	WLAN2.4GHz Ant 6		0.265		5mm	-65	50	-204				
Case 4	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	154.2	1.72	0.01	Not required
	WLAN2.4GHz Ant 3		0.254	0.519	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.265		5mm							
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	139.1	1.72	0.02	Not required
	WLAN2.4GHz Ant 3		0.254	0.519	5mm							
	WLAN2.4GHz Ant 6		0.265		5mm	-65	50	-204				
WWAN + WIFI 5/6G + BT												
Case 2	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	151.2	1.66	0.01	Not required
	WLAN5GHz Ant 5+7		0.299	0.418	5mm	-46	89	-204				
	Bluetooth Ant 3		0.119		5mm							
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	133.1	1.66	0.02	Not required
	WLAN5GHz Ant 5+7		0.299	0.418	5mm							
Bluetooth Ant 3	0.119		5mm		-49	71	-204					

Case 5	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	170.2	1.62	0.01	Not required
	WLAN5GHz Ant 5+7		0.299	0.418	5mm	-46	89	-204				
	Bluetooth Ant 3		0.119		5mm							
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	153.5	1.62	0.01	Not required
	WLAN5GHz Ant 5+7		0.299	0.418	5mm							
	Bluetooth Ant 3		0.119		5mm	-49	71	-204				
WWAN + WIFI 2.4G + WIFI 5/6G												
Case 3	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	131.8	1.80	0.02	Not required
	WLAN2.4GHz Ant 3		0.254	0.553	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.299		5mm							
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	151.2	1.80	0.02	Not required
	WLAN2.4GHz Ant 3		0.254	0.553	5mm							
	WLAN5GHz Ant 5+7		0.299		5mm	-46	89	-204				
Case 6	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	154.2	1.75	0.02	Not required
	WLAN2.4GHz Ant 3		0.254	0.553	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.299		5mm							
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	170.2	1.75	0.01	Not required
	WLAN2.4GHz Ant 3		0.254	0.553	5mm							
	WLAN5GHz Ant 5+7		0.299		5mm	-46	89	-204				

<Body-worn>

WWAN + WIFI 2.4G MIMO												
Case	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
Case 7	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	131.8	1.91	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	112.1	1.91	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
Case 10	WCDMA IV Ant 2	Back	1.126	1.126	5mm	-8.2	-76.9	-207	154.2	1.79	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	WCDMA IV Ant 2	Back	1.126	1.126	5mm	-8.2	-76.9	-207	139.1	1.79	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
Case 13	LTE Band 66 Ant 2	Back	1.169	1.169	5mm	-4.4	-79.1	-207	157.5	1.84	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	LTE Band 66 Ant 2	Back	1.169	1.169	5mm	-4.4	-79.1	-207	142.6	1.84	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
Case 16												



	FR1 n66 Ant 2	Back	1.278	1.278	5mm	-5.3	-77.6	-207	155.7	1.95	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	FR1 n66 Ant 2	Back	1.278	1.278	5mm	-5.3	-77.6	-207	140.9	1.95	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case 19	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	154.2	1.87	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	139.1	1.87	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case 22	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	WCDMA II Ant 2	Back	1.181	1.181	5mm	-9.4	-77.9	-207	154.8	1.85	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	WCDMA II Ant 2	Back	1.181	1.181	5mm	-9.4	-77.9	-207	139.5	1.85	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case 25	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	LTE Band 25 Ant 2	Back	1.16	1.16	5mm	-8.4	-84.4	-207	161.3	1.83	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	LTE Band 25 Ant 2	Back	1.16	1.16	5mm	-8.4	-84.4	-207	145.9	1.83	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case 28	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	FR1 n2 Ant 2	Back	1.19	1.19	5mm	-7.5	-83.6	-207	160.8	1.86	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	FR1 n2 Ant 2	Back	1.19	1.19	5mm	-7.5	-83.6	-207	145.5	1.86	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case 31	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	LTE Band 7 Ant 2	Back	1.113	1.113	5mm	-9	-73	-207	150.2	1.78	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	LTE Band 7 Ant 2	Back	1.113	1.113	5mm	-9	-73	-207	135.2	1.78	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case 34	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	LTE Band 41 Ant 2	Back	1.187	1.187	5mm	-7.8	-72.1	-207	149.7	1.86	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	LTE Band 41 Ant 2	Back	1.187	1.187	5mm	-7.8	-72.1	-207	134.9	1.86	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				



	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
					(mm)	X	Y	Z				
Case 37	FR1 n7 Ant 2	Back	1.278	1.278	5mm	-7.6	-71	-207	148.8	1.95	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	FR1 n7 Ant 2	Back	1.278	1.278	5mm	-7.6	-71	-207	134.0	1.95	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
Case 40	FR1 n41 Ant 2	Back	1.272	1.272	5mm	-8.2	-72.6	-207	150.1	1.94	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm	-55	70	-207				
	WLAN2.4GHz Ant 6		0.321		5mm							
	FR1 n41 Ant 2	Back	1.272	1.272	5mm	-8.2	-72.6	-207	135.2	1.94	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.668	5mm							
	WLAN2.4GHz Ant 6		0.321		5mm	-65	50	-204				
WWAN + WIFI 5/6G + BT												
Case 8	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	151.2	1.81	0.02	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	133.1	1.81	0.02	Not required
WLAN5GHz Ant 5+7	0.357		0.56	5mm								
Bluetooth Ant 3	0.203			5mm	-49	71	-204					
Case 11	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	WCDMA IV Ant 2	Back	1.126	1.126	5mm	-7.4	-80.1	-207	173.5	1.69	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	WCDMA IV Ant 2	Back	1.126	1.126	5mm	-7.4	-80.1	-207	156.8	1.69	0.01	Not required
WLAN5GHz Ant 5+7	0.357		0.56	5mm								
Bluetooth Ant 3	0.203			5mm	-49	71	-204					
Case 14	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	LTE Band 66 Ant 2	Back	1.169	1.169	5mm	-4.4	-79.1	-207	173.2	1.73	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	LTE Band 66 Ant 2	Back	1.169	1.169	5mm	-4.4	-79.1	-207	156.6	1.73	0.01	Not required
WLAN5GHz Ant 5+7	0.357		0.56	5mm								
Bluetooth Ant 3	0.203			5mm	-49	71	-204					
Case 17	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	FR1 n66 Ant 2	Back	1.278	1.278	5mm	-5.3	-77.6	-207	171.5	1.84	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	FR1 n66 Ant 2	Back	1.278	1.278	5mm	-5.3	-77.6	-207	154.9	1.84	0.02	Not required
WLAN5GHz Ant 5+7	0.357		0.56	5mm								
Bluetooth Ant 3	0.203			5mm	-49	71	-204					
Case 20	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	170.2	1.76	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
Bluetooth Ant 3	0.203		5mm									



	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	153.5	1.76	0.02	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
Case 23	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	WCDMA II Ant 2	Back	1.181	1.181	5mm	-9.4	-77.9	-207	170.9	1.74	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	WCDMA II Ant 2	Back	1.181	1.181	5mm	-9.4	-77.9	-207	154.1	1.74	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
Case 26	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 25 Ant 2	Back	1.16	1.16	5mm	-8.4	-84.4	-207	177.5	1.72	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	LTE Band 25 Ant 2	Back	1.16	1.16	5mm	-8.4	-84.4	-207	160.6	1.72	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
Case 29	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	FR1 n2 Ant 2	Back	1.19	1.19	5mm	-7.5	-83.6	-207	176.9	1.75	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	FR1 n2 Ant 2	Back	1.19	1.19	5mm	-7.5	-83.6	-207	160.1	1.75	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
Case 32	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 7 Ant 2	Back	1.113	1.113	5mm	-9	-73	-207	166.2	1.67	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	LTE Band 7 Ant 2	Back	1.113	1.113	5mm	-9	-73	-207	149.5	1.67	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
Case 35	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	LTE Band 41 Ant 2	Back	1.187	1.187	5mm	-7.8	-72.1	-207	165.6	1.75	0.01	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	LTE Band 41 Ant 2	Back	1.187	1.187	5mm	-7.8	-72.1	-207	148.9	1.75	0.02	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
Case 38	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	FR1 n7 Ant 2	Back	1.278	1.278	5mm	-7.6	-71	-207	164.6	1.84	0.02	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm	-46	89	-204				
	Bluetooth Ant 3		0.203		5mm							
	FR1 n7 Ant 2	Back	1.278	1.278	5mm	-7.6	-71	-207	147.9	1.84	0.02	Not required
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
Case 41	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
	FR1 n41 Ant 2	Back	1.272	1.272	5mm	-8.2	-72.6	-207	166.0	1.83	0.01	Not required



	WLAN5GHz Ant 5+7	Back	0.357	0.56	5mm	-46	89	-204	149.3	1.83	0.02	Not required
	Bluetooth Ant 3		0.203		5mm							
	FR1 n41 Ant 2		1.272	1.272	5mm	-8.2	-72.6	-207				
	WLAN5GHz Ant 5+7		0.357	0.56	5mm							
	Bluetooth Ant 3		0.203		5mm	-49	71	-204				
WWAN + WIFI 2.4G + WIFI 5/6G												
Case 9	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	131.8	1.95	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	GSM850 Ant 0	Back	1.246	1.246	5mm	-57.1	-61.8	-207	151.2	1.95	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
WLAN5GHz Ant 5+7	0.357		5mm		-46	89	-204					
Case 12	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	WCDMA IV Ant 2	Back	1.126	1.126	5mm	-7.4	-80.1	-207	157.5	1.83	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	WCDMA IV Ant 2	Back	1.126	1.126	5mm	-7.4	-80.1	-207	173.5	1.83	0.01	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
WLAN5GHz Ant 5+7	0.357		5mm		-46	89	-204					
Case 15	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	LTE Band 66 Ant 2	Back	1.169	1.169	5mm	-4.4	-79.1	-207	157.5	1.87	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	LTE Band 66 Ant 2	Back	1.169	1.169	5mm	-4.4	-79.1	-207	173.2	1.87	0.01	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
WLAN5GHz Ant 5+7	0.357		5mm		-46	89	-204					
Case 18	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	FR1 n66 Ant 2	Back	1.278	1.278	5mm	-5.3	-77.6	-207	155.7	1.98	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	FR1 n66 Ant 2	Back	1.278	1.278	5mm	-5.3	-77.6	-207	171.5	1.98	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
WLAN5GHz Ant 5+7	0.357		5mm		-46	89	-204					
Case 21	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	154.2	1.91	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	GSM1900 Ant 2	Back	1.201	1.201	5mm	-8.2	-76.9	-207	170.2	1.91	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
WLAN5GHz Ant 5+7	0.357		5mm		-46	89	-204					
Case 24	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
	WCDMA II Ant 2	Back	1.181	1.181	5mm	-9.4	-77.9	-207	154.8	1.89	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	WCDMA II Ant 2	Back	1.181	1.181	5mm	-9.4	-77.9	-207	170.9	1.89	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
WLAN5GHz Ant 5+7	0.357		5mm		-46	89	-204					

	Band	Position	SAR (W/kg)	SAR (W/kg)	Gap (mm)	SAR peak location (mm)			3D distance (mm)	Summed SAR (W/kg)	SPLSR Results	Simultaneous SAR
						X	Y	Z				
Case 27	LTE Band 25 Ant 2	Back	1.16	1.16	5mm	-8.4	-84.4	-207	161.3	1.86	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	LTE Band 25 Ant 2	Back	1.16	1.16	5mm	-8.4	-84.4	-207	177.5	1.86	0.01	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
	WLAN5GHz Ant 5+7		0.357		5mm	-46	89	-204				
Case 30	FR1 n2 Ant 2	Back	1.19	1.19	5mm	-7.5	-83.6	-207	160.8	1.89	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	FR1 n2 Ant 2	Back	1.19	1.19	5mm	-7.5	-83.6	-207	176.9	1.89	0.01	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
	WLAN5GHz Ant 5+7		0.357		5mm	-46	89	-204				
Case 33	LTE Band 7 Ant 2	Back	1.113	1.113	5mm	-9	-73	-207	150.2	1.82	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	LTE Band 7 Ant 2	Back	1.113	1.113	5mm	-9	-73	-207	166.2	1.82	0.01	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
	WLAN5GHz Ant 5+7		0.357		5mm	-46	89	-204				
Case 36	LTE Band 41 Ant 2	Back	1.187	1.187	5mm	-7.8	-72.1	-207	149.7	1.89	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	LTE Band 41 Ant 2	Back	1.187	1.187	5mm	-7.8	-72.1	-207	165.6	1.89	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
	WLAN5GHz Ant 5+7		0.357		5mm	-46	89	-204				
Case 39	FR1 n7 Ant 2	Back	1.278	1.278	5mm	-7.6	-71	-207	148.8	1.98	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	FR1 n7 Ant 2	Back	1.278	1.278	5mm	-7.6	-71	-207	164.6	1.98	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
	WLAN5GHz Ant 5+7		0.357		5mm	-46	89	-204				
Case 42	FR1 n41 Ant 2	Back	1.272	1.272	5mm	-8.2	-72.6	-207	150.1	1.98	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm	-55	70	-207				
	WLAN5GHz Ant 5+7		0.357		5mm							
	FR1 n41 Ant 2	Back	1.272	1.272	5mm	-8.2	-72.6	-207	166.0	1.98	0.02	Not required
	WLAN2.4GHz Ant 3		0.347	0.704	5mm							
	WLAN5GHz Ant 5+7		0.357		5mm	-46	89	-204				

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18. Uncertainty Assessment

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

Declaration of Conformity:

The test results with all measurement uncertainty excluded is 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.

The component of uncertainty may generally be categorized according to the methods used to evaluate them. The evaluation of uncertainty by the statistical analysis of a series of observations is termed a Type A evaluation of uncertainty. The evaluation of uncertainty by means other than the statistical analysis of a series of observation is termed a Type B evaluation of uncertainty. Each component of uncertainty, however evaluated, is represented by an estimated standard deviation, termed standard uncertainty, which is determined by the positive square root of the estimated variance.

A Type A evaluation of standard uncertainty may be based on any valid statistical method for treating data. This includes calculating the standard deviation of the mean of a series of independent observations; using the method of least squares to fit a curve to the data in order to estimate the parameter of the curve and their standard deviations; or carrying out an analysis of variance in order to identify and quantify random effects in certain kinds of measurement.

A type B evaluation of standard uncertainty is typically based on scientific judgment using all of the relevant information available. These may include previous measurement data, experience, and knowledge of the behavior and properties of relevant materials and instruments, manufacture's specification, data provided in calibration reports and uncertainties assigned to reference data taken from handbooks. Broadly speaking, the uncertainty is either obtained from an outdoor source or obtained from an assumed distribution, such as the normal distribution, rectangular or triangular distributions indicated in table below.

Uncertainty Distributions	Normal	Rectangular	Triangular	U-Shape
Multi-plying Factor ^(a)	$1/k^{(b)}$	$1/\sqrt{3}$	$1/\sqrt{6}$	$1/\sqrt{2}$

(a) standard uncertainty is determined as the product of the multiplying factor and the estimated range of variations in the measured quantity

(b) k is the coverage factor

Standard Uncertainty for Assumed Distribution

The combined standard uncertainty of the measurement result represents the estimated standard deviation of the result. It is obtained by combining the individual standard uncertainties of both Type A and Type B evaluation using the usual "root-sum-squares" (RSS) methods of combining standard deviations by taking the positive square root of the estimated variances.

Expanded uncertainty is a measure of uncertainty that defines an interval about the measurement result within which the measured value is confidently believed to lie. It is obtained by multiplying the combined standard uncertainty by a coverage factor. Typically, the coverage factor ranges from 2 to 3. Using a coverage factor allows the true value of a measured quantity to be specified with a defined probability within the specified uncertainty range. For purpose of this document, a coverage factor two is used, which corresponds to confidence interval of about 95 %. The DASY uncertainty Budget is shown in the following tables.

The judgment of conformity in the report is based on the measurement results excluding the measurement uncertainty.

Uncertainty Budget According to IEC/IEEE 62209-1528 (Frequency band: 4 MHz - 10 GHz range)							
Error Description	Uncert. Value (±%)	Prob. Dist.	Div.	(Ci) 1g	(Ci) 10g	Standard Uncertainty (1g) (±%)	Standard Uncertainty (10g) (±%)
Measurement System errors							
Probe calibration	18.6	N	2	1	1	9.3	9.3
Probe calibration drift	1.7	R	1.732	1	1	1.0	1.0
Probe linearity and detection Limit	4.7	R	1.732	1	1	2.7	2.7
Broadband signal	2.8	R	1.732	1	1	1.6	1.6
Probe isotropy	7.6	R	1.732	1	1	4.4	4.4
Other probe and data acquisition errors	2.4	N	1	1	1	2.4	2.4
RF ambient and noise	1.8	N	1	1	1	1.8	1.8
Probe positioning errors	0.006	N	1	0.5	0.5	0.0	0.0
Data processing errors	4.0	N	1	1	1	4.0	4.0
Phantom and Device Errors							
Measurement of phantom conductivity (σ)	2.5	N	1	0.78	0.71	2.0	1.8
Temperature effects (medium)	5.4	R	1.732	0.78	0.71	2.4	2.2
Shell permittivity	14.0	R	1.732	0.5	0.5	4.0	4.0
Distance between the radiating element of the DUT and the phantom medium	2.0	N	1	2	2	4.0	4.0
Repeatability of positioning the DUT or source against the phantom	1.0	N	1	1	1	1.0	1.0
Device holder effects	3.6	N	1	1	1	3.6	3.6
Effect of operating mode on probe sensitivity	2.4	R	1.732	1	1	1.4	1.4
Time-average SAR	1.7	R	1.732	1	1	1.0	1.0
Variation in SAR due to drift in output of DUT	2.5	N	1	1	1	2.5	2.5
Validation antenna uncertainty (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Uncertainty in accepted power (validation measurement only)	0.0	N	1	1	1	0.0	0.0
Correction to the SAR results							
Phantom deviation from target (ϵ' , σ)	1.9	N	1	1	0.84	1.9	1.6
SAR scaling	0.0	R	1.732	1	1	0.0	0.0
Combined Std. Uncertainty						14.5%	14.4%
Coverage Factor for 95 %						K=2	K=2
Expanded STD Uncertainty						29.0%	28.8%

SAR Uncertainty Budget for frequency range 4MHz to 10GHz

cDASY6 Module mmWave Uncertainty Budget Evaluation Distances to the Antennas > $\lambda/2\pi$ In Compliance with IEC TR 63170					
Error Description	Uncertainty Value (±dB)	Probability	Divisor	(Ci)	Standard Uncertainty (±dB)
Uncertainty terms dependent on the measurement system					
Probe Calibration	0.49	N	1	1	0.49
Probe correction	0.00	R	1.732	1	0.00
Frequency response	0.20	R	1.732	1	0.12
Sensor cross coupling	0.00	R	1.732	1	0.00
Isotropy	0.50	R	1.732	1	0.29
Linearity	0.20	R	1.732	1	0.12
Probe scattering	0.00	R	1.732	1	0.00
Probe positioning offset	0.30	R	1.732	1	0.17
Probe positioning repeatability	0.04	R	1.732	1	0.02
Sensor mechanical offset	0.00	R	1.732	1	0.00
Probe spatial resolution	0.00	R	1.732	1	0.00
Field impedance dependence	0.00	R	1.732	1	0.00
Amplitude and phase drift	0.00	R	1.732	1	0.00
Amplitude and phase noise	0.04	R	1.732	1	0.02
Measurement area truncation	0.00	R	1.732	1	0.00
Data acquisition	0.03	N	1	1	0.03
Sampling	0.00	R	1.732	1	0.00
Field reconstruction	2.00	R	1.732	1	1.15
Forward transformation	0.00	R	1.732	1	0.00
Power density scaling	0.00	R	1.732	1	0.00
Spatial averaging	0.10	R	1.732	1	0.06
System detection limit	0.04	R	1.732	1	0.02
Uncertainty terms dependent on the DUT and environmental factors					
Probe coupling with DUT	0.00	R	1.732	1	0.0
Modulation response	0.40	R	1.732	1	0.2
Integration time	0.00	R	1.732	1	0.0
Response time	0.00	R	1.732	1	0.0
Device holder influence	0.10	R	1.732	1	0.1
DUT alignment	0.00	R	1.732	1	0.0
RF ambient conditions	0.04	R	1.732	1	0.0
Ambient reflections	0.04	R	1.732	1	0.0
Immunity / secondary reception	0.00	R	1.732	1	0.0
Drift of the DUT		R	1.732	1	
Combined Std. Uncertainty					1.34
Expanded STD Uncertainty (95%)					2.68
PD Uncertainty Budget					

19. References

- [1] FCC 47 CFR Part 2 "Frequency Allocations and Radio Treaty Matters; General Rules and Regulations"
- [2] ANSI/IEEE Std. C95.1-1992, "IEEE Standard for Safety Levels with Respect to Human Exposure to Radio Frequency Electromagnetic Fields, 3 kHz to 300 GHz", September 1992
- [3] IEEE Std. 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Average Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", Sep 2013
- [4] SPEAG DASY System Handbook
- [5] FCC KDB 865664 D01 v01r04, "SAR Measurement Requirements for 100 MHz to 6 GHz", Aug 2015.
- [6] FCC KDB 865664 D02 v01r02, "RF Exposure Compliance Reporting and Documentation Considerations" Oct 2015.
- [7] FCC KDB 648474 D04 v01r03, "SAR Evaluation Considerations for Wireless Handsets", Oct 2015.
- [8] FCC KDB 248227 D01 v02r02, "SAR Guidance for IEEE 802.11 (WiFi) Transmitters", Oct 2015.
- [9] FCC KDB 616217 D04 v01r02, "SAR Evaluation Considerations for Laptop, Notebook, Netbook and Tablet Computers", Oct 2015
- [10] FCC KDB 941225 D01 v03r01, "3G SAR MEAUREMENT PROCEDURES", Oct 2015
- [11] FCC KDB 941225 D05 v02r05, "SAR Evaluation Considerations for LTE Devices", Dec 2015
- [12] FCC KDB 941225 D05A v01r02, "Rel. 10 LTE SAR Test Guidance and KDB Inquiries", Oct 2015
- [13] FCC KDB 941225 D06 v02r01, "SAR Evaluation Procedures for Portable Devices with Wireless Router Capabilities", Oct 2015.
- [14] FCC KDB 447498 D01 v06, "Mobile and Portable Device RF Exposure Procedures and Equipment Authorization Policies", Oct 2015
- [15] IEC/IEEE 62209-1528:2020, "Measurement procedure for the assessment of specific absorption rate of human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Part 1528: Human models, instrumentation, and procedures (Frequency range of 4 MHz to 10 GHz)", Oct. 2020
- [16] IEC 62479:2010 Assessment of the compliance of low power electronic and electrical equipment with the basic restrictions related to human exposure to electromagnetic fields (10 MHz to 300 GHz)
- [17] IEC TR 63170: 2018 Measurement procedure for the evaluation of power density related to human exposure to radio frequency fields from wireless communication devices operating between 6 GHz and 100 GHz
- [18] SPEAG DASY6 Application Note (Interim Procedures for Devices Operating at 6-10 GHz)

Appendixes

Please refer to separated files for the following appendixes

Appendix A. Plots of System Performance Check

Appendix B. Plots of High SAR and PD Measurement

Appendix C. DASYS Calibration Certificate

Appendix D. Test Setup Photos

Appendix E. Conducted RF Output Power Table

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

Appendix G. Power reduction mechanism verification

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