FCC SAR Test Report

APPLICANT	: Guangdong OPPO Mobile Telecommunications Corp., Ltd.
EQUIPMENT	: Mobile Phone
BRAND NAME	: OPPO
MODEL NAME	: CPH2689
FCC ID	: R9C-OP24222
STANDARD	: FCC 47 CFR Part 2 (2.1093)

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

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

Approved by: Si Zhang

Sporton International Inc. (Shenzhen)
1/F, 2/F, Bldg 5, Shiling Industrial Zone, Xinwei Village, Xili, Nanshan, Shenzhen, 518055
People's Republic of China

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Revision History

REPORT NO.	VERSION	DESCRIPTION	ISSUED DATE
FA491807	Rev. 01	Initial issue of report.	Nov. 12, 2024

1. Statement of Compliance

The maximum results of Specific Absorption Rate (SAR) found during testing for **Guangdong OPPO Mobile Telecommunications Corp., Ltd., Mobile Phone, CPH2689,** are as follows.

Highest 1g SAR Summary						
Equipment Class	Frequency Band		Head (Separation 0mm)	Hotspot (Separation 10mm)	Body-worn (Separation 15mm)	Highest Simultaneous Transmission 1g SAR (W/kg)
			1g SAR (W/kg)			
Licensed	GSM	GSM850	1.06	0.84	**0.52**	1.48
		GSM1900	1.05	0.82	0.37	
	WCDMA	WCDMA II	0.85	0.55	0.25	
		WCDMA IV	0.96	0.47	0.21	
		WCDMA V	0.96	0.63	0.34	
	LTE	LTE Band 2	1.11	0.71	0.41	
		LTE Band 4/66	1.15	0.63	0.32	
		LTE Band 7	0.68	0.37	0.18	
		LTE Band 12/17	0.40	0.28	0.32	
		LTE Band 13	0.31	0.47	0.30	
		LTE Band 5/18/19/26	0.57	0.42	0.28	
		LTE Band 38	0.97	0.52	0.25	
		LTE Band 41	1.03	0.61	0.20	
	5G NR	FR1 n2	1.06	0.76	0.37	
		FR1 n5/26	0.57	0.60	0.28	
		FR1 n7	1.17	0.67	0.30	
		FR1 n12	0.20	0.12	0.13	
		FR1 n66	1.10	0.68	0.34	
		FR1 n38	**1.18**	0.69	0.20	
		FR1 n41	0.65	0.36	0.26	
		FR1 n77	1.07	0.75	0.27	
		FR1 n78	1.07	**0.86**	0.38	
DTS	WLAN	2.4GHz WLAN	1.02	0.85	0.21	1.48
NII		5GHz WLAN	1.00	0.57	0.27	1.48
DSS	Bluetooth	2.4GHz Bluetooth	0.91	0.70	0.27	1.48

Highest 10g SAR Summary				
Equipment Class	Frequency Band		Product Specific 10g SAR (W/kg) (Separation 0mm)	Highest Simultaneous Transmission 10g SAR (W/kg)
NII	WLAN	5GHz WLAN	**2.37**	2.37
Date of Testing:			2024/9/30 ~ 2024/11/12	

Remark:

1. This device supports LTE B17 /B4 /B5/B18/B19 and B12 /B66 /B26. Since the supported frequency span for LTE B17 /B4 /B5/B18/B19 falls completely within the supports frequency span for LTE B12 /B66 /B26, both LTE bands have the same target power, and both LTE bands share the same transmission path; therefore, SAR was only assessed for LTE B12 /B66 /B26.
2. This device supports 5GNR n5 and 5GNR n26. Since the supported frequency span for 5GNR n5 falls completely within the supports frequency span for 5GNR n26, both 5GNR bands have the same target power, and both 5GNR bands share the same transmission path; therefore, SAR was only assessed for 5GNR n26.

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

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

2. Administration Data

Sporton International Inc. (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	CN1256	421272

Applicant	
Company Name	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China

Manufacturer	
Company Name	Guangdong OPPO Mobile Telecommunications Corp., Ltd.
Address	NO.18 HaiBin Road, Wusha Village, Chang'an Town, DongGuan City, Guangdong Province, P.R. China

3. Guidance Applied

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

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

4. Equipment Under Test (EUT) Information

4.1 General Information

Product Feature & Specification	
Equipment Name	Mobile Phone
Brand Name	OPPO
Model Name	CPH2689
FCC ID	R9C-OP24222
IMEI Code	Sample 1: IMEI 1: 863233070022291 IMEI 2: 863233070022283 Sample 2: IMEI 1: 863233070020956 IMEI 2: 863233070020949
Wireless Technology and Frequency Range	GSM850: 824 MHz ~ 849 MHz GSM1900: 1850MHz ~ 1910MHz 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 18: 815 MHz ~ 830 MHz LTE Band 19: 830 MHz ~ 845 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz 5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR 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 n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz WLAN 2.4GHz Band: 2412 MHz ~ 2462 MHz WLAN 5.2GHz Band: 5180 MHz ~ 5240 MHz WLAN 5.3GHz Band: 5260 MHz ~ 5320 MHz WLAN 5.5GHz Band: 5500 MHz ~ 5700 MHz WLAN 5.8GHz Band: 5745 MHz ~ 5825 MHz Bluetooth: 2402 MHz ~ 2480 MHz NFC : 13.56 MHz
Mode	GSM/GPRS/EGPRS RMC/AMR 12.2Kbps HSDPA HSUPA DC-HSDPA HSPA+ (16QAM uplink is supported) LTE: QPSK, 16QAM, 64QAM, 256QAM 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 Bluetooth BR/EDR/LE NFC: ASK
HW Version	11
SW Version	ColorOS 15.0
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	Production Unit

Remark:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
3. This device 5.2GHz WLAN/5.8GHz WLAN support hotspot operation, and 5.2GHz WLAN/5.8GHz WLAN supports WiFi Direct (GC/GO), and 5.3GHz / 5.5GHz supports WiFi Direct (GC only).
4. This device does not support DTM operation and support GRPS/EGRPS mode up to multi-slot class 12.
5. For dual SIM card mobile has two SIM slots and supports dual SIM dual standby. The WWAN radio transmission will be enabled by either one SIM at a time (single active).
6. The device implements receiver detect mechanism trigger reduced power for the power management 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. 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/BT when transmit simultaneously with each other, or when transmit simultaneously with WWAN/BT, the device power will be reduced power at head, body-worn, hotspot and extremity conditions.
8. This device supports HPUE mode for LTE band 41 with class 2 level, HPUE power have been measured separately. For HPUE power is higher than power class 3 but with lower duty cycle, the maximum average power for class 2 and class 3 is almost the same, so we chose power class 3 full SAR testing and power class 2 verify the worst case of power class 3 SAR.
9. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
10. This device supports HPUE mode for 5GNR n41 /n78 with higher power, so HPUE mode was chosen to perform full SAR testing and HPUE SAR can represent power class 3 level SAR.
11. The device has two batteries. For battery 1/2 only suppliers are different, so only battery 1 was chosen to perform full SAR testing and battery 2 verified the differences.
12. There are two samples under test, sample 1 is battery 1 (Sunwoda), sample 2 is battery 2 (NVT). According to the differences, sample 1 was chosen to perform full SAR testing and sample 2 verified the worst case of sample 1.
13. This device has NFC function and the NFC SAR report will be separately submitted.
14. This device supports 5GNR FR1 bands as following table, including NSA mode and SA mode. NSA and SA mode performed SAR separately.

<5G NR>

Mode	Band	Duplex	SCS(KHz)	Bandwidths (BW)
NSA	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n38	TDD	30	10, 15, 20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
SA	n2	FDD	15	5, 10, 15, 20
	n5	FDD	15	5, 10, 15, 20
	n7	FDD	15	5, 10, 15, 20, 25, 30, 40
	n12	FDD	15	5, 10, 15
	n26	FDD	15	5, 10, 15, 20
	n66	FDD	15	5, 10, 15, 20, 30, 40
	n38	TDD	30	10, 15, 20, 30, 40
	n41	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	n78	TDD	30	20, 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	R9C-OP24222
Equipment Name	Mobile Phone
Operating Frequency Range of each LTE transmission band	LTE Band 2: 1850 MHz ~ 1910 MHz LTE Band 4: 1710 MHz ~ 1755 MHz LTE Band 5: 824 MHz ~ 849 MHz LTE Band 7: 2500 MHz ~ 2570 MHz LTE Band 12: 699 MHz ~ 716 MHz LTE Band 13: 777 MHz ~ 787 MHz LTE Band 17: 704 MHz ~ 716 MHz LTE Band 18: 815 MHz ~ 830 MHz LTE Band 19: 830 MHz ~ 845 MHz LTE Band 26: 814 MHz ~ 849 MHz LTE Band 38: 2570 MHz ~ 2620 MHz LTE Band 41: 2496 MHz ~ 2690 MHz LTE Band 66: 1710 MHz ~ 1780 MHz
Channel Bandwidth	LTE Band 2:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 4:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz LTE Band 5:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 7: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 12:1.4MHz, 3MHz, 5MHz, 10MHz LTE Band 13: 5MHz, 10MHz LTE Band 17: 5MHz, 10MHz LTE Band 18:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, LTE Band 19:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, LTE Band 26:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz LTE Band 38: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 41: 5MHz, 10MHz, 15MHz, 20MHz LTE Band 66:1.4MHz, 3MHz, 5MHz, 10MHz, 15MHz, 20MHz
uplink modulations used	QPSK / 16QAM / 64QAM / 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 receiver detect mechanism, head/ body-worn /hotspot/extremity will trigger reduced power for some bands applied to satisfy SAR compliance, the detail please referred to section 13.
LTE Carrier Aggregation Combinations	Inter-Band and Intra-Band possible combinations and the detail power verification please referred to section 13.
LTE Carrier Aggregation Additional Information	1. This device supports LTE Carrier Aggregation (CA) in the uplink for intra-band and inter-band with two component carriers in the uplink. SAR Measurements and conducted powers were evaluated per FCC Guidance. 2. This device supports maximum of 4 carriers in the downlink and 2 carriers in the uplink.

Transmission (H, M, L) channel numbers and frequencies in each LTE band												
LTE Band 2												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	18607	1850.7	18615	1851.5	18625	1852.5	18650	1855	18675	1857.5	18700	1860
M	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880	18900	1880
H	19193	1909.3	19185	1908.5	19175	1907.5	19150	1905	19125	1902.5	19100	1900
LTE Band 4												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	19957	1710.7	19965	1711.5	19975	1712.5	20000	1715	20025	1717.5	20050	1720
M	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5	20175	1732.5
H	20393	1754.3	20385	1753.5	20375	1752.5	20350	1750	20325	1747.5	20300	1745
LTE Band 5												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20407	824.7	20415	825.5	20425	826.5	20450	829				
M	20525	836.5	20525	836.5	20525	836.5	20525	836.5				
H	20643	848.3	20635	847.5	20625	846.5	20600	844				
LTE Band 7												
	Bandwidth 5 MHz		Bandwidth 10 MHz		Bandwidth 15 MHz		Bandwidth 20 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	20775	2502.5	20800	2505	20825	2507.5	20850	2510				
M	21100	2535	21100	2535	21100	2535	21100	2535				
H	21425	2567.5	21400	2565	21375	2562.5	21350	2560				
LTE Band 12												
	Bandwidth 1.4 MHz		Bandwidth 3 MHz		Bandwidth 5 MHz		Bandwidth 10 MHz					
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)				
L	23017	699.7	23025	700.5	23035	701.5	23060	704				
M	23095	707.5	23095	707.5	23095	707.5	23095	707.5				
H	23173	715.3	23165	714.5	23155	713.5	23130	711				
LTE Band 13												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq.(MHz)					
L	23205		779.5		23230		782					
M	23230		782									
H	23255		784.5									
LTE Band 17												
	Bandwidth 5 MHz				Bandwidth 10 MHz							
	Channel #		Freq.(MHz)		Channel #		Freq. (MHz)					
L	23755		706.5		23780		709					
M	23790		710		23790		710					
H	23825		713.5		23800		711					

LTE Band18										
	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	23857	815.7	23865	816.5	23875	817.5	23900	820		
M	23925	822.5	23925	822.5	23925	822.5	23925	822.5	23925	822.5
H	23993	829.3	23985	828.5	23975	827.5	23950	825		

LTE Band 19										
	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	24007	830.7	24015	831.5	24025	832.5	24050	835		
M	24075	837.5	24075	837.5	24075	837.5	24075	837.5	24075	837.5
H	24143	844.3	24135	843.5	24125	842.5	24100	840		

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

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

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

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

<For LTE Overlap Bands Description>

1) LTE Bands BW

Band	1.4 MHz	3 MHz	5 MHz	10 MHz	15 MHz	20 MHz
LTE Band 4	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 66	Yes	Yes	Yes	Yes	Yes	Yes
LTE Band 5	Yes	Yes	Yes	Yes		
LTE Band 18	Yes	Yes	Yes	Yes	Yes	
LTE Band 19	Yes	Yes	Yes	Yes	Yes	
LTE Band 26	Yes	Yes	Yes	Yes	Yes	
LTE Band 12	Yes	Yes	Yes	Yes		
LTE Band 17			Yes	Yes		
LTE Band 38	Yes	Yes	Yes	Yes		
LTE Band 41			Yes	Yes		

2) LTE Bands tune up:

Band	Ant	Full	ECI 3	ECI 5	ECI 8	ECI 10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
LTE Band 4	Ant 5	25.0	22.1	25.0	20.2	25.0
LTE Band 66	Ant 5	25.0	22.0	25.0	20.1	25.0
LTE Band 4	Ant 6	24.2	22.1	18.5	20.2	17.8
LTE Band 66	Ant 6	24.2	21.9	18.7	20.0	18.0
LTE Band 4	Ant 11	24.4	23.9	21.6	22.2	20.9
LTE Band 66	Ant 11	24.4	24.4	22.8	22.7	22.1
LTE Band 4	Ant 7	22.1	21.6	19.2	20.0	18.5
LTE Band 66	Ant 7	22.1	22.1	19.8	20.3	19.1
LTE Band 5	Ant 1	25.0	23.9	24.8	22.0	24.1
LTE Band 18	Ant 1	25.0	25.0	25.0	24.5	25.0
LTE Band 19	Ant 1	25.0	24.5	25.0	23.0	24.1
LTE Band 26	Ant 1	25.0	24.2	24.5	22.5	24.1
LTE Band 5	Ant 0	24.6	19.6	18.3	17.8	17.6
LTE Band 18	Ant 0	24.6	22.9	19.8	21.1	19.1
LTE Band 19	Ant 0	24.6	20.6	19.3	18.8	18.6
LTE Band 26	Ant 0	24.6	19.6	18.3	17.8	17.6
LTE Band 12	Ant 1	23.8	22.1	23.8	20.3	23.8
LTE Band 17	Ant 1	23.8	23.1	23.8	21.3	23.8
LTE Band 12	Ant 0	23.4	21.1	19.8	19.4	19.1
LTE Band 17	Ant 0	23.4	22.1	20.8	20.4	20.1
LTE Band 38	Ant 5	25.0	22.7	25.0	20.9	25.0
LTE Band 41	Ant 5	22.8	22.7	22.8	20.9	22.8
LTE Band 38	Ant 6	24.3	22.0	19.1	20.2	18.4
LTE Band 41	Ant 6	22.1	21.6	18.7	19.7	17.9
LTE Band 38	Ant 11	24.5	20.6	18.5	18.7	17.8
LTE Band 41	Ant 11	22.3	20.6	14.8	18.8	14.1
LTE Band 38	Ant 7	21.3	21.3	19.8	20.8	19.1
LTE Band 41	Ant 7	19.3	19.3	18.2	19.3	17.5

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

4.3 General 5G NR SAR Test and Reporting Considerations

5G NR Information	
Operating Frequency Range of each 5G NR transmission band	5G NR n2 : 1850 MHz ~ 1910 MHz 5G NR n5 : 824 MHz ~ 849 MHz 5G NR n7 : 2500 MHz ~ 2570 MHz 5G NR n12 : 699 MHz ~ 716 MHz 5G NR 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 n77: 3700 MHz ~ 3980 MHz, 3450MHz ~ 3550MHz 5G NR n78: 3700 MHz ~ 3800 MHz, 3450MHz ~ 3550MHz
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: QPSK / 16QAM / 64QAM / 256QAM CP-OFDM: QPSK / 16QAM / 64QAM / 256QAM
A-MPR (Additional MPR) disabled for SAR Testing?	Yes
LTE Anchor Bands for n5	LTE B7/66
LTE Anchor Bands for n7	LTE B2/4/5/7/66
LTE Anchor Bands for n38	LTE B2/4/5/66
LTE Anchor Bands for n41	LTE B2/4/26/66/41
LTE Anchor Bands for n66	LTE B2/4/5/7/12/66
LTE Anchor Bands for n77	LTE B7/41
LTE Anchor Bands for n78	LTE B2/4/5/7/26/38/41/66

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

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

NR Band 7														
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz		Bandwidth 25MHz		Bandwidth 30MHz		Bandwidth 40MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	500500	2502.5	501000	2505	501500	2507.5	502000	2510	502500	2512.5	503000	2515	504000	2520
M	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535	507000	2535
H	513500	2567.5	513000	2565	512500	2562.5	512000	2560	511500	2557.5	511000	2555	510000	2550

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

NR Band 26								
	Bandwidth 5MHz		Bandwidth 10MHz		Bandwidth 15MHz		Bandwidth 20MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	163300	816.5	163800	819	164300	821.5	164800	824
M	166300	831.5	166300	831.5	166300	831.5	166300	831.5
H	169300	846.5	168800	844	168300	841.5	167800	839

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

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

NR Band 41																				
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	501204	2506.02	502200	2511	503202	2516.01	504204	2521.02	505200	2526	506202	2531.01	507204	2536.02	508200	2541	509202	2546.01
M	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99	518598	2592.99
H	535998	2679.99	534996	2674.98	534000	2670	532998	2664.99	531996	2659.98	531000	2655	529998	2649.99	528996	2644.98	528000	2640

NR Band 77 SCS30KHz																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02	650000	3750
M	656000	3840	656000	3840.00	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840	656000	3840
H	664666	3969.99	664332	3964.98	664000	3960	663666	3954.99	663332	3949.98	663000	3945	662666	3939.99	662332	3934.98	662000	3930

NR Band 78 SCS30KHz																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	647334	3710.01	647668	3715.02	648000	3720	648334	3725.01	648668	3730.02	649000	3735	649334	3740.01	649668	3745.02		
M	650000	3750	650000	3750.00	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750	650000	3750
H	652666	3789.99	652332	3784.98	652000	3780	651666	3774.99	651332	3769.98	651000	3765	650666	3759.99	650332	3754.98		

For <3450 MHz ~ 3550 MHz >

NR Band 77 SCS30KHz																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

NR Band 78 SCS30KHz																		
	Bandwidth 20MHz		Bandwidth 30MHz		Bandwidth 40MHz		Bandwidth 50MHz		Bandwidth 60MHz		Bandwidth 70MHz		Bandwidth 80MHz		Bandwidth 90MHz		Bandwidth 100MHz	
	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)	Ch. #	Freq. (MHz)
L	630668	3460.02	631000	3465	631334	3470.01	631668	3475.02	632000	3480	632334	3485.01	632668	3490.02	633000	3495		
M	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98	633332	3499.98
H	636000	3540	635666	3534.99	635332	3529.98	635000	3525	634666	3519.99	634332	3514.98	634000	3510	633666	3504.99		

<For NR Overlap Bands Description>

1) NR Bands BW

Mode	Band	Duplex	SCS(KHz)	Bandwidths(BW)
SA	FR1 n5	FDD	15	5, 10, 15, 20
	FR1 n26	FDD	15	5, 10, 15, 20
	FR1 n38	TDD	30	10, 15, 20, 30, 40
	FR1 n41	TDD	30	20, 30, 40, 50, 60,70, 80, 90, 100
	FR1 n77	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100
	FR1 n78	TDD	30	20, 30, 40, 50, 60, 70, 80, 90, 100

2) NR SA Bands Tune up:

Band	Ant	Full	ECI 3	ECI 5	ECI 8	ECI 10
		Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit	Tune-up Limit
FR1 n5	Ant 1	25.9	25.1	25.9	24.2	25.3
FR1 n26	Ant 1	25.9	25.1	25.9	23.2	25.3
FR1 n5	Ant 0	25.5	23.1	19.6	21.2	18.8
FR1 n26	Ant 0	25.5	23.1	18.6	21.2	17.8
FR1 n38	Ant 5	25.9	21.1	25.9	19.3	25.9
FR1 n41	Ant 5	26.2	20	26.2	18.2	26.2
FR1 n38	Ant 6	25.2	20.8	17.5	18.9	16.8
FR1 n41	Ant 6	25.5	19.4	13.9	17.5	13.2
FR1 n38	Ant 11	25.4	18.5	17	16.7	16.3
FR1 n41	Ant 11	25.7	18.7	12.6	16.8	11.9
FR1 n38	Ant 7	17.3	17.3	17.3	17.3	17.3
FR1 n41	Ant 7	17.5	17.5	15.4	17.5	14.7
FR1 n77	Ant 9	24.2	16.4	12	14.5	11.2
FR1 n78	Ant 9	27.2	18.5	14.5	16.6	13.8
FR1 n77	Ant 8	23.4	18.7	15.9	16.9	15.2
FR1 n78	Ant 8	27.3	19.7	14.8	17.8	14
FR1 n77	Ant 6	22.7	21.1	17.2	19.2	16.5
FR1 n78	Ant 6	25.7	22.7	15.6	20.8	14.7
FR1 n77	Ant 0	22.2	19.5	15	17.7	14.2
FR1 n78	Ant 0	25.7	21.5	15.2	19.6	14

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

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.

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 and WLAN/BT transmitter to ensure the product in compliance with FCC RF exposure limit over a defined time window. 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 Plimit 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) Plimit 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 WWAN and WLAN/BT bands. It will then be used as input for TA-SAR to control and manage RF exposure for WWAN and WLAN/BT bands.

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.

<P_{limit} for supported technologies and bands>

Band	Antenna	ECI 3	ECI 5	ECI 8	ECI 10	Pmax*	Total Uncertainty dB (k=2)
GSM850	Ant 0	23.1	20.1	21.6	19.4	23.6	1.2
GSM850	Ant 1	31.0	28.4	23.5	28.4	24.0	1.2
GSM1900	Ant 5	26.9	31.1	20.0	31.1	21.3	1.2
GSM1900	Ant 6	19.8	16.2	18.1	15.4	20.5	1.2
WCDMA II	Ant 5	20.7	32.7	18.8	32.7	22.6	1.2
WCDMA II	Ant 6	18.2	15.6	16.5	14.9	21.8	1.2
WCDMA IV	Ant 5	20.3	31.9	18.4	31.9	23.6	1.2
WCDMA IV	Ant 6	19.9	16.6	18.0	15.9	22.8	1.2
WCDMA IV	Ant 11	20.1	20.3	18.2	19.6	23.0	1.2
WCDMA IV	Ant 7	17.4	17.3	15.5	16.5	20.7	1.2
WCDMA V	Ant 0	22.0	20.7	20.3	20.0	23.2	1.2
WCDMA V	Ant 1	30.4	28.0	27.2	28.0	23.6	1.2
LTE Band 2	Ant 5	21.4	33.1	19.5	33.1	22.6	1.2
LTE Band 2	Ant 6	18.6	16.0	16.8	15.3	21.8	1.2
LTE Band 2	Ant 11	31.1	20.3	26.6	20.3	21.8	1.2
LTE Band 4	Ant 5	20.9	31.5	19.0	31.5	23.8	1.2
LTE Band 4	Ant 6	20.9	17.3	19.0	16.6	23.0	1.2
LTE Band 4	Ant 11	22.7	20.4	21.0	19.7	23.2	1.2
LTE Band 4	Ant 7	20.4	18.0	18.8	17.3	20.9	1.2
LTE Band 5	Ant 1	22.7	23.6	20.8	22.9	23.8	1.2
LTE Band 5	Ant 0	18.4	17.1	16.6	16.4	23.4	1.2
LTE Band 7	Ant 5	18.3	30.2	16.4	30.2	23.8	1.2
LTE Band 7	Ant 6	17.7	15.0	15.8	14.3	23.2	1.2
LTE Band 7	Ant 11	15.7	12.6	13.8	11.9	23.3	1.2
LTE Band 7	Ant 7	18.3	15.0	16.6	14.2	20.3	1.2
LTE Band 12	Ant 1	20.9	32.4	19.1	32.4	22.6	1.2
LTE Band 12	Ant 0	19.9	18.6	18.2	17.9	22.2	1.2
LTE Band 13	Ant 1	28.7	29.4	26.6	29.4	22.6	1.2
LTE Band 13	Ant 0	31.9	19.8	20.6	19.1	22.2	1.2
LTE Band 17	Ant 1	21.9	32.4	20.1	32.4	22.6	1.2
LTE Band 17	Ant 0	20.9	19.6	19.2	18.9	22.2	1.2
LTE Band 18	Ant 1	30.1	29.1	23.3	29.1	23.8	1.2
LTE Band 18	Ant 0	21.7	18.6	19.9	17.9	23.4	1.2
LTE Band 19	Ant 1	23.3	28.4	21.8	22.9	23.8	1.2
LTE Band 19	Ant 0	19.4	18.1	17.6	17.4	23.4	1.2
LTE Band 26	Ant 1	23.0	23.3	21.3	22.9	23.8	1.2
LTE Band 26	Ant 0	18.4	17.1	16.6	16.4	23.4	1.2
LTE Band 66	Ant 5	20.8	31.5	18.9	31.5	23.8	1.2
LTE Band 66	Ant 6	20.7	17.5	18.8	16.8	23.0	1.2
LTE Band 66	Ant 11	32.8	21.6	21.5	20.9	23.2	1.2
LTE Band 66	Ant 7	30.5	18.6	19.1	17.9	20.9	1.2
LTE Band 38	Ant 5	19.5	30.0	17.7	30.0	21.8	1.2
LTE Band 38	Ant 6	18.8	15.9	17.0	15.2	21.1	1.2
LTE Band 38	Ant 11	17.4	15.3	15.5	14.6	21.3	1.2
LTE Band 38	Ant 7	26.9	16.6	17.6	15.9	18.1	1.2
LTE Band 41 PC3	Ant 5	19.5	31.4	17.7	31.4	19.6	1.2
LTE Band 41 PC2	Ant 5					21.0	1.2

LTE Band 41 PC3	Ant 6	18.4	15.5	16.5	14.7	18.9	1.2
LTE Band 41 PC2	Ant 6					20.3	1.2
LTE Band 41 PC3	Ant 11	17.4	11.6	15.6	10.9	19.1	1.2
LTE Band 41 PC2	Ant 11					20.5	1.2
LTE Band 41 PC3	Ant 7	27.0	15.0	21.0	14.3	16.1	1.2
LTE Band 41 PC2	Ant 7					17.5	1.2
FR1 n2	Ant 5	22.1	30.8	20.2	30.8	23.0	1.2
FR1 n2	Ant 6	19.3	16.6	17.6	15.9	22.4	1.2
FR1 n5	Ant 1	23.9	28.6	23.0	24.1	24.7	1.2
FR1 n5	Ant 0	21.9	18.4	20.0	17.6	24.3	1.2
FR1 n7	Ant 5	20.0	31.5	18.1	31.5	24.7	1.2
FR1 n7	Ant 6	18.4	16.9	16.6	16.2	24.1	1.2
FR1 n7	Ant 11	17.4	15.5	15.5	14.8	24.2	1.2
FR1 n7	Ant 7	20.0	17.0	18.1	16.3	21.1	1.2
FR1 n12	Ant 1	19.4	31.8	17.5	31.8	23.0	1.2
FR1 n12	Ant 0	18.5	17.6	16.8	16.8	22.6	1.2
FR1 n26	Ant 1	23.9	28.5	22.0	24.1	24.7	1.2
FR1 n26	Ant 0	21.9	17.4	20.0	16.6	24.3	1.2
FR1 n66	Ant 5	21.8	32.0	19.9	32.0	24.7	1.2
FR1 n66	Ant 6	21.3	17.0	19.5	16.3	23.9	1.2
FR1 n66	Ant 11	32.3	21.2	23.0	20.5	24.1	1.2
FR1 n66	Ant 7	30.0	17.7	20.2	17.0	21.8	1.2
FR1 n38	Ant 5	19.9	30.5	18.1	30.5	24.7	1.2
FR1 n38	Ant 6	19.6	16.3	17.7	15.6	24.0	1.2
FR1 n38	Ant 11	17.3	15.8	15.5	15.1	24.2	1.2
FR1 n38	Ant 7	19.7	17.3	18.0	16.6	21.2	1.2
FR1 n41 PC3	Ant 5	18.8	30.8	17.0	30.8	22.0	1.2
FR1 n41 PC2	Ant 5					25.0	1.2
FR1 n41 PC3	Ant 6	18.2	12.7	16.3	12.0	21.3	1.2
FR1 n41 PC2	Ant 6					24.3	1.2
FR1 n41 PC3	Ant 11	17.5	11.4	15.6	10.7	21.5	1.2
FR1 n41 PC2	Ant 11					24.5	1.2
FR1 n41 PC3	Ant 7	18.3	14.2	16.4	13.5	18.5	1.2
FR1 n41 PC2	Ant 7					21.5	1.2
FR1 n77	Ant 9	15.2	10.8	13.3	10.0	23.0	1.2
FR1 n77	Ant 8	17.5	14.7	15.7	14.0	22.2	1.2
FR1 n77	Ant 6	19.9	16.0	18.0	15.3	21.5	1.2
FR1 n77	Ant 0	18.3	13.8	16.5	13.0	21.0	1.2
FR1 n78 PC3	Ant 9	17.3	13.3	15.4	12.6	23.0	1.2
FR1 n78 PC2	Ant 9					26.0	1.2
FR1 n78 PC3	Ant 8	18.5	13.6	16.6	12.8	23.1	1.2
FR1 n78 PC2	Ant 8					26.1	1.2
FR1 n78 PC3	Ant 6	21.5	14.4	19.6	13.5	22.0	1.2
FR1 n78 PC2	Ant 6					24.5	1.2
FR1 n78 PC3	Ant 0	20.3	14.0	18.4	12.8	21.5	1.2
FR1 n78 PC2	Ant 0					24.5	1.2

Head									
Band	Antenna	Standalone	BT+2.4G	BT+5G	BT+WWAN	2.4G+ WWAN +BT	5G+ WWAN +BT	Pmax*	Total Uncertainty dB (k=2)
Bluetooth	Ant 7	15.0	15.0	12.0	15.0	7.0	7.0	18.2	1.2

Body									
Band	Antenna	Standalone	BT+2.4G	BT+5G	BT+ WWAN	2.4G+ WWAN +BT	5G+ WWAN +BT	Pmax*	Total Uncertainty dB (k=2)
Bluetooth	Ant 7	21.0	21.0	15.0	21.0	11.0	11.0	18.2	1.2

Head									
Band	Antenna	Standalone	Simultaneous (2.4G+5G)	Simultaneous (2.4G/5G+BT)	Simultaneous (2.4G/5G+ WWAN)	Simultaneous (2.4G/5G+ WWAN +BT)	Simultaneous (WWAN +2.4G+5G)	Pmax*	Total Uncertainty dB (k=2)
WLAN2.4GHz	7	12.5	12.5	10.5	9.0	7.0	8.0	22.8	1.2
WLAN2.4GHz	12	12.5	12.5	10.5	9.0	7.0	8.0	22.8	1.2
WLAN2.4GHz	7+12	12.5	12.5	10.5	9.0	7.0	8.0	25.8	1.2
WLAN5.2GHz	9	12.5	11.5	12.5	9.0	7.0	8.0	14.8	1.2
WLAN5.2GHz	8	12.5	11.5	12.5	9.0	7.0	8.0	14.8	1.2
WLAN5.2GHz	9+8	12.5	11.5	12.5	9.0	7.0	8.0	17.8	1.2
WLAN5.3GHz	9	12.5	11.5	12.5	9.0	7.0	8.0	15.8	1.2
WLAN5.3GHz	8	12.5	11.5	12.5	9.0	7.0	8.0	15.8	1.2
WLAN5.3GHz	9+8	12.5	11.5	12.5	9.0	7.0	8.0	18.8	1.2
WLAN5.5GHz	9	11.5	10.5	11.5	8.8	6.0	7.5	13.8	1.2
WLAN5.5GHz	8	11.5	10.5	11.5	8.8	6.0	7.5	13.8	1.2
WLAN5.5GHz	9+8	11.5	10.5	11.5	8.8	6.0	7.5	16.8	1.2
WLAN5.8GHz	9	10.5	10.5	10.5	7.0	5.0	7.0	15.8	1.2
WLAN5.8GHz	8	10.5	10.5	10.5	7.0	5.0	7.0	15.8	1.2
WLAN5.8GHz	9+8	10.5	10.5	10.5	7.0	5.0	7.0	18.8	1.2

Body									
Band	Antenna	Standalone	Simultaneous (2.4G+5G)	Simultaneous (2.4G/5G+BT)	Simultaneous (2.4G/5G+ WWAN)	Simultaneous (2.4G/5G+ WWAN +BT)	Simultaneous (WWAN +2.4G+5G)	Pmax*	Total Uncertainty dB (k=2)
WLAN2.4GHz	7	16.5	15.5	14.5	14.5	13.5	13.5	22.8	1.2
WLAN2.4GHz	12	16.5	15.5	14.5	14.5	13.5	13.5	22.8	1.2
WLAN2.4GHz	7+12	16.5	15.5	14.5	14.5	13.5	13.5	25.8	1.2
WLAN5.2GHz	9	21.0	13.5	21.0	13.0	11.5	12.0	14.8	1.2
WLAN5.2GHz	8	21.0	13.5	21.0	13.0	11.5	12.0	14.8	1.2
WLAN5.2GHz	9+8	21.0	13.5	21.0	13.0	11.5	12.0	17.8	1.2
WLAN5.3GHz	9	14.5	13.5	14.5	13.0	11.5	12.0	15.8	1.2
WLAN5.3GHz	8	14.5	13.5	14.5	13.0	11.5	12.0	15.8	1.2
WLAN5.3GHz	9+8	14.5	13.5	14.5	13.0	11.5	12.0	18.8	1.2
WLAN5.5GHz	9	12.0	12.0	12.0	12.0	11.0	11.0	13.8	1.2
WLAN5.5GHz	8	12.0	12.0	12.0	12.0	11.0	11.0	13.8	1.2
WLAN5.5GHz	9+8	12.0	12.0	12.0	12.0	11.0	11.0	16.8	1.2
WLAN5.8GHz	9	12.5	12.5	12.5	12.5	12.0	11.5	15.8	1.2
WLAN5.8GHz	8	12.5	12.5	12.5	12.5	12.0	11.5	15.8	1.2
WLAN5.8GHz	9+8	12.5	12.5	12.5	12.5	12.0	11.5	18.8	1.2

Note: 1) *P_{max} is used for RF tune up procedure. The maximum allowed output power is equal to Pmax + 1.2 dB device uncertainty.
2) All P_{limit} power levels entered in the Table correspond to average power levels after accounting for duty cycle in the case TDD modulation schemes (for e.g., GSM & LTE TDD & NR TDD).
3) The max allowed output power is the Plimit + 1.2 dB device uncertainty, and if Plimit is higher than Pmax, the device output power will be Pmax instead.

6. RF Exposure Limits

6.1 Uncontrolled Environment

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

6.2 Controlled Environment

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

Limits for Occupational/Controlled Exposure (W/kg)

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

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

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

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

7. Specific Absorption Rate (SAR)

7.1 Introduction

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

7.2 SAR Definition

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

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

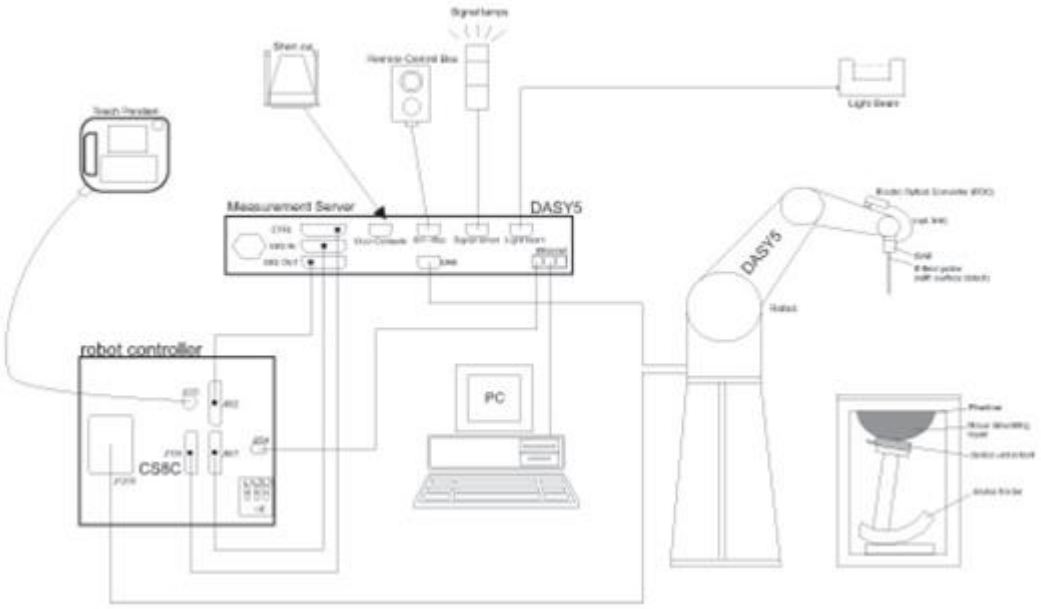
SAR is expressed in units of Watts per kilogram (W/kg)

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

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

8. System Description and Setup

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



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

8.1 E-Field Probe

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

<EX3DV4 Probe>

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

8.2 Data Acquisition Electronics (DAE)

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

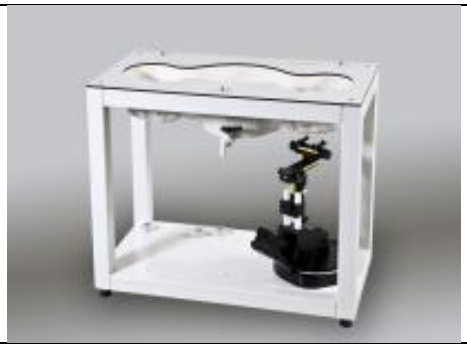
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.

Photo of DAE

8.3 Phantom

<SAM Twin Phantom>

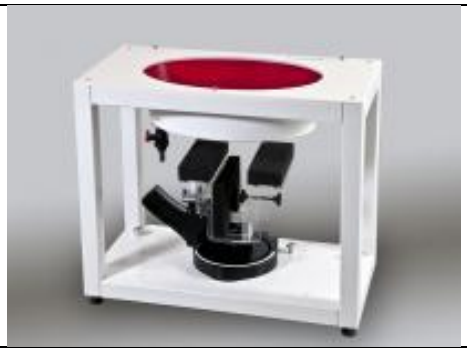
Shell Thickness	2 ± 0.2 mm; Center ear point: 6 ± 0.2 mm
Filling Volume	Approx. 25 liters
Dimensions	Length: 1000 mm; Width: 500 mm; Height: adjustable feet
Measurement Areas	Left Hand, Right Hand, Flat Phantom



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

<ELI Phantom>

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



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

8.4 Device Holder

<Mounting Device for Hand-Held Transmitter>

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

Mounting Device for Hand-Held Transmitters

Mounting Device Adaptor for Wide-Phones

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

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

Mounting Device for Laptops

9. Measurement Procedures

The measurement procedures are as follows:

<Conducted power measurement>

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

<SAR measurement>

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

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

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

9.1 Spatial Peak SAR Evaluation

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

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

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

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

9.2 Power Reference Measurement

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

9.3 Area Scan

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

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

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

9.4 Zoom Scan

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

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

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

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

* When zoom scan is required and the *reported* SAR from the *area scan based 1-g SAR estimation* procedures of KDB 447498 is ≤ 1.4 W/kg, ≤ 8 mm, ≤ 7 mm and ≤ 5 mm zoom scan resolution may be applied, respectively, for 2 GHz to 3 GHz, 3 GHz to 4 GHz and 4 GHz to 6 GHz.

9.5 Volume Scan Procedures

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

9.6 Power Drift Monitoring

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

10. Test Equipment List

Manufacturer	Name of Equipment	Type/Model	Serial Number	Calibration	
				Last Cal.	Due Date
SPEAG	750MHz System Validation Kit	D750V3	1099	Dec. 15, 2021	Dec. 13, 2024
SPEAG	835MHz System Validation Kit	D835V2	4d162	Dec. 17, 2021	Dec. 15, 2024
SPEAG	1750MHz System Validation Kit	D1750V2	1090	Feb. 24, 2022	Feb. 22, 2025
SPEAG	1900MHz System Validation Kit	D1900V2	5d182	Dec. 20, 2021	Dec. 18, 2024
SPEAG	2450MHz System Validation Kit	D2450V2	924	Nov. 03, 2023	Nov. 02, 2026
SPEAG	2600MHz System Validation Kit	D2600V2	1070	Dec. 20, 2021	Dec. 18, 2024
SPEAG	3500MHz System Validation Kit	D3500V2	1037	Nov. 20, 2023	Nov. 19, 2024
SPEAG	3700MHz System Validation Kit	D3700V2	1008	Nov. 20, 2023	Nov. 19, 2024
SPEAG	3900MHz System Validation Kit	D3900V2	1022	Aug. 18, 2022	Aug. 16, 2025
SPEAG	5000MHz System Validation Kit	D5GHzV2	1341	Dec. 13, 2021	Dec. 11, 2024
SPEAG	Data Acquisition Electronics	DAE4	1210	Jan. 15, 2024	Jan. 14, 2025
SPEAG	Dosimetric E-Field Probe	EX3DV4	7577	Dec. 13, 2023	Dec. 12, 2024
SPEAG	SAM Twin Phantom	QD 000 P40 CD	1795	NCR	NCR
SPEAG	Phone Positioner	N/A	N/A	NCR	NCR
Anritsu	Radio communication analyzer	MT8820C	6201341952	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Radio communication analyzer	MT8820C	6201563813	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Radio communication analyzer	MT8821C	6272416837	Apr. 08, 2024	Apr. 07, 2025
Anritsu	Radio communication analyzer	MT8821C	6272416846	Apr. 08, 2024	Apr. 07, 2025
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 16, 2023	Oct. 15, 2024
Keysight	Network Analyzer	E5071C	MY46523671	Oct. 15, 2024	Oct. 14, 2025
Speag	Dielectric Assessment KIT	DAK-3.5	1071	Feb. 19, 2024	Feb. 18, 2025
Agilent	Signal Generator	N5181A	MY50145381	Dec. 28, 2023	Dec. 27, 2024
R&S	Signal Generator	SMB100A	175779	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Power Senor	MA2411B	1306099	Oct. 16, 2023	Oct. 15, 2024
Anritsu	Power Senor	MA2411B	1306099	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Meter	ML2495A	1349001	Oct. 16, 2023	Oct. 15, 2024
Anritsu	Power Meter	ML2495A	1349001	Oct. 15, 2024	Oct. 14, 2025
Anritsu	Power Sensor	MA2411B	1542004	Dec. 28, 2023	Dec. 27, 2024
Anritsu	Power Meter	ML2495A	1339473	Dec. 28, 2023	Dec. 27, 2024
R&S	Power Sensor	NRP50S	101254	Apr. 08, 2024	Apr. 07, 2025
R&S	Power Sensor	NRP8S	109228	Apr. 08, 2024	Apr. 07, 2025
R&S	CBT BLUETOOTH TESTER	CBT	100963	Dec. 28, 2023	Dec. 27, 2024
R&S	Spectrum Analyzer	FSP7	100818	Jul. 04, 2024	Jul. 03, 2025
TES	Hygrometer	1310	200505600	Jul. 08, 2024	Jul. 07, 2025
Anymetre	Thermo-Hygrometer	JR593	2015030903	Jan. 02, 2024	Jan. 01, 2025
SPEAG	Device Holder	N/A	N/A	N/A	N/A
AR	Amplifier	5S1G4	0333096	Note 1	
Mini-Circuits	Amplifier	ZVE-3W-83+	599201528	Note 1	
Mini-Circuits	Amplifier	ZVA-183W-S+	726202215	Note 1	
ARRA	Power Divider	A3200-2	N/A	Note 1	
ET Industries	Dual Directional Coupler	C-058-10	N/A	Note 1	
Jinkexinhua	Attenuator	10db-8G	N/A	Note 1	

Note:

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

11. System Verification

11.1 Tissue Simulating Liquids

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

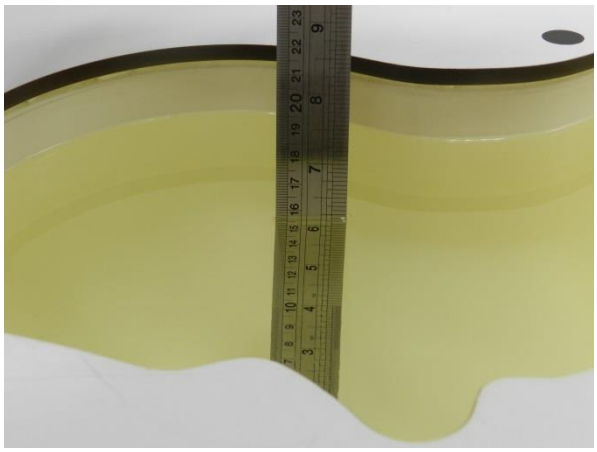


Fig 11.1 Photo of Liquid Height for Head SAR

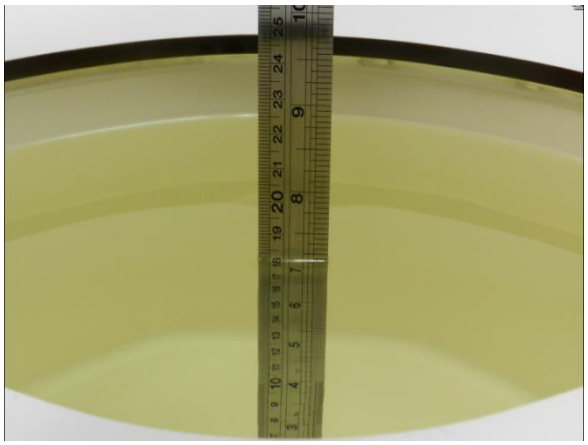


Fig 11.2 Photo of Liquid Height for Body SAR

11.2 Tissue Verification

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

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

Simulating Liquid for 5GHz, Manufactured by SPEAG

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

<Tissue Dielectric Parameter Check Results>

Frequency (MHz)	Tissue Type	Liquid Temp. (℃)	Conductivity (σ)	Permittivity (ε_r)	Conductivity Target (σ)	Permittivity Target (ε_r)	Delta (σ) (%)	Delta (ε_r) (%)	Limit (%)	Date
750	Head	22.5	0.920	43.600	0.89	41.90	3.37	4.06	±5	2024/9/30
835	Head	22.6	0.925	42.207	0.90	41.50	2.78	1.70	±5	2024/10/1
1750	Head	22.4	1.370	41.473	1.37	40.10	0.00	3.42	±5	2024/10/3
1900	Head	22.5	1.428	39.625	1.40	40.00	2.00	-0.94	±5	2024/10/11
2450	Head	22.7	1.850	38.467	1.80	39.20	2.78	-1.87	±5	2024/10/6
2600	Head	22.3	1.908	38.730	1.96	39.00	-2.65	-0.69	±5	2024/10/9
3500	Head	22.4	2.852	37.158	2.91	37.90	-1.99	-1.96	±5	2024/10/8
3700	Head	22.3	3.007	36.904	3.12	37.70	-3.62	-2.11	±5	2024/10/11
3900	Head	22.4	3.259	36.676	3.33	37.51	-2.13	-2.22	±5	2024/10/14
5250	Head	22.2	4.527	35.458	4.71	35.95	-3.89	-1.37	±5	2024/10/12
5600	Head	22.9	4.874	34.973	5.07	35.50	-3.87	-1.48	±5	2024/10/10
5750	Head	22.1	5.024	34.783	5.22	35.35	-3.75	-1.60	±5	2024/10/15
750	Head	22.4	0.901	41.036	0.89	41.90	1.24	-2.06	±5	2024/10/17
835	Head	22.3	0.938	42.864	0.90	41.50	4.22	3.29	±5	2024/10/16
1750	Head	22.2	1.342	39.902	1.37	40.10	-2.04	-0.49	±5	2024/10/16
1900	Head	22.4	1.414	41.126	1.40	40.00	1.00	2.81	±5	2024/10/21
2450	Head	22.2	1.788	40.540	1.80	39.20	-0.67	3.42	±5	2024/10/17
2600	Head	22.3	1.898	37.434	1.96	39.00	-3.16	-4.02	±5	2024/10/19
3500	Head	22.2	2.851	36.434	2.91	37.90	-2.03	-3.87	±5	2024/10/28
3700	Head	22.1	3.003	36.123	3.12	37.70	-3.75	-4.18	±5	2024/10/29
3900	Head	22.4	3.249	35.889	3.33	37.51	-2.43	-4.32	±5	2024/10/25
5250	Head	22.1	4.626	35.710	4.71	35.95	-1.78	-0.67	±5	2024/10/23
5600	Head	22.4	4.971	35.202	5.07	35.50	-1.95	-0.84	±5	2024/10/20
5750	Head	22.2	5.118	34.929	5.22	35.35	-1.95	-1.19	±5	2024/10/31
2450	Head	22.5	1.806	38.585	1.80	39.20	0.33	-1.57	±5	2024/11/12
5750	Head	22.6	5.057	34.653	5.22	35.35	-3.12	-1.97	±5	2024/11/12

11.3 System Performance Check Results

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

<1g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 1g SAR (W/kg)	Targeted 1g SAR (W/kg)	Normalized 1g SAR (W/kg)	Deviation (%)
2024/9/30	750	Head	250	1099	7577	1210	2.200	8.540	8.8	3.04
2024/10/1	835	Head	250	4d162	7577	1210	2.410	9.640	9.64	0.00
2024/10/3	1750	Head	250	1090	7577	1210	8.800	37.000	35.2	-4.86
2024/10/11	1900	Head	250	5d182	7577	1210	9.730	39.600	38.92	-1.72
2024/10/6	2450	Head	250	924	7577	1210	12.800	52.300	51.2	-2.10
2024/10/9	2600	Head	250	1070	7577	1210	13.800	56.200	55.2	-1.78
2024/10/8	3500	Head	100	1037	7577	1210	6.430	65.400	64.3	-1.68
2024/10/11	3700	Head	100	1008	7577	1210	6.600	67.200	66	-1.79
2024/10/14	3900	Head	100	1022	7577	1210	6.730	66.400	67.3	1.36
2024/10/12	5250	Head	100	1341	7577	1210	7.730	80.700	77.3	-4.21
2024/10/10	5600	Head	100	1341	7577	1210	8.410	84.500	84.1	-0.47
2024/10/15	5750	Head	100	1341	7577	1210	7.780	80.600	77.8	-3.47
2024/10/17	750	Head	250	1099	7577	1210	2.190	8.540	8.76	2.58
2024/10/16	835	Head	250	4d162	7577	1210	2.370	9.640	9.48	-1.66
2024/10/16	1750	Head	250	1090	7577	1210	8.700	37.000	34.8	-5.95
2024/10/21	1900	Head	250	5d182	7577	1210	9.610	39.600	38.44	-2.93
2024/10/17	2450	Head	250	924	7577	1210	12.500	52.300	50	-4.40
2024/10/19	2600	Head	250	1070	7577	1210	13.700	56.200	54.8	-2.49
2024/10/28	3500	Head	100	1037	7577	1210	6.330	65.400	63.3	-3.21
2024/10/29	3700	Head	100	1008	7577	1210	6.590	67.200	65.9	-1.93
2024/10/25	3900	Head	100	1022	7577	1210	6.700	66.400	67	0.90
2024/10/23	5250	Head	100	1341	7577	1210	8.090	80.700	80.9	0.25
2024/10/20	5600	Head	100	1341	7577	1210	7.840	84.500	78.4	-7.22
2024/10/31	5750	Head	100	1341	7577	1210	8.140	80.600	81.4	0.99
2024/11/12	2450	Head	250	924	7577	1210	12.600	52.300	50.4	-3.63
2024/11/12	5750	Head	100	1341	7577	1210	8.350	80.600	83.5	3.60

<10g SAR>

Date	Frequency (MHz)	Tissue Type	Input Power (mW)	Dipole S/N	Probe S/N	DAE S/N	Measured 10g SAR (W/kg)	Targeted 10g SAR (W/kg)	Normalized 10g SAR (W/kg)	Deviation (%)
2024/9/30	750	Head	250	1099	7577	1210	1.480	5.650	5.92	4.78
2024/10/1	835	Head	250	4d162	7577	1210	1.530	6.260	6.12	-2.24
2024/10/3	1750	Head	250	1090	7577	1210	4.700	19.500	18.8	-3.59
2024/10/11	1900	Head	250	5d182	7577	1210	5.050	20.200	20.2	0.00
2024/10/6	2450	Head	250	924	7577	1210	5.870	24.500	23.48	-4.16
2024/10/9	2600	Head	250	1070	7577	1210	6.250	24.600	25	1.63
2024/10/8	3500	Head	100	1037	7577	1210	2.560	24.700	25.6	3.64
2024/10/11	3700	Head	100	1008	7577	1210	2.410	24.400	24.1	-1.23
2024/10/14	3900	Head	100	1022	7577	1210	2.370	23.700	23.7	0.00
2024/10/12	5250	Head	100	1341	7577	1210	2.250	23.100	22.5	-2.60
2024/10/10	5600	Head	100	1341	7577	1210	2.420	24.000	24.2	0.83
2024/10/15	5750	Head	100	1341	7577	1210	2.190	22.700	21.9	-3.52
2024/10/17	750	Head	250	1099	7577	1210	1.470	5.650	5.88	4.07
2024/10/16	835	Head	250	4d162	7577	1210	1.560	6.260	6.24	-0.32
2024/10/16	1750	Head	250	1090	7577	1210	4.680	19.500	18.72	-4.00
2024/10/21	1900	Head	250	5d182	7577	1210	4.910	20.200	19.64	-2.77
2024/10/17	2450	Head	250	924	7577	1210	6.050	24.500	24.2	-1.22
2024/10/19	2600	Head	250	1070	7577	1210	6.100	24.600	24.4	-0.81
2024/10/28	3500	Head	100	1037	7577	1210	2.360	24.700	23.6	-4.45
2024/10/29	3700	Head	100	1008	7577	1210	2.490	24.400	24.9	2.05
2024/10/25	3900	Head	100	1022	7577	1210	2.360	23.700	23.6	-0.42
2024/10/23	5250	Head	100	1341	7577	1210	2.270	23.100	22.7	-1.73
2024/10/20	5600	Head	100	1341	7577	1210	2.220	24.000	22.2	-7.50
2024/10/31	5750	Head	100	1341	7577	1210	2.340	22.700	23.4	3.08
2024/11/12	2450	Head	250	924	7577	1210	5.780	24.500	23.12	-5.63
2024/11/12	5750	Head	100	1341	7577	1210	2.320	22.700	23.2	2.20

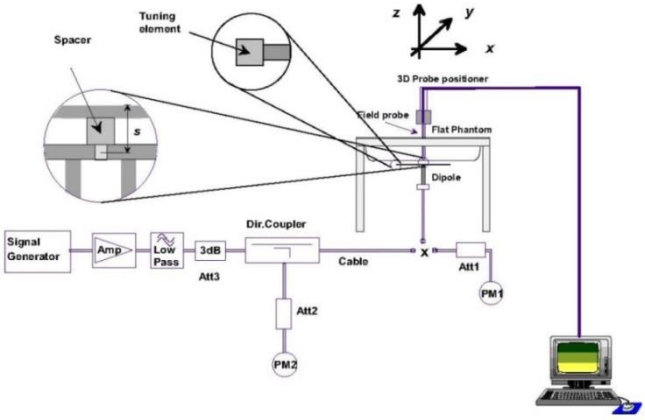


Fig 11.3.1 System Performance Check Setup

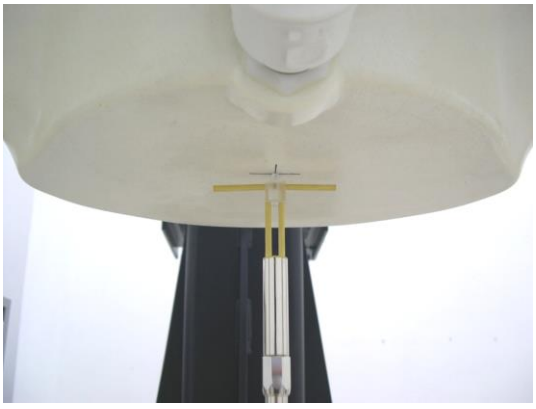


Fig 11.3.2 Setup Photo

12. RF Exposure Positions

12.1 Ear and handset reference point

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

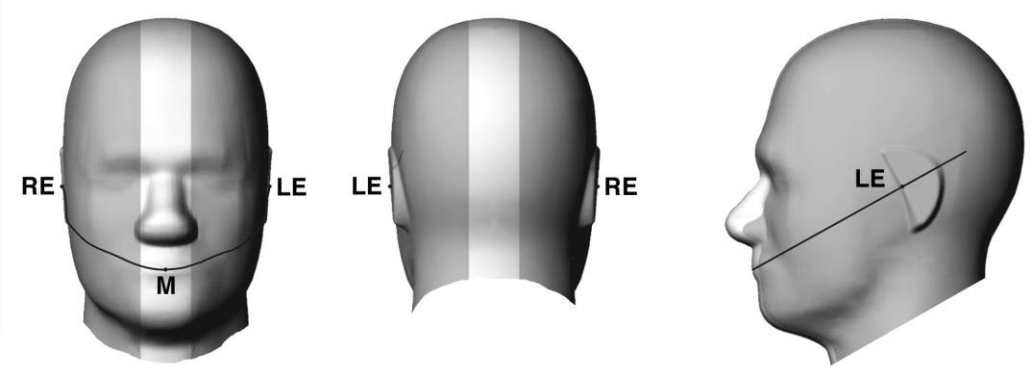


Fig 12.1.1 Front, back, and side views of SAM twin phantom

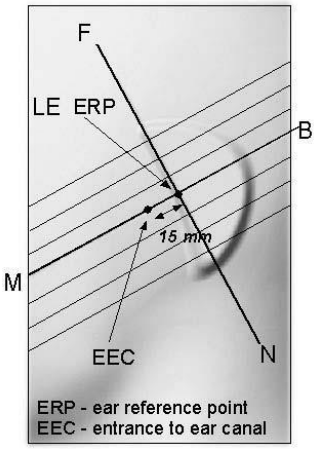


Fig 12.1.2 Close-up side view of phantom showing the ear region.

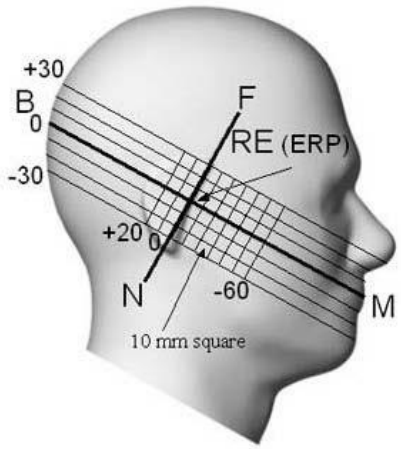


Fig 12.1.3 Side view of the phantom showing relevant markings and seven cross-sectional plane locations

12.2 Definition of the cheek position

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

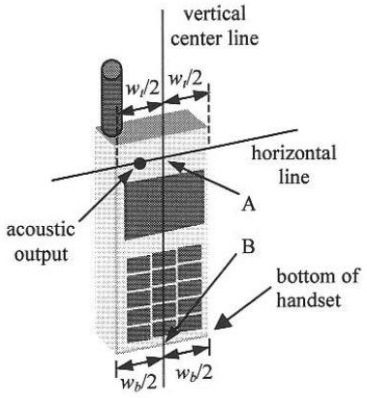


Fig 12.2.1 Handset vertical and horizontal reference lines—"fixed case

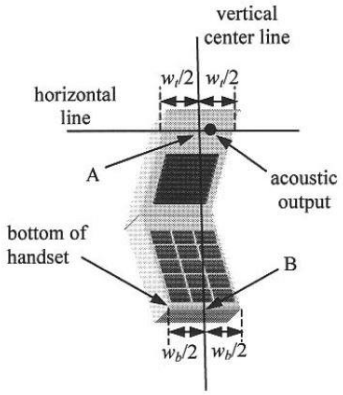


Fig 12.2.2 Handset vertical and horizontal reference lines—"clam-shell case"

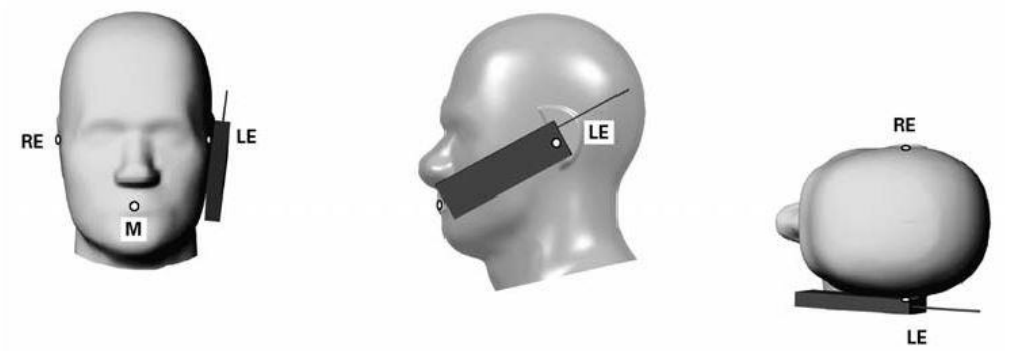


Fig 12.2.3 cheek or touch position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which establish the Reference Plane for handset positioning, are indicated.

12.3 Definition of the tilt position

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

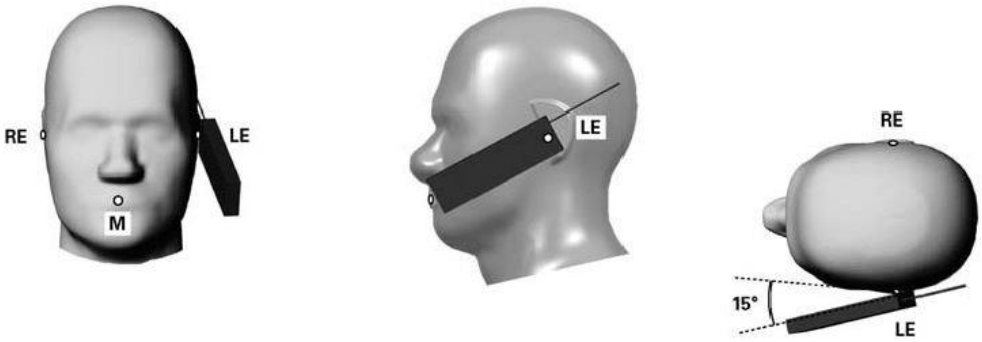


Fig 12.3.1 Tilt position. The reference points for the right ear (RE), left ear (LE), and mouth (M), which define the Reference Plane for handset positioning, are indicated.

12.4 Body Worn Accessory

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

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

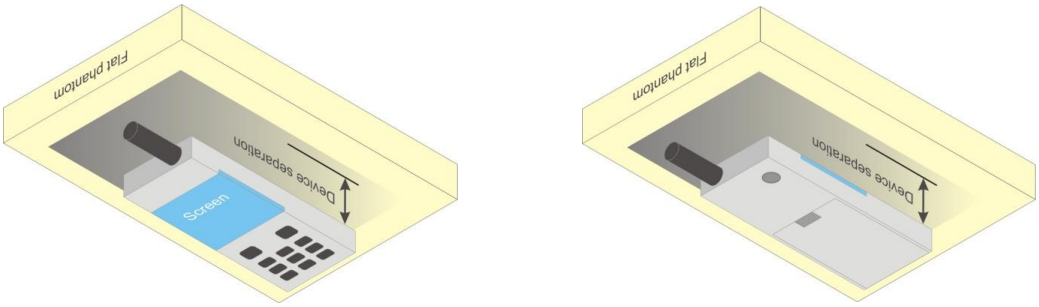


Fig 12.4 Body Worn Position

12.5 Product Specific 10g SAR Exposure

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

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

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

12.6 Wireless Router

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

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

13. Conducted RF Output Power (Unit: dBm)

The detailed conducted power table can refer to Appendix E.

<GSM Conducted Power>

1. Per KDB 447498 D01, the maximum output power channel is used for SAR testing and for further SAR test reduction.
2. Per KDB 941225 D01v03r01, for SAR test reduction for GSM / GPRS / EDGE modes is determined by the source-based time-averaged output power including tune-up tolerance. The mode with highest specified time-averaged output power should be tested for SAR compliance in the applicable exposure conditions. For modes with the same specified maximum output power and tolerance, the higher number time-slot configuration should be tested.
3. Other configurations of GSM / GPRS / EDGE are considered as secondary modes. The 3G SAR test reduction procedure is applied, when the maximum output power and tune-up tolerance specified for production units in a secondary mode is ≤ ¼ dB higher than the primary mode, SAR measurement is not required for the secondary mode.

<WCDMA Conducted Power>

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

A summary of these settings are illustrated below:

HSDPA Setup Configuration:

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

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

Sub-test	β_c	β_d	β_d (SF)	β_c/β_d	β_{HS} (Note1, Note 2)	CM (dB) (Note 3)	MPR (dB) (Note 3)
1	2/15	15/15	64	2/15	4/15	0.0	0.0
2	12/15 (Note 4)	15/15 (Note 4)	64	12/15 (Note 4)	24/15	1.0	0.0
3	15/15	8/15	64	15/8	30/15	1.5	0.5
4	15/15	4/15	64	15/4	30/15	1.5	0.5

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

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

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

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

Setup Configuration

HSUPA Setup Configuration:

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

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

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

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

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

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

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

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

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

Setup Configuration

DC-HSDPA 3GPP release 8 Setup Configuration:

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

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

C.8.1.12 Fixed Reference Channel Definition H-Set 12

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

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

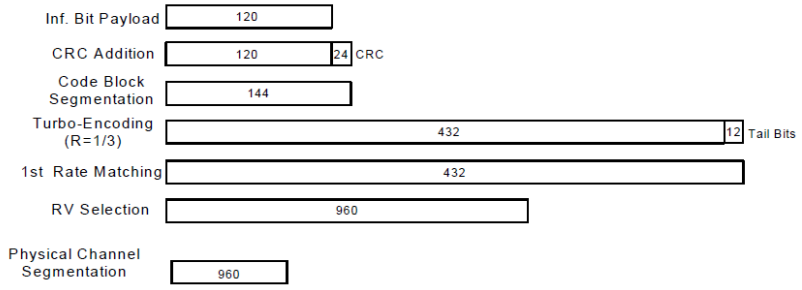


Figure C.8.19: Coding rate for Fixed reference Channel H-Set 12 (QPSK)

Setup Configuration

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

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

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

Sub-test	β_c (Note3)	β_d	β_{HS} (Note1)	β_{ec}	β_{ed} (2xSF2) (Note 4)	β_{ed} (2xSF4) (Note 4)	CM (dB) (Note 2)	MPR (dB) (Note 2)	AG Index (Note 4)	E-TFCI (Note 5)	E-TFCI (boost)
1	1	0	30/15	30/15	$\beta_{ed}1$: 30/15 $\beta_{ed}2$: 30/15	$\beta_{ed}3$: 24/15 $\beta_{ed}4$: 24/15	3.5	2.5	14	105	105

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

Setup Configuration

<WCDMA Conducted Power>

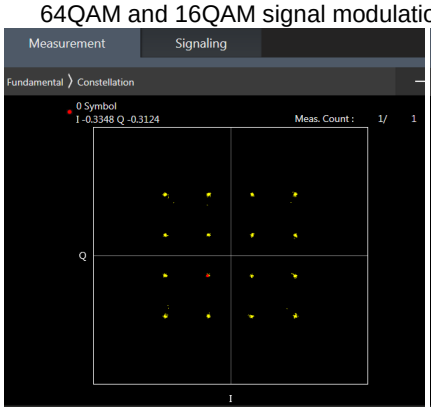
General Note:

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

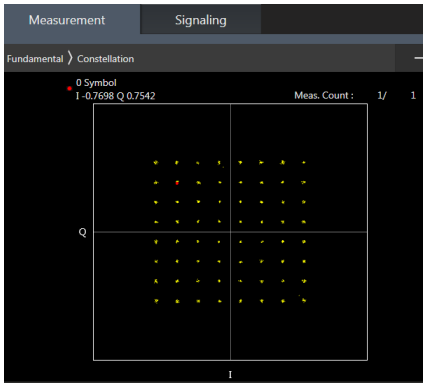
<LTE Conducted Power>

General Note:

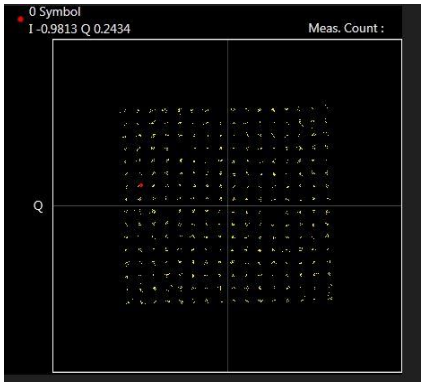
1. Anritsu MT8820C base station simulator was used to setup the connection with EUT; the frequency band, channel bandwidth, RB allocation configuration, modulation type are set in the base station simulator to configure EUT transmitting at maximum power and at different configurations which are requested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



16QAM



64QAM



256QAM

<TDD LTE SAR Measurement>

TDD LTE configuration setup for SAR measurement

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

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

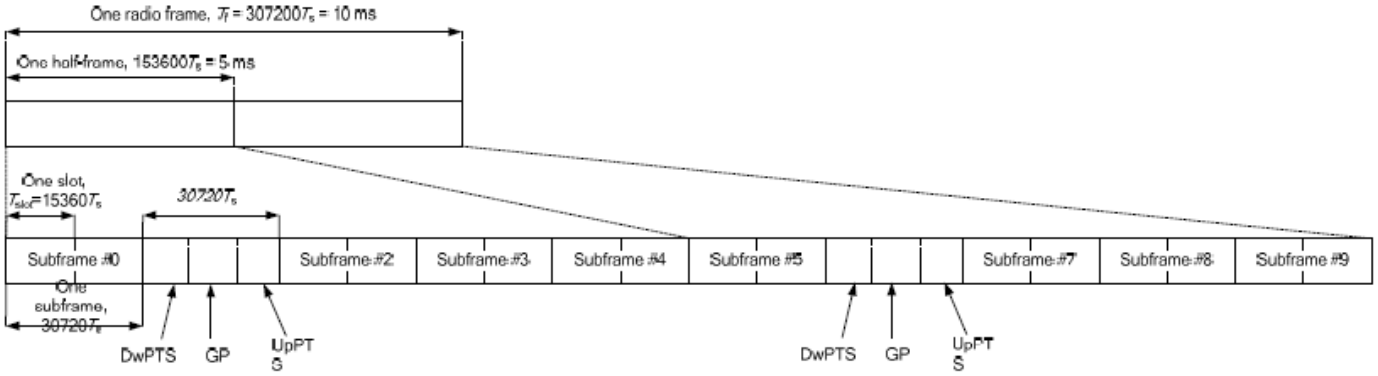


Figure 4.2-1: Frame structure type 2 (for 5 ms switch-point periodicity).

Table 4.2-2: Uplink-downlink configurations.

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

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

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

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

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

The highest duty factor is resulted from:

For LTE TDD Power class 2

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

For LTE TDD Power class 3

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

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

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

<LTE Carrier Aggregation>

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

General Note:

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

2CC Downlink Carrier Aggregation				3CC Downlink Carrier Aggregation				4CC Downlink Carrier Aggregation			
Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset	Number	Combination	4X4 MIMO	Covered by Measurement Superset
1	2A-2A		3CC-1	1	2A-2A-7A			1	2A-2A-4A-5A		
2	2A-4A		3CC-2	2	2A-4A-5A		4CC-1	2	5A-7A-66A-66A	66A-66A	
3	2A-5A		3CC-3	3	2A-5A-7A			3	5A-7C-66A	7C	
4	2A-7A		3CC-3	4	2A-5A-66A			4	41A-41A-41C	41A-41A	
5	2A-26A			5	2A-7A-7A			5	41A-41D	41A	
6	2A-66A		3CC-4	6	2A-7A-38A			6	7C-66A-66A	66A-66A	
7	4A-4A	4A,4A-4A	3CC-8	7	2A-7C			7	41C-41C	41C	
8	4A-5A	4A	3CC-8	8	4A-4A-5A	4A-4A		8	41E		
9	4A-7A	4A,7A	3CC-9	9	4A-4A-7A	4A-4A		9			
10	5A-5A			10	4A-5A-7A	4A		10			
11	5A-7A	7A	3CC-12	11	4A-7C	4A,7C		11			
12	5A-66A	66A	3CC-14	12	5A-7A-7A	7A-7A		12			
13	7A-7A	7A,7A-7A	3CC-5	13	5A-7A-66A	7A	4CC-2	13			
14	7A-26A	7A		14	5A-66A-66A	66A-66A	4CC-2	14			
15	7A-66A	7A,66A	3CC-13	15	5A-7C	7C	4CC-3	15			
16	41A-41A	41A-41A	4CC-4	16	5A-66C	66C		16			
17	66A-66A	66A,66A-66A	3CC-18	17	7A-7A-66A	7A-7A		17			
18	5B			18	7A-66A-66A	66A-66A	4CC-2	18			
19	2C		3CC-21	19	41A-41A-41A	41A-41A-41A		19			
20	7C	7C	3CC-22	20	41A-41C	41A-41C	4CC-4	20			
21	38C	38C		21	2C-7A			21			
22	41C	41C	3CC-20	22	2C-66A			22			
23	66C	66C	3CC-16	23	7C-66A	7C	4CC-6	23			
24	2A-38A		3CC-6	24	41D	41D	4CC-5	24			

LTE Carrier Aggregation Conducted Power (Downlink)

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

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

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

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

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

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

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

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

LTE 4x4 MIMO (Downlink)

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

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

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

LTE Carrier Aggregation Conducted Power (Uplink)

Intra-band CA	Ant			
7C	Ant 5	Ant 6	Ant 11	Ant 7
38C	Ant 5	Ant 6	Ant 11	Ant 7

<Intra-band>

General Note:

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

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

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

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

<Inter-band>

LTE Inter CA	LTE Band	Ant
CA_2A-4A	LTE Band 2	Ant 5/6
	LTE Band 4	Ant 5/6/11/7
CA_2A-7A	LTE Band 2	Ant 5/6
	LTE Band 7	Ant 5/6/11/7
CA_2A-66A	LTE Band 2	Ant 5/6
	LTE Band 66	Ant 5/6/11/7
CA_4A-5A	LTE Band 5	Ant 1/0
	LTE Band 66	Ant 5/6/11/7
CA_4A-7A	LTE Band 4	Ant 5/6/11/7
	LTE Band 7	Ant 5/6/11/7
CA_5A-7A	LTE Band 5	Ant 1/0
	LTE Band 7	Ant 5/6/11/7
CA_5A-66A	LTE Band 5	Ant 1/0
	LTE Band 66	Ant 5/6/11/7
CA_7A-66A	LTE Band 7	Ant 5/6/11/7
	LTE Band 66	Ant 5/6/11/7

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. 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, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using standalone LTE SAR mode.

5G NR Output Power (Unit: dBm)

General Note:

1. 5G NR n2/n5/n7/n12/n26 /n66 /n38/n41 /n77/n78 is SA mode.
2. 5G NR n5/n7/n66/n38/n41/n77/n78 is NSA mode.
3. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. For DFT-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, the CP-OFDM mode will not higher than DFT-OFDM mode, therefore, similar FCC KDB 941225 D05 procedure for other modulation output power for each RB allocation configuration is > not ½ dB higher than the same configuration in DFT-s QPSK and the reported SAR for the DFT-s QPSK configuration is ≤ 1.45 W/kg; CP-OFDM testing is not required.
   b. For DFT-OFDM output power measurement reduction, according to 38.101 maximum power reduction for power class2 and 3, for 16QAM/64QAM/256QAM and smaller bandwidth output power will spot check largest channel bandwidth worst RB configuration to ensure the 16QAM/64QAM/256QAM and smaller bandwidth output power will not ½ dB higher than the same configuration in the largest supported bandwidth.
   c. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel
   d. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   e. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested
   f. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   g. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
4. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
5. NSA and SA mode should perform SAR separately. For the maximum power of NSA mode is the same as SA total power level, so SA SAR can represent NSA mode SAR.
6. 5GNR NSA mode, the power level is the same as 5GNR SA mode, so 5GNR NSA mode and SA mode power table only show one time.
7. 5G NR supports CP-OFDM and DFT-s-OFDM modulation, for DFT-s-OFDM power is higher than CP-OFDM, so only show DFT-s-OFDM power table and chose DFT-s-OFDM to perform SAR testing.
8. For DFT-s-OFDM and CP-OFDM output power measurement reduction, according to 38.101 maximum power reduction for the CP-OFDM mode will not higher than DFT-s-OFDM mode, therefore, CP-OFDM measurement is unnecessary.
9. This device supports HPUE mode for 5GNR n41 /n78 with higher power, so HPUE mode was chosen to perform full SAR testing and HPUE SAR can represent power class 3 level SAR.
10. For NR inter-band ULCA mode, MediaTek's TA-SAR algorithm in WWAN adds directly the time-averaged RF exposure between two NR bands. TA-SAR algorithm controls the total RF exposure base on NR inter band ULCA bands to not exceed FCC limit.

<3GPP 38.101 MPR for EN-DC>

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

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

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

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

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

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

<EN-DC combination>

ENDC	Band	Ant	ENDC	Band	Ant	ENDC	Band	Ant
DC_7A-n5A	LTE Band 7	Ant 5/6/11/7	DC_66A-n66A	LTE Band 66	Ant 5/6/11/7	DC_7A-n77A	LTE Band 7	Ant 5/6/11/7
	FR1 n5	Ant 1/0		FR1 n66	Ant 5/6/11/7		FR1 n77	Ant 9/8/6/0
DC_66A-n5A	LTE Band 66	Ant 5/6/11/7	DC_2A-n38A	LTE Band 2	Ant 5/11			
	FR1 n5	Ant 1/0		FR1 n38	Ant 6/7			
DC_2A-n7A	LTE Band 2	Ant 5/11	DC_4A-n38A	LTE Band 4	Ant 5/11			
	FR1 n7	Ant 6/7		FR1 n38	Ant 6/7			
DC_4A-n7A	LTE Band 4	Ant 5/11	DC_5A-n38A	LTE Band 5	Ant 1/0	DC_41A-n77A	LTE Band 41	Ant 5/6/11/7
	FR1 n7	Ant 6/7		FR1 n38	Ant 5/6/11/7		FR1 n77	Ant 9/8/6/0
DC_5A-n7A	LTE Band 5	Ant 1/0	DC_8A-n38A	LTE Band 8	Ant 1/0	DC_2A-n78A	LTE Band 2	Ant 5/6/11/7
	FR1 n7	Ant 5/6/11/7		FR1 n38	Ant 5/6/11/7		FR1 n78	Ant 9/8/6/0
DC_7A-n7A	LTE Band 7	Ant 5/11				DC_4A-n78A	LTE Band 4	Ant 5/6/11/7
	FR1 n7	Ant 6/7					FR1 n78	Ant 9/8/6/0
			DC_66A-n38A	LTE Band 66	Ant 5/6/11/7	DC_5A-n78A	LTE Band 5	Ant 1/0
				FR1 n38	Ant 5/6/11/7		FR1 n78	Ant 9/8/6/0
DC_28A-n7A	LTE Band 28	Ant 1/0	DC_2A-n41A	LTE Band 2	Ant 5/11	DC_7A-n78A	LTE Band 7	Ant 5/6/11/7
	FR1 n7	Ant 5/6/11/7		FR1 n41	Ant 6/7		FR1 n78	Ant 9/8/6/0
DC_66A-n7A	LTE Band 66	Ant 5/11	DC_4A-n41A	LTE Band 4	Ant 5/6/11/7			
	FR1 n7	Ant 6/7		FR1 n41	Ant 5/6/11/7			
DC_2A-n66A	LTE Band 2	Ant 5/11				DC_26A-n78A	LTE Band 26	Ant 1/0
	FR1 n66	Ant 6/7					FR1 n78	Ant 9/8/6/0
DC_4A-n66A	LTE Band 4	Ant 5/11	DC_26A-n41A	LTE Band 26	Ant 1/0			
	FR1 n66	Ant 6/7		FR1 n41	Ant 5/6/11/7			
DC_5A-n66A	LTE Band 5	Ant 1/0				DC_38A-n78A	LTE Band 38	Ant 5/6/11/7
	FR1 n66	Ant 5/6/11/7					FR1 n78	Ant 9/8/6/0
DC_7A-n66A	LTE Band 7	Ant 5/11	DC_41A-n41A	LTE Band 41	Ant 5/6/11/7	DC_41A-n78A	LTE Band 41	Ant 5/6/11/7
	FR1 n66	Ant 6/7		FR1 n41	Ant 5/6/11/7		FR1 n78	Ant 9/8/6/0

DC_12A-n66A	LTE Band 12	Ant 1/0	DC_66A-n41A	LTE Band 66	Ant 5/6/11/7	DC_66A-n78A	LTE Band 66	Ant 5/6/11/7
	FR1 n66	Ant 5/6/11/7		FR1 n41	Ant 5/6/11/7		FR1 n78	Ant 9/8/6/0
DC_28A-n66A	LTE Band 12	Ant 1/0						
	FR1 n66	Ant 5/6/11/7						

<Inter-Band CA Configuration>

NR Inter CA	NR Band	Ant
CA_n5A-n78A	FR1 n5	Ant 1/0
	FR1 n78	Ant 9/8/6/0
CA_n7A-n78A	FR1 n7	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0
CA_n41A-n78A	FR1 n41	Ant 5/6/11/7
	FR1 n78	Ant 9/8/6/0

<WLAN Conducted Power>

General Note:

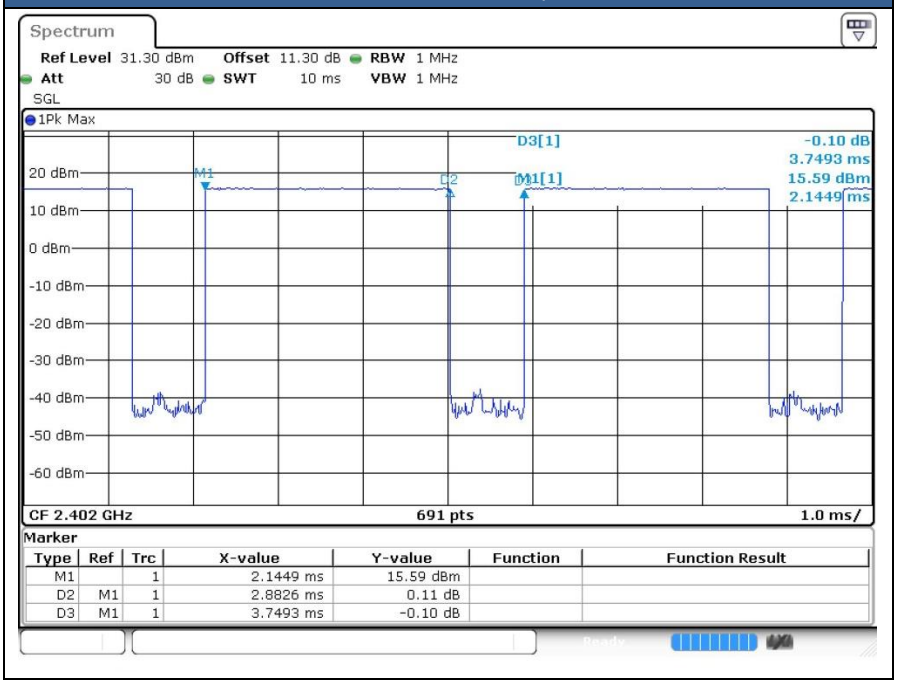
1. The maximum output power specified for production units are determined for all applicable 802.11 transmission modes in each standalone and aggregated frequency band. Maximum output power is measured for the highest maximum output power configuration(s) in each frequency band according to the default power measurement procedures. For "Not required", SAR Test reduction was applied from KDB 248227 guidance, Sec. 2.1, b), 1) when the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel in the initial test configuration. Additional output power measurements were not necessary.
2. Per KDB 248227 D01v02r02, SAR test reduction is determined according to 802.11 transmission mode configurations and certain exposure conditions with multiple test positions. In the 2.4 GHz band, separate SAR procedures are applied to DSSS and OFDM configurations to simplify DSSS test requirements. For OFDM, in both 2.4 and 5 GHz bands, an initial test configuration must be determined for each standalone and aggregated frequency band, according to the transmission mode configuration with the highest maximum output power specified for production units to perform SAR measurements. If the same highest maximum output power applies to different combinations of channel bandwidths, modulations and data rates, additional procedures are applied to determine which test configurations require SAR measurement. When applicable, an initial test position may be applied to reduce the number of SAR measurements required for next to the ear, UMPC mini-tablet or hotspot mode configurations with multiple test positions.
3. For 2.4 GHz 802.11b DSSS, either the initial test position procedure for multiple exposure test positions or the DSSS procedure for fixed exposure position is applied; these are mutually exclusive. For 2.4 GHz and 5 GHz OFDM configurations, the initial test configuration is applied to measure SAR using either the initial test position procedure for multiple exposure test position configurations or the initial test configuration procedures for fixed exposure test conditions. Based on the reported SAR of the measured configurations and maximum output power of the transmission mode configurations that are not included in the initial test configuration, the subsequent test configuration and initial test position procedures are applied to determine if SAR measurements are required for the remaining OFDM transmission configurations. In general, the number of test channels that require SAR measurement is minimized based on maximum output power measured for the test sample(s).
4. For OFDM transmission configurations in the 2.4 GHz and 5 GHz bands, When the same maximum power is specified for multiple transmission modes in a frequency band, the largest channel bandwidth, lowest order modulation, lowest data rate and lowest order 802.11a/g/n/ac mode is used for SAR measurement, on the highest measured output power channel for each frequency band.
5. DSSS and OFDM configurations are considered separately according to the required SAR procedures. SAR is measured in the initial test position using the 802.11 transmission mode configuration required by the DSSS procedure or initial test configuration and subsequent test configuration(s) according to the OFDM procedures.18 The initial test position procedure is described in the following:
   a. When the reported SAR of the initial test position is ≤ 0.4 W/kg, further SAR measurement is not required for the other test positions in that exposure configuration and 802.11 transmission mode combinations within the frequency band or aggregated band.
   b. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
   c. For all positions/configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions/configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
6. The 2.4GHz/5GHz WLAN can transmit in SISO/MIMO antenna mode.
7. 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.
8. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, we tested the WLAN SISO antenna.
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 76.88% as following figure, according to Oct. 2016 TCB workshop for Bluetooth SAR scaling need further consideration and the maximum duty cycle is 100%, therefore the actual duty cycle will be scaled up to100% for Bluetooth reported SAR calculation

Bluetooth time-domain plot



14. Antenna Location

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

15. SAR Test Results

General Note:

1. Per KDB 447498 D01v06, the reported SAR is the measured SAR value adjusted for maximum tune-up tolerance.
   a. Tune-up scaling Factor = tune-up limit power (mW) / EUT RF power (mW), where tune-up limit is the maximum rated power among all production units.
   b. For SAR testing of WLAN/Bluetooth signal with non-100% duty cycle, the measured SAR is scaled-up by the duty cycle scaling factor which is equal to "1/(duty cycle)"
   c. For WWAN: Reported SAR(W/kg)= Measured SAR(W/kg)*Tune-up Scaling Factor
   d. For BT/WLAN: Reported SAR(W/kg)= Measured SAR(W/kg)* Duty Cycle scaling factor * Tune-up scaling factor
   e. For TDD LTE SAR measurement of power class 3, the duty cycle 1:1.59 (62.9 %) was used perform testing and considering the theoretical duty cycle of 63.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 62.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 63.3%/62.9% = 1.006 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = Measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
   f. For TDD LTE SAR measurement of power class 2, the duty cycle 1:2.33 (42.9 %) was used perform testing and considering the theoretical duty cycle of 43.3% for extended cyclic prefix in the uplink, and the theoretical duty cycle of 42.9% for normal cyclic prefix in uplink, a scaling factor of extended cyclic prefix 43.3%/42.9% = 1.009 is applied to scale-up the measured SAR result. The reported TDD LTE SAR (W/kg) = measured SAR (W/kg)* Tune-up Scaling Factor* scaling factor for extended cyclic prefix.
2. Per KDB 447498 D01v06, for each exposure position, testing of other required channels within the operating mode of a frequency band is not required when the *reported* 1-g or 10-g SAR for the mid-band or highest output power channel is:
   - ≤ 0.8 W/kg or 2.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≤ 100 MHz
   - ≤ 0.6 W/kg or 1.5 W/kg, for 1-g or 10-g respectively, when the transmission band is between 100 MHz and 200 MHz
   - ≤ 0.4 W/kg or 1.0 W/kg, for 1-g or 10-g respectively, when the transmission band is ≥ 200 MHz
3. Per KDB 865664 D01v01r04, for each frequency band, repeated SAR measurement is required when the measured SAR is ≥ 0.8W/kg. Per KDB 865664 D01v01r04, if the extremity repeated SAR is necessary, the same procedures should be adapted for measurements according to extremity and occupational exposure limits by applying a factor of 2.5 for extremity exposure and a factor of 5 for occupational exposure to the corresponding SAR thresholds.
4. The device implements receiver detect mechanism trigger reduced power for the power management 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. And the device will invoke corresponding work scenarios power level base on frequency bands/antennas, which can refer to power table at appendix E.
5. For WLAN/BT when transmit simultaneously with each other, or when transmit simultaneously with WWAN/BT, the device power will be reduced power at head, body-worn, hotspot and extremity conditions.
6. For 5G NR test, using FTM (Factory Test Mode) to perform SAR with default 100% transmission.
7. 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. WLAN 5.3/5.5GHz tested the product specific 10g SAR since it has no hotspot mode.
   b. 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.
8. According to Nov. 2017 TCB workshop, when the reported 1gSAR for UL CA configuration is <1.2 W/kg, UL CA 1gSAR is not required for all required test channels (PCC based).
9. SAR is not required because the distance from the antenna to the edge is > 25 mm as per KDB 941225 D06 Hotspot SAR.
10. For Phablet devices, when hotspot mode is not supported, Product specific 10-g SAR is required for all surfaces and edges with an antenna located at ≤ 25mm from that surface or edge in direct contact with a flat phantom, to address interactive hand use exposure conditions.

GSM Note:

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

WCDMA Note:

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

LTE Note:

1. Per KDB 941225 D05v02r05, start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
2. Per KDB 941225 D05v02r05, 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure.
3. Per KDB 941225 D05v02r05, for QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
4. Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM output power for each RB allocation configuration is > not ½ dB higher than the same configuration in QPSK and the reported SAR for the QPSK configuration is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, 16QAM/64QAM/256QAM SAR testing is not required.
5. Per KDB 941225 D05v02r05, smaller bandwidth output power for each RB allocation configuration is > not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg; Per KDB 941225 D05v02r05, smaller bandwidth SAR testing is not required.
6. For LTE B4 / B5 / B12 / B17 / B26 / B38 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.

5G NR Note:

1. For 5G NR test procedure was following step similar FCC KDB 941225 D05:
   a. SAR testing start with the largest channel bandwidth and measure SAR for QPSK with 1 RB allocation, using the RB offset and required test channel combination with the highest maximum output power for RB offsets at the upper edge, middle and lower edge of each required test channel.
   b. 50% RB allocation for QPSK SAR testing follows 1RB QPSK allocation procedure
   c. QPSK with 100% RB allocation, SAR is not required when the highest maximum output power for 100 % RB allocation is less than the highest maximum output power in 50% and 1 RB allocations and the highest reported SAR for 1 RB and 50% RB allocation are ≤ 0.8 W/kg. Otherwise, SAR is measured for the highest output power channel; and if the reported SAR is > 1.45 W/kg, the remaining required test channels must also be tested.
   d. PI/2 BPSK/16QAM/64QAM/256QAM output powers according to 3GPP MPR will not ½ dB higher than the same configuration in QPSK, also reported SAR for the QPSK configuration is less than 1.45 W/kg, PI/2 BPSK /16QAM/64QAM/256QAM SAR testing are not required.
   e. Smaller bandwidth output power for each RB allocation configuration for this device will not ½ dB higher than the same configuration in the largest supported bandwidth, and the reported SAR for the largest supported bandwidth is ≤ 1.45 W/kg, smaller bandwidth SAR testing is not required for this device
   f. For 5G FR1 n2/n5/n7/n12 /n66/n38/n41/n77 the maximum bandwidth does not support three non-overlapping channels, when a device supports overlapping channel assignment in a channel bandwidth configuration, the middle channel of the group of overlapping channels should be selected for testing.

WLAN/Bluetooth Note:

1. Per KDB 248227 D01v02r02, for 2.4GHz 802.11g/n SAR testing is not required when the highest reported SAR for DSSS is adjusted by the ratio of OFDM to DSSS specified maximum output power and the adjusted SAR is ≤ 1.2 W/kg.
2. Per KDB 248227 D01v02r02, U-NII-1 SAR testing is not required when the U-NII-2A band highest reported SAR for a test configuration is ≤ 1.2 W/kg, SAR is not required for U-NII-1 band.
3. When the reported SAR of the test position is > 0.4 W/kg, SAR is repeated for the 802.11 transmission mode configuration tested in the initial test position to measure the subsequent next closet/smallest test separation distance and maximum coupling test position on the highest maximum output power channel, until the report SAR is ≤ 0.8 W/kg or all required test position are tested.
4. For all positions / configurations, when the reported SAR is > 0.8 W/kg, SAR is measured for these test positions / configurations on the subsequent next highest measured output power channel(s) until the reported SAR is ≤ 1.2 W/kg or all required channels are tested.
5. During SAR testing the WLAN transmission was verified using a spectrum analyzer.
6. 802.11ax supports full tone size and partial tone size, after verification for the partial tone size mode power level will not higher than full tone size power level, so chose full tone power to be measured in this report.
7. The 2.4GHz/5GHz WLAN can transmit in SISO/MIMO antenna mode.
8. SISO and MIMO all supported by WLAN2.4GHz/WLAN5GHz, for SISO mode power is less than per chain power of MIMO mode. For WLAN SISO & MIMO mode, the whole testing has assessed only MIMO mode by referring to their higher conducted power, so only chose MIMO mode to perform SAR testing. However, in order to do SISO simultaneous transmission, we tested the WLAN SISO antenna.

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 Pmax power, When Plimit power higher than Pmax power, the output power will be limited at Pmax, and so the SAR will use Pmax power to do the testing.

Exposure Condition	ECI	Trigger conditions
Head SAR-Standalone	ECI 5	Receiver on
Head SAR- Simultaneous	ECI 10	Receiver on + WLAN/BT
Body worn/Extremity SAR-Standalone	ECI 3	Receiver off
Hotspot Body worn/Extremity SAR- Simultaneous	ECI 8	Receiver off + WLAN/BT

15.1 Head SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
750 MHz																					
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	19.15	19.80	1.161	-	-	-0.19	0.122	0.142
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	19.15	19.80	1.161	-	-	-0.19	0.008	0.009
01	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	19.15	19.80	1.161	-	-	-0.02	0.158	**0.184**
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	19.15	19.80	1.161	-	-	-0.08	0.013	0.015
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	19.10	19.80	1.175	-	-	-0.01	0.118	0.139
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	19.10	19.80	1.175	-	-	0.07	0.007	0.008
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 5	23095	707.5	1	19.10	19.80	1.175	-	-	-0.18	0.150	0.176
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 5	23095	707.5	1	19.10	19.80	1.175	-	-	-0.19	0.012	0.014
	LTE Band 12	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	23.11	23.80	1.172	-	-	0.19	0.107	0.125
	LTE Band 12	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	23.11	23.80	1.172	-	-	-0.1	0.062	0.073
	LTE Band 12	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	23.11	23.80	1.172	-	-	0.05	0.091	0.107
	LTE Band 12	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	23.11	23.80	1.172	-	-	-0.04	0.053	0.062
	LTE Band 12	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	22.90	23.80	1.230	-	-	-0.09	0.093	0.114
	LTE Band 12	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	22.90	23.80	1.230	-	-	-0.15	0.055	0.068
	LTE Band 12	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 5	23095	707.5	1	22.90	23.80	1.230	-	-	0.1	0.080	0.098
	LTE Band 12	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 5	23095	707.5	1	22.90	23.80	1.230	-	-	0.06	0.047	0.058
	LTE Band 17	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23790	710	1	20.25	20.80	1.135	-	-	-0.19	0.261	0.296
	LTE Band 17	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23790	710	1	20.25	20.80	1.135	-	-	0.12	0.000	0.000
02	LTE Band 17	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23790	710	1	20.25	20.80	1.135	-	-	0.12	0.355	**0.403**
	LTE Band 17	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23790	710	1	20.25	20.80	1.135	-	-	-0.03	0.055	0.062
	LTE Band 17	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 5	23790	710	1	20.23	20.80	1.140	-	-	-0.14	0.251	0.286
	LTE Band 17	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 5	23790	710	1	20.23	20.80	1.140	-	-	-0.09	0.008	0.009
	LTE Band 17	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 5	23790	710	1	20.23	20.80	1.140	-	-	0.07	0.347	0.396
	LTE Band 17	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 5	23790	710	1	20.23	20.80	1.140	-	-	-0.18	0.051	0.058
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23230	782	1	20.22	21.00	1.197	-	-	0	0.203	0.243
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23230	782	1	20.22	21.00	1.197	-	-	-0.14	0.007	0.008
03	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23230	782	1	20.22	21.00	1.197	-	-	-0.06	0.259	**0.310**
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23230	782	1	20.22	21.00	1.197	-	-	0	0.011	0.013
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 0	ECI 5	23230	782	1	20.21	21.00	1.199	-	-	0.12	0.191	0.229
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 0	ECI 5	23230	782	1	20.21	21.00	1.199	-	-	0.01	0.005	0.006
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 0	ECI 5	23230	782	1	20.21	21.00	1.199	-	-	-0.05	0.253	0.303
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 0	ECI 5	23230	782	1	20.21	21.00	1.199	-	-	-0.12	0.010	0.012
	LTE Band 13	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	23230	782	1	23.00	23.80	1.202	-	-	-0.09	0.204	0.245
	LTE Band 13	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	23230	782	1	23.00	23.80	1.202	-	-	0.15	0.137	0.165
	LTE Band 13	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	23230	782	1	23.00	23.80	1.202	-	-	-0.02	0.172	0.207
	LTE Band 13	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	23230	782	1	23.00	23.80	1.202	-	-	-0.14	0.102	0.123
	LTE Band 13	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 5	23230	782	1	22.93	23.80	1.222	-	-	-0.09	0.182	0.222
	LTE Band 13	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 5	23230	782	1	22.93	23.80	1.222	-	-	-0.14	0.122	0.149
	LTE Band 13	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 5	23230	782	1	22.93	23.80	1.222	-	-	-0.04	0.153	0.187
	LTE Band 13	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 5	23230	782	1	22.93	23.80	1.222	-	-	0.19	0.091	0.111
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	17.56	18.80	1.330	-	-	-0.09	0.091	0.121
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	17.56	18.80	1.330	-	-	-0.19	0.006	0.008
05	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	17.56	18.80	1.330	-	-	0.15	0.149	**0.198**
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	17.56	18.80	1.330	-	-	-0.06	0.011	0.015
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	17.52	18.80	1.343	-	-	0.01	0.098	0.132
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	17.52	18.80	1.343	-	-	0.18	0.005	0.007
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	141500	707.5	1	17.52	18.80	1.343	-	-	0.01	0.133	0.179
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	141500	707.5	1	17.52	18.80	1.343	-	-	-0.17	0.008	0.011
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	22.82	24.20	1.374	-	-	-0.03	0.113	0.155
	FR1 n12	15M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	22.82	24.20	1.374	-	-	-0.13	0.069	0.095

	FR1 n12	15M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	22.82	24.20	1.374	-	-	-0.02	0.101	0.139
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	22.82	24.20	1.374	-	-	0	0.056	0.077
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	22.75	24.20	1.396	-	-	-0.08	0.105	0.147
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	22.75	24.20	1.396	-	-	-0.19	0.064	0.089
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	141500	707.5	1	22.75	24.20	1.396	-	-	-0.09	0.094	0.131
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	141500	707.5	1	22.75	24.20	1.396	-	-	0.04	0.052	0.073
835 MHz																					
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Cheek	0mm	Ant 0	ECI 5	189	836.4	1	24.99	25.60	1.151	-	-	-0.12	0.626	0.720
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Tilted	0mm	Ant 0	ECI 5	189	836.4	1	24.99	25.60	1.151	-	-	-0.04	0.102	0.117
06	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	189	836.4	1	24.99	25.60	1.151	-	-	-0.02	0.921	**1.060**
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Tilted	0mm	Ant 0	ECI 5	189	836.4	1	24.99	25.60	1.151	-	-	0.01	0.065	0.075
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	128	824.2	1	24.89	25.60	1.178	-	-	-0.13	0.863	1.016
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	251	848.8	1	24.82	25.60	1.197	-	-	0.03	0.854	1.022
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 10	189	836.4	1	24.22	24.90	1.169	-	-	-0.02	0.784	0.917
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Cheek	0mm	Ant 1	ECI 5	189	836.4	1	28.63	29.50	1.222	-	-	0.15	0.359	0.439
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Tilted	0mm	Ant 1	ECI 5	189	836.4	1	28.63	29.50	1.222	-	-	-0.15	0.141	0.172
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 1	ECI 5	189	836.4	1	28.63	29.50	1.222	-	-	0.14	0.166	0.203
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Tilted	0mm	Ant 1	ECI 5	189	836.4	1	28.63	29.50	1.222	-	-	0	0.104	0.127
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 0	ECI 5	4182	836.4	1	21.50	21.90	1.096	-	-	0.03	0.707	0.775
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 0	ECI 5	4182	836.4	1	21.50	21.90	1.096	-	-	-0.01	0.118	0.129
07	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 5	4182	836.4	1	21.50	21.90	1.096	-	-	-0.02	0.872	**0.956**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 0	ECI 5	4182	836.4	1	21.50	21.90	1.096	-	-	-0.13	0.114	0.125
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 5	4132	826.4	1	21.37	21.90	1.130	-	-	0.01	0.830	0.938
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 0	ECI 5	4233	846.6	1	21.43	21.90	1.114	-	-	0.09	0.823	0.917
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 1	ECI 5	4182	836.4	1	24.34	24.80	1.112	-	-	0.19	0.390	0.434
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 1	ECI 5	4182	836.4	1	24.34	24.80	1.112	-	-	-0.14	0.173	0.192
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 1	ECI 5	4182	836.4	1	24.34	24.80	1.112	-	-	-0.1	0.224	0.249
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 1	ECI 5	4182	836.4	1	24.34	24.80	1.112	-	-	0.06	0.111	0.123
08	LTE Band 5	10M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	20525	836.5	1	24.30	24.80	1.122	-	-	0.06	0.333	**0.374**
	LTE Band 5	10M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	20525	836.5	1	24.30	24.80	1.122	-	-	0.02	0.142	0.159
	LTE Band 5	10M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	20525	836.5	1	24.30	24.80	1.122	-	-	0.07	0.204	0.229
	LTE Band 5	10M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	20525	836.5	1	24.30	24.80	1.122	-	-	-0.14	0.105	0.118
	LTE Band 5	10M	QPSK	25	0	-	Right Cheek	0mm	Ant 1	ECI 5	20525	836.5	1	24.10	24.80	1.175	-	-	-0.04	0.312	0.367
	LTE Band 5	10M	QPSK	25	0	-	Right Tilted	0mm	Ant 1	ECI 5	20525	836.5	1	24.10	24.80	1.175	-	-	-0.11	0.135	0.159
	LTE Band 5	10M	QPSK	25	0	-	Left Cheek	0mm	Ant 1	ECI 5	20525	836.5	1	24.10	24.80	1.175	-	-	-0.1	0.190	0.223
	LTE Band 5	10M	QPSK	25	0	-	Left Tilted	0mm	Ant 1	ECI 5	20525	836.5	1	24.10	24.80	1.175	-	-	-0.01	0.098	0.115
	LTE Band 18	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	23925	822.5	1	19.60	19.80	1.047	-	-	0.15	0.294	0.308
	LTE Band 18	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	23925	822.5	1	19.60	19.80	1.047	-	-	0.16	0.053	0.055
09	LTE Band 18	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	23925	822.5	1	19.60	19.80	1.047	-	-	0.09	0.401	**0.420**
	LTE Band 18	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	23925	822.5	1	19.60	19.80	1.047	-	-	-0.02	0.058	0.061
	LTE Band 18	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	ECI 5	23925	822.5	1	19.59	19.80	1.050	-	-	-0.16	0.314	0.330
	LTE Band 18	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	ECI 5	23925	822.5	1	19.59	19.80	1.050	-	-	0.16	0.057	0.060
	LTE Band 18	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	ECI 5	23925	822.5	1	19.59	19.80	1.050	-	-	0.09	0.391	0.410
	LTE Band 18	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	ECI 5	23925	822.5	1	19.59	19.80	1.050	-	-	0.1	0.063	0.066
	LTE Band 18	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	23925	822.5	1	24.78	25.00	1.052	-	-	-0.01	0.336	0.353
	LTE Band 18	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	23925	822.5	1	24.78	25.00	1.052	-	-	0.09	0.172	0.181
	LTE Band 18	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	23925	822.5	1	24.78	25.00	1.052	-	-	0.07	0.243	0.256
	LTE Band 18	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	23925	822.5	1	24.78	25.00	1.052	-	-	0.08	0.130	0.137
	LTE Band 18	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	ECI 5	23925	822.5	1	24.57	25.00	1.104	-	-	-0.16	0.296	0.327
	LTE Band 18	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	ECI 5	23925	822.5	1	24.57	25.00	1.104	-	-	0.02	0.151	0.167
	LTE Band 18	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 5	23925	822.5	1	24.57	25.00	1.104	-	-	0.12	0.217	0.240
	LTE Band 18	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	ECI 5	23925	822.5	1	24.57	25.00	1.104	-	-	0.17	0.117	0.129
	LTE Band 19	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	24075	837.5	1	19.04	19.30	1.062	-	-	0.13	0.365	0.388
	LTE Band 19	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	24075	837.5	1	19.04	19.30	1.062	-	-	0.06	0.066	0.070
10	LTE Band 19	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	24075	837.5	1	19.04	19.30	1.062	-	-	-0.16	0.538	**0.571**
	LTE Band 19	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	24075	837.5	1	19.04	19.30	1.062	-	-	0.08	0.077	0.082

	LTE Band 19	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	ECI 5	24075	837.5	1	18.96	19.30	1.081	-	-	0.14	0.368	0.398
	LTE Band 19	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	ECI 5	24075	837.5	1	18.96	19.30	1.081	-	-	-0.19	0.069	0.075
	LTE Band 19	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	ECI 5	24075	837.5	1	18.96	19.30	1.081	-	-	0.07	0.519	0.561
	LTE Band 19	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	ECI 5	24075	837.5	1	18.96	19.30	1.081	-	-	-0.07	0.076	0.082
	LTE Band 19	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	24075	837.5	1	24.61	25.00	1.094	-	-	0.19	0.379	0.415
	LTE Band 19	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	24075	837.5	1	24.61	25.00	1.094	-	-	-0.09	0.142	0.155
	LTE Band 19	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	24075	837.5	1	24.61	25.00	1.094	-	-	0.16	0.208	0.228
	LTE Band 19	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	24075	837.5	1	24.61	25.00	1.094	-	-	0	0.098	0.107
	LTE Band 19	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	ECI 5	24075	837.5	1	24.37	25.00	1.156	-	-	-0.02	0.346	0.400
	LTE Band 19	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	ECI 5	24075	837.5	1	24.37	25.00	1.156	-	-	-0.13	0.130	0.150
	LTE Band 19	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 5	24075	837.5	1	24.37	25.00	1.156	-	-	0.08	0.190	0.220
	LTE Band 19	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	ECI 5	24075	837.5	1	24.37	25.00	1.156	-	-	-0.16	0.089	0.103
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	17.95	18.30	1.084	-	-	0.06	0.282	0.306
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	17.95	18.30	1.084	-	-	0.18	0.050	0.054
11	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	17.95	18.30	1.084	-	-	-0.05	0.364	**0.395**
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	17.95	18.30	1.084	-	-	-0.02	0.055	0.060
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	17.89	18.30	1.099	-	-	0.15	0.276	0.303
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	17.89	18.30	1.099	-	-	-0.18	0.049	0.054
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 0	ECI 5	26865	831.5	1	17.89	18.30	1.099	-	-	-0.16	0.352	0.387
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 0	ECI 5	26865	831.5	1	17.89	18.30	1.099	-	-	0.07	0.055	0.060
	LTE Band 26	15M	QPSK	1	0	-	Right Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	24.20	24.50	1.072	-	-	0.05	0.328	0.351
	LTE Band 26	15M	QPSK	1	0	-	Right Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	24.20	24.50	1.072	-	-	0.01	0.139	0.149
	LTE Band 26	15M	QPSK	1	0	-	Left Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	24.20	24.50	1.072	-	-	-0.17	0.210	0.225
	LTE Band 26	15M	QPSK	1	0	-	Left Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	24.20	24.50	1.072	-	-	0.13	0.107	0.115
	LTE Band 26	15M	QPSK	36	0	-	Right Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	24.16	24.50	1.081	-	-	0.04	0.313	0.338
	LTE Band 26	15M	QPSK	36	0	-	Right Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	24.16	24.50	1.081	-	-	-0.12	0.133	0.144
	LTE Band 26	15M	QPSK	36	0	-	Left Cheek	0mm	Ant 1	ECI 5	26865	831.5	1	24.16	24.50	1.081	-	-	0.05	0.201	0.217
	LTE Band 26	15M	QPSK	36	0	-	Left Tilted	0mm	Ant 1	ECI 5	26865	831.5	1	24.16	24.50	1.081	-	-	0.04	0.102	0.110
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	167300	836.5	1	18.41	19.60	1.315	-	-	0.11	0.292	0.384
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	167300	836.5	1	18.41	19.60	1.315	-	-	0.07	0.054	0.071
12	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	167300	836.5	1	18.41	19.60	1.315	-	-	0.19	0.434	**0.571**
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	167300	836.5	1	18.41	19.60	1.315	-	-	0.16	0.052	0.068
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	167300	836.5	1	18.36	19.60	1.330	-	-	0.12	0.317	0.422
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	167300	836.5	1	18.36	19.60	1.330	-	-	-0.17	0.058	0.077
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	167300	836.5	1	18.36	19.60	1.330	-	-	-0.18	0.419	0.557
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	167300	836.5	1	18.36	19.60	1.330	-	-	-0.03	0.057	0.076
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	167300	836.5	1	24.57	25.90	1.358	-	-	0.03	0.352	0.478
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	167300	836.5	1	24.57	25.90	1.358	-	-	0.09	0.150	0.204
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	167300	836.5	1	24.57	25.90	1.358	-	-	-0.02	0.226	0.307
	FR1 n5	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	167300	836.5	1	24.57	25.90	1.358	-	-	0	0.115	0.156
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	167300	836.5	1	24.54	25.90	1.368	-	-	-0.1	0.336	0.460
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	167300	836.5	1	24.54	25.90	1.368	-	-	-0.17	0.143	0.196
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	167300	836.5	1	24.54	25.90	1.368	-	-	-0.12	0.216	0.295
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	167300	836.5	1	24.54	25.90	1.368	-	-	0.02	0.110	0.150
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	17.38	18.60	1.324	-	-	-0.01	0.252	0.334
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	17.38	18.60	1.324	-	-	-0.1	0.048	0.064
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	17.38	18.60	1.324	-	-	-0.14	0.317	0.420
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	17.38	18.60	1.324	-	-	-0.03	0.044	0.058
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	17.31	18.60	1.346	-	-	0	0.241	0.324
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	17.31	18.60	1.346	-	-	-0.04	0.046	0.062
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 0	ECI 5	166300	831.5	1	17.31	18.60	1.346	-	-	0.12	0.303	0.408
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 0	ECI 5	166300	831.5	1	17.31	18.60	1.346	-	-	-0.03	0.042	0.057
13	FR1 n26	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	24.63	25.90	1.340	-	-	-0.1	0.371	**0.497**
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	24.63	25.90	1.340	-	-	0	0.161	0.216
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	24.63	25.90	1.340	-	-	0.14	0.237	0.318
	FR1 n26	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	24.63	25.90	1.340	-	-	-0.09	0.127	0.170

	FR1 n26	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	24.59	25.90	1.352	-	-	-0.15	0.348	0.471
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	24.59	25.90	1.352	-	-	0.01	0.158	0.214
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 1	ECI 5	166300	831.5	1	24.59	25.90	1.352	-	-	0.14	0.242	0.327
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 1	ECI 5	166300	831.5	1	24.59	25.90	1.352	-	-	0.07	0.128	0.173
1750 MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	ECI 5	1413	1732.6	1	24.43	24.80	1.089	-	-	0.03	0.160	0.174
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	ECI 5	1413	1732.6	1	24.43	24.80	1.089	-	-	-0.16	0.048	0.052
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 5	1413	1732.6	1	24.43	24.80	1.089	-	-	0.1	0.154	0.168
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	ECI 5	1413	1732.6	1	24.43	24.80	1.089	-	-	0.07	0.078	0.085
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	1413	1732.6	1	17.43	17.80	1.089	-	-	0.15	0.818	0.891
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 6	ECI 5	1413	1732.6	1	17.43	17.80	1.089	-	-	-0.14	0.570	0.621
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 6	ECI 5	1413	1732.6	1	17.43	17.80	1.089	-	-	-0.01	0.337	0.367
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 6	ECI 5	1413	1732.6	1	17.43	17.80	1.089	-	-	0.06	0.491	0.535
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	1312	1712.4	1	17.39	17.80	1.099	-	-	-0.12	0.784	0.862
17	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	1513	1752.6	1	17.33	17.80	1.114	-	-	-0.12	0.857	**0.955**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 7	ECI 5	1413	1732.6	1	18.16	18.50	1.081	-	-	-0.18	0.159	0.172
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 7	ECI 5	1413	1732.6	1	18.16	18.50	1.081	-	-	0.16	0.084	0.091
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 7	ECI 5	1413	1732.6	1	18.16	18.50	1.081	-	-	-0.16	0.742	0.802
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 7	ECI 5	1413	1732.6	1	18.16	18.50	1.081	-	-	-0.08	0.213	0.230
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 7	ECI 5	1312	1712.4	1	18.09	18.50	1.099	-	-	0.08	0.659	0.724
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 7	ECI 5	1513	1752.6	1	18.04	18.50	1.112	-	-	0.16	0.787	0.875
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 11	ECI 5	1413	1732.6	1	21.04	21.50	1.112	-	-	0	0.702	0.780
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 11	ECI 5	1413	1732.6	1	21.04	21.50	1.112	-	-	-0.15	0.226	0.251
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 11	ECI 5	1413	1732.6	1	21.04	21.50	1.112	-	-	-0.14	0.231	0.257
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 11	ECI 5	1413	1732.6	1	21.04	21.50	1.112	-	-	0.15	0.118	0.131
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	132322	1745	1	24.10	25.00	1.230	-	-	0.06	0.162	0.199
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	132322	1745	1	24.10	25.00	1.230	-	-	0.19	0.056	0.069
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	132322	1745	1	24.10	25.00	1.230	-	-	0.18	0.151	0.186
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	132322	1745	1	24.10	25.00	1.230	-	-	-0.08	0.082	0.101
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	132322	1745	1	23.70	25.00	1.349	-	-	-0.15	0.145	0.196
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	132322	1745	1	23.70	25.00	1.349	-	-	-0.1	0.052	0.070
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	132322	1745	1	23.70	25.00	1.349	-	-	0.19	0.132	0.178
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	132322	1745	1	23.70	25.00	1.349	-	-	-0.15	0.073	0.098
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	132322	1745	1	17.59	18.70	1.291	-	-	-0.19	0.817	1.055
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 5	132322	1745	1	17.59	18.70	1.291	-	-	0.06	0.566	0.731
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 5	132322	1745	1	17.59	18.70	1.291	-	-	-0.06	0.338	0.436
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 5	132322	1745	1	17.59	18.70	1.291	-	-	0.13	0.507	0.655
18	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	132072	1720	1	17.57	18.70	1.297	-	-	-0.14	0.883	**1.145**
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	132572	1770	1	17.54	18.70	1.306	-	-	0.14	0.786	1.027
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	132322	1745	1	17.49	18.70	1.321	-	-	0.14	0.780	1.031
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 5	132322	1745	1	17.49	18.70	1.321	-	-	0.07	0.541	0.715
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 5	132322	1745	1	17.49	18.70	1.321	-	-	0.08	0.323	0.427
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 5	132322	1745	1	17.49	18.70	1.321	-	-	-0.09	0.484	0.640
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	132072	1720	1	17.48	18.70	1.324	-	-	0.04	0.843	1.116
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	132572	1770	1	17.45	18.70	1.334	-	-	-0.03	0.751	1.001
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	ECI 5	132322	1745	1	17.40	18.70	1.349	-	-	0.03	0.691	0.932
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 5	132322	1745	1	19.15	19.80	1.161	-	-	-0.07	0.171	0.199
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 5	132322	1745	1	19.15	19.80	1.161	-	-	0.04	0.086	0.100
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	132322	1745	1	19.15	19.80	1.161	-	-	0.03	0.802	0.931
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 5	132322	1745	1	19.15	19.80	1.161	-	-	0.11	0.219	0.254
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	132072	1720	1	19.09	19.80	1.178	-	-	0	0.767	0.903
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	132572	1770	1	19.11	19.80	1.172	-	-	0.09	0.780	0.914
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 5	132322	1745	1	19.11	19.80	1.172	-	-	0.07	0.210	0.246
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 5	132322	1745	1	19.11	19.80	1.172	-	-	-0.18	0.095	0.111
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	132322	1745	1	19.11	19.80	1.172	-	-	-0.19	0.747	0.876
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 5	132322	1745	1	19.11	19.80	1.172	-	-	-0.06	0.227	0.266

	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	132072	1720	1	19.06	19.80	1.186	-	-	-0.05	0.780	0.925
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	132572	1770	1	19.08	19.80	1.180	-	-	-0.02	0.758	0.895
	LTE Band 66	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 7	ECI 5	132322	1745	1	19.08	19.80	1.180	-	-	-0.16	0.712	0.840
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	132322	1745	1	21.78	22.80	1.265	-	-	0.19	0.651	0.823
	LTE Band 66	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	132322	1745	1	21.78	22.80	1.265	-	-	0.03	0.195	0.247
	LTE Band 66	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	132322	1745	1	21.78	22.80	1.265	-	-	0.01	0.182	0.230
	LTE Band 66	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	132322	1745	1	21.78	22.80	1.265	-	-	-0.05	0.077	0.097
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	132072	1720	1	21.70	22.80	1.288	-	-	0.05	0.680	0.876
	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	132572	1770	1	21.71	22.80	1.285	-	-	0.02	0.610	0.784
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	132322	1745	1	21.71	22.80	1.285	-	-	0.05	0.660	0.848
	LTE Band 66	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	132322	1745	1	21.71	22.80	1.285	-	-	0.11	0.207	0.266
	LTE Band 66	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	132322	1745	1	21.71	22.80	1.285	-	-	0.18	0.189	0.243
	LTE Band 66	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	132322	1745	1	21.71	22.80	1.285	-	-	0.07	0.080	0.103
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	132072	1720	1	21.69	22.80	1.291	-	-	-0.05	0.629	0.812
	LTE Band 66	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	132572	1770	1	21.66	22.80	1.300	-	-	-0.16	0.623	0.810
	LTE Band 66	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 11	ECI 5	132322	1745	1	21.64	22.80	1.306	-	-	-0.06	0.650	0.849
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	349000	1745	1	24.61	25.90	1.346	-	-	0.13	0.165	0.222
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	349000	1745	1	24.61	25.90	1.346	-	-	-0.06	0.048	0.065
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	349000	1745	1	24.61	25.90	1.346	-	-	-0.17	0.144	0.194
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	349000	1745	1	24.61	25.90	1.346	-	-	-0.11	0.069	0.093
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	349000	1745	1	24.58	25.90	1.355	-	-	-0.09	0.160	0.217
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	349000	1745	1	24.58	25.90	1.355	-	-	-0.05	0.046	0.062
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	349000	1745	1	24.58	25.90	1.355	-	-	0.11	0.140	0.190
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	349000	1745	1	24.58	25.90	1.355	-	-	-0.02	0.075	0.102
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	349000	1745	1	16.78	18.20	1.387	-	-	0.02	0.739	1.025
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	349000	1745	1	16.78	18.20	1.387	-	-	-0.15	0.597	0.828
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	349000	1745	1	16.78	18.20	1.387	-	-	0.11	0.340	0.471
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	349000	1745	1	16.78	18.20	1.387	-	-	-0.08	0.477	0.661
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	349000	1745	1	16.74	18.20	1.400	-	-	-0.14	0.703	0.984
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	349000	1745	1	16.74	18.20	1.400	-	-	0.17	0.606	0.848
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	349000	1745	1	16.74	18.20	1.400	-	-	0.02	0.367	0.514
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	349000	1745	1	16.74	18.20	1.400	-	-	-0.01	0.509	0.712
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	349000	1745	1	16.71	18.20	1.409	-	-	-0.08	0.664	0.936
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	349000	1745	1	16.71	18.20	1.409	-	-	-0.15	0.583	0.822
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	349000	1745	1	17.84	18.90	1.276	-	-	0.19	0.200	0.255
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	349000	1745	1	17.84	18.90	1.276	-	-	-0.09	0.105	0.134
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	349000	1745	1	17.84	18.90	1.276	-	-	0.15	0.824	1.052
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	349000	1745	1	17.84	18.90	1.276	-	-	0.05	0.234	0.299
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	ECI 10	349000	1745	1	16.81	18.20	1.377	-	-	0.06	0.655	0.902
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	349000	1745	1	17.81	18.90	1.285	-	-	0.1	0.195	0.251
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	349000	1745	1	17.81	18.90	1.285	-	-	0.07	0.105	0.135
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	349000	1745	1	17.81	18.90	1.285	-	-	-0.12	0.813	1.045
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	349000	1745	1	17.81	18.90	1.285	-	-	-0.17	0.238	0.306
	FR1 n66	40M	QPSK	216	0	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	349000	1745	1	17.77	18.90	1.297	-	-	0.18	0.784	1.017
19	FR1 n66	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	349000	1745	1	20.94	22.40	1.400	-	-	-0.17	0.786	**1.100**
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	349000	1745	1	20.94	22.40	1.400	-	-	-0.08	0.243	0.340
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	349000	1745	1	20.94	22.40	1.400	-	-	-0.13	0.295	0.413
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	349000	1745	1	20.94	22.40	1.400	-	-	-0.01	0.135	0.189
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	349000	1745	1	20.90	22.40	1.413	-	-	0.01	0.718	1.014
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	349000	1745	1	20.90	22.40	1.413	-	-	0.12	0.226	0.319
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	349000	1745	1	20.90	22.40	1.413	-	-	-0.18	0.234	0.331
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	349000	1745	1	20.90	22.40	1.413	-	-	0.11	0.093	0.131
	FR1 n66	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	349000	1745	1	20.88	22.40	1.419	-	-	0.15	0.731	1.037
1900 MHz																					
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 5	ECI 5	810	1909.8	1	27.40	28.50	1.288	-	-	-0.05	0.069	0.089
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Tilted	0mm	Ant 5	ECI 5	810	1909.8	1	27.40	28.50	1.288	-	-	-0.02	0.013	0.017

	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Cheek	0mm	Ant 5	ECI 5	810	1909.8	1	27.40	28.50	1.288	-	-	0.17	0.097	0.125
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Tilted	0mm	Ant 5	ECI 5	810	1909.8	1	27.40	28.50	1.288	-	-	-0.18	0.008	0.010
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 6	ECI 5	810	1909.8	1	21.66	23.40	1.493	-	-	-0.15	0.655	0.978
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Tilted	0mm	Ant 6	ECI 5	810	1909.8	1	21.66	23.40	1.493	-	-	-0.14	0.524	0.782
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Cheek	0mm	Ant 6	ECI 5	810	1909.8	1	21.66	23.40	1.493	-	-	-0.04	0.395	0.590
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Tilted	0mm	Ant 6	ECI 5	810	1909.8	1	21.66	23.40	1.493	-	-	0.1	0.488	0.728
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 6	ECI 5	512	1850.2	1	21.56	23.40	1.528	-	-	-0.06	0.673	1.028
20	GSM1900	-	-	-	-	GPRS (2Tx slots)	Right Cheek	0mm	Ant 6	ECI 5	661	1880	1	21.64	23.40	1.500	-	-	-0.04	0.698	**1.047**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 5	ECI 5	9400	1880	1	23.55	23.80	1.059	-	-	0.19	0.090	0.095
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 5	ECI 5	9400	1880	1	23.55	23.80	1.059	-	-	-0.01	0.061	0.065
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 5	ECI 5	9400	1880	1	23.55	23.80	1.059	-	-	0.12	0.110	0.117
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 5	ECI 5	9400	1880	1	23.55	23.80	1.059	-	-	-0.11	0.058	0.061
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	9400	1880	1	16.65	16.80	1.035	-	-	0.12	0.775	0.802
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Tilted	0mm	Ant 6	ECI 5	9400	1880	1	16.65	16.80	1.035	-	-	-0.11	0.595	0.616
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Cheek	0mm	Ant 6	ECI 5	9400	1880	1	16.65	16.80	1.035	-	-	0.19	0.432	0.447
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Tilted	0mm	Ant 6	ECI 5	9400	1880	1	16.65	16.80	1.035	-	-	-0.01	0.581	0.601
21	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	9262	1852.4	1	16.59	16.80	1.050	-	-	0.11	0.811	**0.851**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Right Cheek	0mm	Ant 6	ECI 5	9538	1907.6	1	16.51	16.80	1.069	-	-	-0.18	0.677	0.724
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	18900	1880	1	23.15	23.80	1.161	-	-	-0.02	0.078	0.091
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	18900	1880	1	23.15	23.80	1.161	-	-	-0.03	0.053	0.062
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	18900	1880	1	23.15	23.80	1.161	-	-	0.12	0.092	0.107
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	18900	1880	1	23.15	23.80	1.161	-	-	-0.07	0.046	0.053
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	18900	1880	1	22.80	23.80	1.259	-	-	0.05	0.070	0.088
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	18900	1880	1	22.80	23.80	1.259	-	-	-0.1	0.048	0.060
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	18900	1880	1	22.80	23.80	1.259	-	-	-0.04	0.082	0.103
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	18900	1880	1	22.80	23.80	1.259	-	-	-0.15	0.041	0.052
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	18900	1880	1	16.62	17.20	1.143	-	-	-0.03	0.813	0.929
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 5	18900	1880	1	16.62	17.20	1.143	-	-	0.17	0.675	0.771
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 5	18900	1880	1	16.62	17.20	1.143	-	-	-0.07	0.486	0.555
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 5	18900	1880	1	16.62	17.20	1.143	-	-	-0.12	0.675	0.771
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	18700	1860	1	16.50	17.20	1.175	-	-	0.15	0.852	1.001
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	19100	1900	1	16.57	17.20	1.156	-	-	0.12	0.785	0.908
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	18900	1880	1	16.55	17.20	1.161	-	-	-0.16	0.827	0.961
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 5	18900	1880	1	16.55	17.20	1.161	-	-	0.01	0.661	0.768
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 5	18900	1880	1	16.55	17.20	1.161	-	-	0.07	0.494	0.574
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 5	18900	1880	1	16.55	17.20	1.161	-	-	-0.08	0.676	0.785
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	18700	1860	1	16.45	17.20	1.189	-	-	0.15	0.811	0.964
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	19100	1900	1	16.53	17.20	1.167	-	-	-0.16	0.798	0.931
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	ECI 5	18900	1880	1	16.43	17.20	1.194	-	-	0.11	0.832	0.993
22	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	18900	1880	1	20.49	21.50	1.262	-	-	0.16	0.882	**1.113**
	LTE Band 2	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	18900	1880	1	20.49	21.50	1.262	-	-	0.11	0.311	0.392
	LTE Band 2	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	18900	1880	1	20.49	21.50	1.262	-	-	-0.1	0.182	0.230
	LTE Band 2	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	18900	1880	1	20.49	21.50	1.262	-	-	-0.19	0.101	0.127
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	18700	1860	1	20.43	21.50	1.279	-	-	-0.19	0.863	1.104
	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	19100	1900	1	20.46	21.50	1.271	-	-	-0.08	0.854	1.085
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	18900	1880	1	20.46	21.50	1.271	-	-	0.04	0.817	1.038
	LTE Band 2	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	18900	1880	1	20.46	21.50	1.271	-	-	0.12	0.290	0.368
	LTE Band 2	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	18900	1880	1	20.46	21.50	1.271	-	-	0.17	0.170	0.216
	LTE Band 2	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	18900	1880	1	20.46	21.50	1.271	-	-	0.02	0.095	0.121
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	18700	1860	1	20.40	21.50	1.288	-	-	-0.18	0.796	1.025
	LTE Band 2	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	19100	1900	1	20.35	21.50	1.303	-	-	0.08	0.801	1.044
	LTE Band 2	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 11	ECI 5	18900	1880	1	20.41	21.50	1.285	-	-	0.07	0.816	1.049
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	376000	1880	1	23.03	24.20	1.309	-	-	0.05	0.105	0.137
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	376000	1880	1	23.03	24.20	1.309	-	-	-0.19	0.072	0.094
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	376000	1880	1	23.03	24.20	1.309	-	-	-0.03	0.151	0.198
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	376000	1880	1	23.03	24.20	1.309	-	-	0.11	0.073	0.096

	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	376000	1880	1	22.91	24.20	1.346	-	-	-0.1	0.089	0.120
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	376000	1880	1	22.91	24.20	1.346	-	-	0	0.062	0.083
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	376000	1880	1	22.91	24.20	1.346	-	-	0.12	0.120	0.162
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	376000	1880	1	22.91	24.20	1.346	-	-	0.1	0.060	0.081
23	FR1 n2	20M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	376000	1880	1	16.41	17.80	1.377	-	-	0.09	0.767	**1.056**
	FR1 n2	20M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	376000	1880	1	16.41	17.80	1.377	-	-	0	0.642	0.884
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	376000	1880	1	16.41	17.80	1.377	-	-	0.01	0.453	0.624
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	376000	1880	1	16.41	17.80	1.377	-	-	-0.15	0.620	0.854
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	376000	1880	1	16.34	17.80	1.400	-	-	-0.09	0.735	1.029
	FR1 n2	20M	QPSK	50	28	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	376000	1880	1	16.34	17.80	1.400	-	-	-0.08	0.611	0.855
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	376000	1880	1	16.34	17.80	1.400	-	-	-0.14	0.441	0.617
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	376000	1880	1	16.34	17.80	1.400	-	-	0.12	0.594	0.831
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	376000	1880	1	16.33	17.80	1.403	-	-	-0.11	0.747	1.048
	FR1 n2	20M	QPSK	100	0	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	376000	1880	1	16.33	17.80	1.403	-	-	0.02	0.620	0.870
	FR1 n2	20M	QPSK	100	0	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	376000	1880	1	16.33	17.80	1.403	-	-	-0.04	0.605	0.849
2600 MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100	2535	1	24.48	25.00	1.127	-	-	0	0.242	0.273
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100+ 21298	2535+ 2554.8	1	24.11	25.00	1.227	-	-	0.06	0.220	0.270
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	21100	2535	1	24.48	25.00	1.127	-	-	-0.07	0.103	0.116
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	21100	2535	1	24.48	25.00	1.127	-	-	0.14	0.195	0.220
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	21100	2535	1	24.48	25.00	1.127	-	-	0.05	0.071	0.080
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	21100	2535	1	24.12	25.00	1.225	-	-	-0.1	0.208	0.255
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	21100	2535	1	24.12	25.00	1.225	-	-	0	0.093	0.114
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	21100	2535	1	24.12	25.00	1.225	-	-	-0.19	0.173	0.212
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	21100	2535	1	24.12	25.00	1.225	-	-	0	0.063	0.077
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	21100	2535	1	15.62	16.20	1.143	-	-	0.06	0.554	0.633
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	21100+ 21298	2535+ 2554.8	1	15.40	16.20	1.202	-	-	0.1	0.499	0.600
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 5	21100	2535	1	15.62	16.20	1.143	-	-	-0.13	0.390	0.446
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 5	21100	2535	1	15.62	16.20	1.143	-	-	0.01	0.275	0.314
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 5	21100	2535	1	15.62	16.20	1.143	-	-	-0.06	0.394	0.450
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	21100	2535	1	15.58	16.20	1.153	-	-	0.1	0.529	0.610
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 5	21100	2535	1	15.58	16.20	1.153	-	-	0.18	0.372	0.429
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 5	21100	2535	1	15.58	16.20	1.153	-	-	0.16	0.263	0.303
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 5	21100	2535	1	15.58	16.20	1.153	-	-	-0.06	0.376	0.434
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 5	21100	2535	1	15.24	16.20	1.247	-	-	0.12	0.117	0.146
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 5	21100	2535	1	15.24	16.20	1.247	-	-	0.1	0.074	0.092
24	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	21100	2535	1	15.24	16.20	1.247	-	-	-0.13	0.546	**0.681**
	LTE Band 7C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	21100+ 21298	2535+ 2554.8	1	15.13	16.20	1.279	-	-	0.16	0.516	0.660
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 5	21100	2535	1	15.24	16.20	1.247	-	-	0.12	0.206	0.257
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 5	21100	2535	1	15.16	16.20	1.271	-	-	-0.02	0.116	0.147
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 5	21100	2535	1	15.16	16.20	1.271	-	-	-0.13	0.069	0.088
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	21100	2535	1	15.16	16.20	1.271	-	-	-0.17	0.502	0.638
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 5	21100	2535	1	15.16	16.20	1.271	-	-	0.06	0.203	0.258
	LTE Band 7	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	21100	2535	1	13.15	13.80	1.161	-	-	-0.12	0.503	0.584
	LTE Band 7C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	21100+ 21298	2535+ 2554.8	1	12.78	13.80	1.265	-	-	-0.12	0.415	0.525
	LTE Band 7	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	21100	2535	1	13.15	13.80	1.161	-	-	-0.18	0.148	0.172
	LTE Band 7	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	21100	2535	1	13.15	13.80	1.161	-	-	0.03	0.090	0.105
	LTE Band 7	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	21100	2535	1	13.15	13.80	1.161	-	-	0.04	0.046	0.053
	LTE Band 7	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	21100	2535	1	13.13	13.80	1.167	-	-	-0.05	0.488	0.569
	LTE Band 7	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	21100	2535	1	13.13	13.80	1.167	-	-	0.11	0.147	0.172
	LTE Band 7	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	21100	2535	1	13.13	13.80	1.167	-	-	0.17	0.089	0.104
	LTE Band 7	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	21100	2535	1	13.13	13.80	1.167	-	-	0.15	0.049	0.057
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	38000	2595	1	24.62	25.00	1.091	62.9	1.006	0.15	0.133	0.146
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	38000	2595	1	24.62	25.00	1.091	62.9	1.006	-0.04	0.081	0.089
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	38000	2595	1	24.62	25.00	1.091	62.9	1.006	-0.07	0.164	0.180

	LTE Band 38C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	37901+38099	2585.1+2604.9	1	24.13	25.00	1.222	62.9	1.006	0.04	0.143	0.176
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	38000	2595	1	24.62	25.00	1.091	62.9	1.006	0.1	0.057	0.063
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	38000	2595	1	24.27	25.00	1.183	62.9	1.006	0.13	0.124	0.148
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	38000	2595	1	24.27	25.00	1.183	62.9	1.006	-0.13	0.075	0.089
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	38000	2595	1	24.27	25.00	1.183	62.9	1.006	-0.02	0.143	0.170
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	38000	2595	1	24.27	25.00	1.183	62.9	1.006	-0.16	0.045	0.054
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	38000	2595	1	18.67	19.10	1.104	62.9	1.006	0.16	0.812	0.902
	LTE Band 38C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	37901+38099	2585.1+2604.9	1	18.35	19.10	1.189	62.9	1.006	0.16	0.736	0.880
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 5	38000	2595	1	18.67	19.10	1.104	62.9	1.006	-0.17	0.714	0.793
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 5	38000	2595	1	18.67	19.10	1.104	62.9	1.006	-0.19	0.444	0.493
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 5	38000	2595	1	18.67	19.10	1.104	62.9	1.006	-0.15	0.642	0.713
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	38000	2595	1	18.63	19.10	1.114	62.9	1.006	0.08	0.803	0.900
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 5	38000	2595	1	18.63	19.10	1.114	62.9	1.006	-0.16	0.709	0.795
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 5	38000	2595	1	18.63	19.10	1.114	62.9	1.006	-0.15	0.440	0.493
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 5	38000	2595	1	18.63	19.10	1.114	62.9	1.006	-0.06	0.633	0.710
	LTE Band 38	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	ECI 5	38000	2595	1	18.51	19.10	1.146	62.9	1.006	-0.05	0.762	0.878
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 5	38000	2595	1	19.29	19.80	1.125	62.9	1.006	0.12	0.178	0.201
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 5	38000	2595	1	19.29	19.80	1.125	62.9	1.006	-0.12	0.118	0.133
25	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	38000	2595	1	19.29	19.80	1.125	62.9	1.006	0.18	0.855	**0.967**
	LTE Band 38C	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	37901+38099	2585.1+2604.9	1	19.08	19.80	1.180	62.9	1.006	-0.15	0.789	0.937
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 5	38000	2595	1	19.29	19.80	1.125	62.9	1.006	-0.1	0.338	0.382
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 5	38000	2595	1	19.25	19.80	1.135	62.9	1.006	0.16	0.175	0.200
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 5	38000	2595	1	19.25	19.80	1.135	62.9	1.006	-0.03	0.116	0.132
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	38000	2595	1	19.25	19.80	1.135	62.9	1.006	-0.12	0.815	0.931
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 5	38000	2595	1	19.25	19.80	1.135	62.9	1.006	0.12	0.338	0.386
	LTE Band 38	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 7	ECI 5	38000	2595	1	19.16	19.80	1.159	62.9	1.006	0.04	0.825	0.962
	LTE Band 38	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	38000	2595	1	18.00	18.50	1.122	62.9	1.006	0.06	0.790	0.892
	LTE Band 38C	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	37901+38099	2585.1+2604.9	1	17.51	18.50	1.256	62.9	1.006	-0.16	0.678	0.857
	LTE Band 38	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	38000	2595	1	18.00	18.50	1.122	62.9	1.006	0.01	0.270	0.305
	LTE Band 38	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	38000	2595	1	18.00	18.50	1.122	62.9	1.006	0.05	0.152	0.172
	LTE Band 38	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	38000	2595	1	18.00	18.50	1.122	62.9	1.006	-0.08	0.090	0.102
	LTE Band 38	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	38000	2595	1	17.97	18.50	1.130	62.9	1.006	0.07	0.770	0.875
	LTE Band 38	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	38000	2595	1	17.97	18.50	1.130	62.9	1.006	-0.03	0.268	0.305
	LTE Band 38	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	38000	2595	1	17.97	18.50	1.130	62.9	1.006	0.09	0.149	0.169
	LTE Band 38	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	38000	2595	1	17.97	18.50	1.130	62.9	1.006	0.13	0.088	0.100
	LTE Band 38	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 11	ECI 5	38000	2595	1	17.87	18.50	1.156	62.9	1.006	0.06	0.773	0.899
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 5	ECI 5	40620	2593	1	22.43	22.80	1.089	62.9	1.006	-0.19	0.078	0.085
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 5	ECI 5	40620	2593	1	22.43	22.80	1.089	62.9	1.006	0.12	0.045	0.049
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	40620	2593	1	22.43	22.80	1.089	62.9	1.006	-0.15	0.073	0.080
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 5	ECI 5	40620	2593	1	22.43	22.80	1.089	62.9	1.006	0.1	0.011	0.012
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 5	ECI 5	40620	2593	1	25.54	25.80	1.062	42.9	1.009	-0.15	0.093	0.100
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 5	ECI 5	40620	2593	1	22.13	22.80	1.167	62.9	1.006	-0.05	0.071	0.083
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 5	ECI 5	40620	2593	1	22.13	22.80	1.167	62.9	1.006	-0.19	0.040	0.047
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 5	ECI 5	40620	2593	1	22.13	22.80	1.167	62.9	1.006	0.03	0.065	0.076
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 5	ECI 5	40620	2593	1	22.13	22.80	1.167	62.9	1.006	0	0.009	0.011
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	40620	2593	1	18.24	18.70	1.112	62.9	1.006	0.11	0.807	0.903
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 6	ECI 5	40620	2593	1	18.24	18.70	1.112	62.9	1.006	-0.12	0.510	0.570
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 6	ECI 5	40620	2593	1	18.24	18.70	1.112	62.9	1.006	-0.05	0.395	0.442
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 6	ECI 5	40620	2593	1	18.24	18.70	1.112	62.9	1.006	-0.14	0.519	0.580
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	39750	2506	1	18.15	18.70	1.135	62.9	1.006	0.17	0.860	0.982
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	40185	2549.5	1	17.91	18.70	1.199	62.9	1.006	-0.04	0.827	0.998
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	41055	2636.5	1	18.14	18.70	1.138	62.9	1.006	-0.04	0.833	0.953
26	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	41490	2680	1	18.20	18.70	1.122	62.9	1.006	-0.1	0.914	**1.032**
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	41490	2680	1	19.19	20.30	1.291	42.9	1.009	-0.09	0.765	0.997

	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	40620	2593	1	18.16	18.70	1.132	62.9	1.006	0.07	0.790	0.900
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 6	ECI 5	40620	2593	1	18.16	18.70	1.132	62.9	1.006	-0.1	0.444	0.506
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 6	ECI 5	40620	2593	1	18.16	18.70	1.132	62.9	1.006	-0.03	0.318	0.362
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 6	ECI 5	40620	2593	1	18.16	18.70	1.132	62.9	1.006	-0.11	0.449	0.511
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	39750	2506	1	18.01	18.70	1.172	62.9	1.006	-0.09	0.757	0.893
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	40185	2549.5	1	17.82	18.70	1.225	62.9	1.006	-0.03	0.793	0.977
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	41055	2636.5	1	18.04	18.70	1.164	62.9	1.006	0	0.851	0.997
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 6	ECI 5	41490	2680	1	18.05	18.70	1.161	62.9	1.006	-0.04	0.863	1.008
	LTE Band 41	20M	QPSK	100	0	-	Right Cheek	0mm	Ant 6	ECI 5	40620	2593	1	18.10	18.70	1.148	62.9	1.006	-0.06	0.761	0.879
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 7	ECI 5	40620	2593	1	17.52	18.20	1.169	62.9	1.006	0.03	0.109	0.128
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 7	ECI 5	40620	2593	1	17.52	18.20	1.169	62.9	1.006	-0.17	0.069	0.081
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	40620	2593	1	17.52	18.20	1.169	62.9	1.006	-0.01	0.546	0.642
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 7	ECI 5	40620	2593	1	17.52	18.20	1.169	62.9	1.006	-0.12	0.204	0.240
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	39750	2506	1	17.17	18.20	1.268	62.9	1.006	-0.07	0.481	0.613
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	40185	2549.5	1	17.51	18.20	1.172	62.9	1.006	-0.01	0.538	0.634
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	41055	2636.5	1	17.46	18.20	1.186	62.9	1.006	0.16	0.511	0.610
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	41490	2680	1	17.50	18.20	1.175	62.9	1.006	-0.08	0.489	0.578
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 7	ECI 5	40620	2593	1	18.76	19.80	1.271	42.9	1.009	0.17	0.490	0.628
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 7	ECI 5	40620	2593	1	17.47	18.20	1.183	62.9	1.006	0.09	0.106	0.126
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 7	ECI 5	40620	2593	1	17.47	18.20	1.183	62.9	1.006	0.12	0.073	0.087
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	40620	2593	1	17.47	18.20	1.183	62.9	1.006	0.18	0.518	0.616
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 7	ECI 5	40620	2593	1	17.47	18.20	1.183	62.9	1.006	0.14	0.204	0.243
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	39750	2506	1	17.11	18.20	1.285	62.9	1.006	-0.05	0.485	0.627
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	40185	2549.5	1	17.43	18.20	1.194	62.9	1.006	0.19	0.528	0.634
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	41055	2636.5	1	17.32	18.20	1.225	62.9	1.006	-0.19	0.506	0.623
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 7	ECI 5	41490	2680	1	17.39	18.20	1.205	62.9	1.006	-0.13	0.492	0.596
	LTE Band 41	20M	QPSK	100	0	-	Left Cheek	0mm	Ant 7	ECI 5	40620	2593	1	17.45	18.20	1.189	62.9	1.006	0.03	0.515	0.616
	LTE Band 41	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	40620	2549.5	1	14.08	14.80	1.180	62.9	1.006	0.14	0.312	0.370
	LTE Band 41	20M	QPSK	1	0	-	Right Tilted	0mm	Ant 11	ECI 5	40620	2549.5	1	14.08	14.80	1.180	62.9	1.006	0.1	0.103	0.122
	LTE Band 41	20M	QPSK	1	0	-	Left Cheek	0mm	Ant 11	ECI 5	40620	2549.5	1	14.08	14.80	1.180	62.9	1.006	-0.09	0.063	0.075
	LTE Band 41	20M	QPSK	1	0	-	Left Tilted	0mm	Ant 11	ECI 5	40620	2549.5	1	14.08	14.80	1.180	62.9	1.006	0.11	0.000	0.000
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	40620	2549.5	1	15.65	16.40	1.189	42.9	1.009	-0.17	0.287	0.344
	LTE Band 41	20M	QPSK	50	0	-	Right Cheek	0mm	Ant 11	ECI 5	40620	2549.5	1	13.98	14.80	1.208	62.9	1.006	0.15	0.302	0.367
	LTE Band 41	20M	QPSK	50	0	-	Right Tilted	0mm	Ant 11	ECI 5	40620	2549.5	1	13.98	14.80	1.208	62.9	1.006	-0.06	0.104	0.126
	LTE Band 41	20M	QPSK	50	0	-	Left Cheek	0mm	Ant 11	ECI 5	40620	2549.5	1	13.98	14.80	1.208	62.9	1.006	0.03	0.065	0.079
	LTE Band 41	20M	QPSK	50	0	-	Left Tilted	0mm	Ant 11	ECI 5	40620	2549.5	1	13.98	14.80	1.208	62.9	1.006	-0.17	0.000	0.000
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	507000	2535	1	25.30	25.90	1.148	-	-	-0.17	0.194	0.223
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	507000	2535	1	25.30	25.90	1.148	-	-	-0.14	0.090	0.103
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	1	25.30	25.90	1.148	-	-	-0.08	0.217	0.249
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	507000	2535	1	25.30	25.90	1.148	-	-	-0.15	0.060	0.069
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 5	ECI 5	507000	2535	1	25.17	25.90	1.183	-	-	0	0.185	0.219
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 5	ECI 5	507000	2535	1	25.17	25.90	1.183	-	-	0.07	0.086	0.102
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 5	ECI 5	507000	2535	1	25.17	25.90	1.183	-	-	-0.01	0.207	0.245
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 5	ECI 5	507000	2535	1	25.17	25.90	1.183	-	-	-0.11	0.057	0.067
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	507000	2535	1	17.63	18.10	1.114	-	-	-0.07	0.872	0.972
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	507000	2535	1	17.63	18.10	1.114	-	-	-0.19	0.714	0.796
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	507000	2535	1	17.63	18.10	1.114	-	-	-0.18	0.493	0.549
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	507000	2535	1	17.63	18.10	1.114	-	-	0.13	0.670	0.747
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	507000	2535	1	17.49	18.10	1.151	-	-	0.12	0.830	0.955
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 6	ECI 5	507000	2535	1	17.49	18.10	1.151	-	-	-0.11	0.731	0.841
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 6	ECI 5	507000	2535	1	17.49	18.10	1.151	-	-	-0.08	0.531	0.611
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 6	ECI 5	507000	2535	1	17.49	18.10	1.151	-	-	-0.05	0.725	0.834
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 6	ECI 5	507000	2535	1	17.43	18.10	1.167	-	-	-0.09	0.821	0.958
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	507000	2535	1	16.94	18.20	1.337	-	-	0.01	0.201	0.269
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	507000	2535	1	16.94	18.20	1.337	-	-	-0.09	0.110	0.147

27	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	507000	2535	1	16.94	18.20	1.337	-	-	0.07	0.874	**1.168**
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	507000	2535	1	16.94	18.20	1.337	-	-	-0.17	0.293	0.392
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 7	ECI 10	507000	2535	1	16.03	17.50	1.403	-	-	0.05	0.694	0.974
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 7	ECI 5	507000	2535	1	16.88	18.20	1.355	-	-	0.15	0.229	0.310
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 7	ECI 5	507000	2535	1	16.88	18.20	1.355	-	-	0.09	0.127	0.172
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	507000	2535	1	16.88	18.20	1.355	-	-	0.1	0.778	1.054
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 7	ECI 5	507000	2535	1	16.88	18.20	1.355	-	-	0.05	0.338	0.458
	FR1 n7	40M	QPSK	216	0	DFT-15	Left Cheek	0mm	Ant 7	ECI 5	507000	2535	1	16.85	18.20	1.365	-	-	-0.1	0.760	1.037
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	507000	2535	1	15.59	16.70	1.291	-	-	0.1	0.842	1.087
	FR1 n7	40M	QPSK	1	1	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	507000	2535	1	15.59	16.70	1.291	-	-	0.14	0.268	0.346
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	507000	2535	1	15.59	16.70	1.291	-	-	0.18	0.174	0.225
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	507000	2535	1	15.59	16.70	1.291	-	-	0.17	0.086	0.111
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	507000	2535	1	15.54	16.70	1.306	-	-	-0.12	0.806	1.053
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Tilted	0mm	Ant 11	ECI 5	507000	2535	1	15.54	16.70	1.306	-	-	0.03	0.286	0.374
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Cheek	0mm	Ant 11	ECI 5	507000	2535	1	15.54	16.70	1.306	-	-	0.08	0.184	0.240
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Tilted	0mm	Ant 11	ECI 5	507000	2535	1	15.54	16.70	1.306	-	-	-0.04	0.092	0.120
	FR1 n7	40M	QPSK	216	0	DFT-15	Right Cheek	0mm	Ant 11	ECI 5	507000	2535	1	15.52	16.70	1.312	-	-	-0.05	0.775	1.017
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	519000	2595	1	24.57	25.90	1.358	-	-	0.04	0.222	0.302
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	519000	2595	1	24.57	25.90	1.358	-	-	-0.09	0.106	0.144
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	519000	2595	1	24.57	25.90	1.358	-	-	-0.13	0.231	0.314
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	519000	2595	1	24.57	25.90	1.358	-	-	-0.04	0.071	0.096
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	519000	2595	1	24.50	25.90	1.380	-	-	0.12	0.210	0.290
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	519000	2595	1	24.50	25.90	1.380	-	-	0.18	0.108	0.149
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	519000	2595	1	24.50	25.90	1.380	-	-	0.15	0.224	0.309
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	519000	2595	1	24.50	25.90	1.380	-	-	-0.13	0.076	0.105
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	1	16.58	17.50	1.236	-	-	-0.01	0.918	1.135
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	519000	2595	1	16.58	17.50	1.236	-	-	-0.16	0.779	0.963
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	519000	2595	1	16.58	17.50	1.236	-	-	-0.08	0.440	0.544
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	519000	2595	1	16.58	17.50	1.236	-	-	-0.07	0.621	0.768
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	1	16.50	17.50	1.259	-	-	0.11	0.860	1.083
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	519000	2595	1	16.50	17.50	1.259	-	-	0.08	0.731	0.920
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	519000	2595	1	16.50	17.50	1.259	-	-	0.05	0.473	0.595
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	519000	2595	1	16.50	17.50	1.259	-	-	-0.1	0.630	0.793
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	1	16.45	17.50	1.274	-	-	0	0.844	1.075
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	519000	2595	1	16.45	17.50	1.274	-	-	-0.03	0.727	0.926
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	519000	2595	1	17.17	18.50	1.358	-	-	0.14	0.220	0.299
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	519000	2595	1	17.17	18.50	1.358	-	-	-0.16	0.125	0.170
28	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	519000	2595	1	17.17	18.50	1.358	-	-	0.03	0.872	**1.184**
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	519000	2595	2	17.17	18.50	1.358	-	-	0.05	0.846	1.149
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	519000	2595	1	17.17	18.50	1.358	-	-	-0.09	0.339	0.460
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 10	519000	2595	1	16.54	17.80	1.337	-	-	0.03	0.742	0.992
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	519000	2595	1	17.13	18.50	1.371	-	-	0.08	0.210	0.288
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	519000	2595	1	17.13	18.50	1.371	-	-	-0.06	0.119	0.163
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	519000	2595	1	17.13	18.50	1.371	-	-	0.07	0.833	1.142
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	519000	2595	1	17.13	18.50	1.371	-	-	0.09	0.324	0.444
	FR1 n38	40M	QPSK	100	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	519000	2595	1	17.11	18.50	1.377	-	-	-0.12	0.796	1.096
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	519000	2595	1	15.62	17.00	1.374	-	-	-0.09	0.844	1.160
	FR1 n38	40M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	519000	2595	1	15.62	17.00	1.374	-	-	-0.19	0.309	0.425
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	519000	2595	1	15.62	17.00	1.374	-	-	-0.11	0.157	0.216
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	519000	2595	1	15.62	17.00	1.374	-	-	0.16	0.098	0.135
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	519000	2595	1	15.60	17.00	1.380	-	-	-0.17	0.795	1.097
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	519000	2595	1	15.60	17.00	1.380	-	-	-0.15	0.311	0.429
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	519000	2595	1	15.60	17.00	1.380	-	-	0.09	0.158	0.218
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	519000	2595	1	15.60	17.00	1.380	-	-	0.06	0.095	0.131
	FR1 n38	40M	QPSK	100	0	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	519000	2595	1	15.51	17.00	1.409	-	-	0.03	0.799	1.126
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	518598	2593	1	25.02	26.20	1.312	-	-	-0.1	0.214	0.281

	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	518598	2593	1	25.02	26.20	1.312	-	-	-0.17	0.091	0.119
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	518598	2593	1	25.02	26.20	1.312	-	-	-0.19	0.238	0.312
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	518598	2593	1	25.02	26.20	1.312	-	-	-0.1	0.072	0.094
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 5	ECI 5	518598	2593	1	24.82	26.20	1.374	-	-	0.05	0.200	0.275
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 5	ECI 5	518598	2593	1	24.82	26.20	1.374	-	-	0.1	0.085	0.117
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 5	ECI 5	518598	2593	1	24.82	26.20	1.374	-	-	0.14	0.222	0.305
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 5	ECI 5	518598	2593	1	24.82	26.20	1.374	-	-	-0.03	0.067	0.092
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	518598	2593	1	13.13	13.90	1.194	-	-	0.18	0.361	0.431
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	518598	2593	1	13.13	13.90	1.194	-	-	0.05	0.300	0.358
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	518598	2593	1	13.13	13.90	1.194	-	-	0.12	0.202	0.241
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	518598	2593	1	13.13	13.90	1.194	-	-	-0.13	0.270	0.322
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	518598	2593	1	13.03	13.90	1.222	-	-	0.17	0.345	0.422
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	518598	2593	1	13.03	13.90	1.222	-	-	0.04	0.286	0.349
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	518598	2593	1	13.03	13.90	1.222	-	-	0.09	0.193	0.236
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	518598	2593	1	13.03	13.90	1.222	-	-	-0.02	0.258	0.315
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	518598	2593	1	14.15	15.40	1.334	-	-	-0.19	0.119	0.159
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	518598	2593	1	14.15	15.40	1.334	-	-	0	0.060	0.080
29	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	518598	2593	1	14.15	15.40	1.334	-	-	-0.12	0.489	**0.652**
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	518598	2593	1	14.15	15.40	1.334	-	-	-0.13	0.151	0.201
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 7	ECI 5	518598	2593	1	14.10	15.40	1.349	-	-	-0.02	0.099	0.134
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 7	ECI 5	518598	2593	1	14.10	15.40	1.349	-	-	0.01	0.059	0.080
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	518598	2593	1	14.10	15.40	1.349	-	-	0.16	0.469	0.633
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 7	ECI 5	518598	2593	1	14.10	15.40	1.349	-	-	0.11	0.144	0.194
	FR1 n41 HPUE	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 7	ECI 5	518598	2593	1	14.06	15.40	1.361	-	-	0.1	0.451	0.614
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	518598	2593	1	10.51	11.60	1.285	-	-	0.05	0.266	0.342
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	518598	2593	1	10.51	11.60	1.285	-	-	0.11	0.091	0.117
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	518598	2593	1	10.51	11.60	1.285	-	-	0.12	0.046	0.059
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	518598	2593	1	10.51	11.60	1.285	-	-	0.01	0.007	0.009
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 11	ECI 5	518598	2593	1	10.44	11.60	1.306	-	-	-0.16	0.240	0.313
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 11	ECI 5	518598	2593	1	10.44	11.60	1.306	-	-	0.05	0.098	0.128
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 11	ECI 5	518598	2593	1	10.44	11.60	1.306	-	-	0.05	0.047	0.061
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 11	ECI 5	518598	2593	1	10.44	11.60	1.306	-	-	0.07	0.006	0.008
3-4GHz																					
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3500	1	10.81	12.00	1.315	-	-	0.11	0.143	0.188
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3500	1	10.81	12.00	1.315	-	-	-0.01	0.163	0.214
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3500	1	10.81	12.00	1.315	-	-	-0.15	0.291	0.383
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3500	1	10.81	12.00	1.315	-	-	0.02	0.243	0.320
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3500	1	10.76	12.00	1.330	-	-	0.01	0.137	0.182
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3500	1	10.76	12.00	1.330	-	-	-0.15	0.155	0.206
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3500	1	10.76	12.00	1.330	-	-	-0.19	0.278	0.370
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3500	1	10.76	12.00	1.330	-	-	0.1	0.232	0.309
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	656000	3840	1	10.64	12.00	1.368	-	-	0.12	0.219	0.300
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	656000	3840	1	10.64	12.00	1.368	-	-	0.08	0.234	0.320
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	656000	3840	1	10.64	12.00	1.368	-	-	-0.18	0.412	0.564
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	656000	3840	1	10.64	12.00	1.368	-	-	0.12	0.322	0.440
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	656000	3840	1	10.60	12.00	1.380	-	-	0.14	0.209	0.289
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	656000	3840	1	10.60	12.00	1.380	-	-	-0.13	0.222	0.306
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	656000	3840	1	10.60	12.00	1.380	-	-	0.18	0.396	0.547
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	656000	3840	1	10.60	12.00	1.380	-	-	0	0.306	0.422
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	656000	3840	1	10.49	12.00	1.416	-	-	-0.02	0.378	0.535
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	656000	3840	1	10.49	12.00	1.416	-	-	-0.16	0.292	0.413

	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3500	1	14.90	15.90	1.259	-	-	-0.13	0.289	0.364
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3500	1	14.90	15.90	1.259	-	-	-0.15	0.059	0.074
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3500	1	14.90	15.90	1.259	-	-	-0.18	0.649	0.817
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3500	1	14.90	15.90	1.259	-	-	0.09	0.126	0.159
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3500	1	14.85	15.90	1.274	-	-	0.03	0.275	0.350
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3500	1	14.85	15.90	1.274	-	-	-0.08	0.056	0.071
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3500	1	14.85	15.90	1.274	-	-	-0.05	0.617	0.786
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3500	1	14.85	15.90	1.274	-	-	0.15	0.120	0.153
	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3500	1	14.76	15.90	1.300	-	-	0.09	0.589	0.766
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	656000	3840	1	15.08	15.90	1.208	-	-	-0.01	0.382	0.461
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	656000	3840	1	15.08	15.90	1.208	-	-	0.03	0.046	0.056
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	656000	3840	1	15.08	15.90	1.208	-	-	-0.14	0.607	0.733
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	656000	3840	1	15.08	15.90	1.208	-	-	0.13	0.113	0.136
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	656000	3840	1	15.02	15.90	1.225	-	-	0.06	0.365	0.447
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	656000	3840	1	15.02	15.90	1.225	-	-	0	0.044	0.054
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	656000	3840	1	15.02	15.90	1.225	-	-	-0.19	0.580	0.710
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	656000	3840	1	15.02	15.90	1.225	-	-	0.15	0.108	0.132
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	656000	3840	1	14.99	15.90	1.233	-	-	-0.19	0.349	0.430
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	656000	3840	1	14.99	15.90	1.233	-	-	0.12	0.042	0.052
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3500	1	15.70	17.20	1.413	-	-	0.19	0.555	0.784
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3500	1	15.70	17.20	1.413	-	-	0.17	0.488	0.689
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3500	1	15.70	17.20	1.413	-	-	-0.03	0.203	0.287
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3500	1	15.70	17.20	1.413	-	-	-0.16	0.244	0.345
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3500	1	15.65	17.20	1.429	-	-	-0.11	0.530	0.757
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3500	1	15.65	17.20	1.429	-	-	-0.16	0.466	0.666
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3500	1	15.65	17.20	1.429	-	-	-0.07	0.194	0.277
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3500	1	15.65	17.20	1.429	-	-	0.01	0.233	0.333
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.06	17.20	1.300	-	-	-0.11	0.274	0.356
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.06	17.20	1.300	-	-	0.14	0.260	0.338
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.06	17.20	1.300	-	-	-0.04	0.088	0.114
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.06	17.20	1.300	-	-	0.12	0.116	0.151
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.01	17.20	1.315	-	-	0.07	0.262	0.345
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.01	17.20	1.315	-	-	0.18	0.248	0.326
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	656000	3840	1	16.01	17.20	1.315	-	-	0.09	0.084	0.110
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	656000	3840	1	16.01	17.20	1.315	-	-	0.02	0.111	0.146
30	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3500	1	13.59	15.00	1.384	-	-	-0.08	0.776	**1.074**
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3500	1	13.59	15.00	1.384	-	-	0.18	0.234	0.324
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3500	1	13.59	15.00	1.384	-	-	0.01	0.286	0.396
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3500	1	13.59	15.00	1.384	-	-	0.1	0.107	0.148
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3500	1	13.50	15.00	1.413	-	-	-0.13	0.741	1.047
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3500	1	13.50	15.00	1.413	-	-	-0.14	0.223	0.315
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3500	1	13.50	15.00	1.413	-	-	-0.09	0.273	0.386
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3500	1	13.50	15.00	1.413	-	-	0.08	0.102	0.144

	FR1 n77 Part27Q	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3500	1	13.43	15.00	1.435	-	-	0.01	0.708	1.016
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	656000	3840	1	13.78	15.00	1.324	-	-	0.17	0.707	0.936
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	656000	3840	1	13.78	15.00	1.324	-	-	0.16	0.132	0.175
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	656000	3840	1	13.78	15.00	1.324	-	-	0.17	0.319	0.422
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	656000	3840	1	13.78	15.00	1.324	-	-	-0.01	0.065	0.086
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	656000	3840	1	13.71	15.00	1.346	-	-	-0.17	0.675	0.908
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	656000	3840	1	13.71	15.00	1.346	-	-	-0.18	0.126	0.170
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	656000	3840	1	13.71	15.00	1.346	-	-	0.05	0.305	0.410
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	656000	3840	1	13.71	15.00	1.346	-	-	-0.05	0.062	0.083
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	656000	3840	1	13.63	15.00	1.371	-	-	-0.17	0.645	0.884
	FR1 n77 Part27O	100M	QPSK	270	0	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	656000	3840	1	13.63	15.00	1.371	-	-	-0.18	0.291	0.399
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3500	1	13.51	14.50	1.256	-	-	0.1	0.202	0.254
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3500	1	13.51	14.50	1.256	-	-	0.12	0.231	0.290
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3500	1	13.51	14.50	1.256	-	-	0.19	0.375	0.471
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3500	1	13.51	14.50	1.256	-	-	-0.01	0.338	0.425
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	633332	3500	1	13.46	14.50	1.271	-	-	0.04	0.193	0.245
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	633332	3500	1	13.46	14.50	1.271	-	-	0.12	0.221	0.281
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	633332	3500	1	13.46	14.50	1.271	-	-	-0.11	0.358	0.455
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	633332	3500	1	13.46	14.50	1.271	-	-	-0.05	0.323	0.410
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	650000	3750	1	13.40	14.50	1.288	-	-	0.12	0.260	0.335
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	650000	3750	1	13.40	14.50	1.288	-	-	0.18	0.268	0.345
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	650000	3750	1	13.40	14.50	1.288	-	-	-0.19	0.486	0.626
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	650000	3750	1	13.40	14.50	1.288	-	-	0.18	0.413	0.532
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 9	ECI 5	650000	3750	1	13.36	14.50	1.300	-	-	-0.1	0.248	0.322
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 9	ECI 5	650000	3750	1	13.36	14.50	1.300	-	-	-0.12	0.256	0.333
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 9	ECI 5	650000	3750	1	13.36	14.50	1.300	-	-	-0.14	0.464	0.603
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 9	ECI 5	650000	3750	1	13.36	14.50	1.300	-	-	-0.06	0.394	0.512
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3500	1	13.17	14.80	1.455	-	-	0.18	0.207	0.301
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3500	1	13.17	14.80	1.455	-	-	0.01	0.041	0.060
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3500	1	13.17	14.80	1.455	-	-	-0.09	0.455	0.662
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3500	1	13.17	14.80	1.455	-	-	-0.03	0.087	0.127
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	633332	3500	1	13.12	14.80	1.472	-	-	0.16	0.198	0.292
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	633332	3500	1	13.12	14.80	1.472	-	-	0.12	0.039	0.057
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	633332	3500	1	13.12	14.80	1.472	-	-	-0.14	0.435	0.640
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	633332	3500	1	13.12	14.80	1.472	-	-	0.14	0.083	0.122
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	650000	3750	1	13.41	14.80	1.377	-	-	0.06	0.205	0.282
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	650000	3750	1	13.41	14.80	1.377	-	-	-0.16	0.030	0.041
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	650000	3750	1	13.41	14.80	1.377	-	-	0.15	0.291	0.401
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	650000	3750	1	13.41	14.80	1.377	-	-	0.02	0.058	0.080
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 8	ECI 5	650000	3750	1	13.37	14.80	1.390	-	-	-0.18	0.196	0.272
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 8	ECI 5	650000	3750	1	13.37	14.80	1.390	-	-	-0.11	0.029	0.040
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 8	ECI 5	650000	3750	1	13.37	14.80	1.390	-	-	0.02	0.278	0.386
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 8	ECI 5	650000	3750	1	13.37	14.80	1.390	-	-	-0.12	0.055	0.076

31	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3500	1	14.35	15.60	1.334	-	-	-0.18	0.804	**1.072**
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3500	1	14.35	15.60	1.334	-	-	0.1	0.632	0.843
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3500	1	14.35	15.60	1.334	-	-	0.19	0.275	0.367
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3500	1	14.35	15.60	1.334	-	-	-0.06	0.319	0.425
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3500	1	14.31	15.60	1.346	-	-	-0.12	0.764	1.028
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3500	1	14.31	15.60	1.346	-	-	0.13	0.601	0.809
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	633332	3500	1	14.31	15.60	1.346	-	-	-0.13	0.261	0.351
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	633332	3500	1	14.31	15.60	1.346	-	-	-0.09	0.303	0.408
	FR1 n78 Part27Q_HPUE	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3500	1	14.29	15.60	1.352	-	-	-0.09	0.730	0.987
	FR1 n78 Part27Q_HPUE	100M	QPSK	270	0	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	633332	3500	1	14.29	15.60	1.352	-	-	-0.03	0.574	0.776
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	1	14.49	15.60	1.291	-	-	-0.11	0.346	0.447
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	650000	3750	1	14.49	15.60	1.291	-	-	0.14	0.302	0.390
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	650000	3750	1	14.49	15.60	1.291	-	-	-0.11	0.101	0.130
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	650000	3750	1	14.49	15.60	1.291	-	-	0.16	0.128	0.165
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	650000	3750	1	14.43	15.60	1.309	-	-	-0.08	0.330	0.432
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 6	ECI 5	650000	3750	1	14.43	15.60	1.309	-	-	-0.19	0.288	0.377
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 6	ECI 5	650000	3750	1	14.43	15.60	1.309	-	-	-0.06	0.096	0.126
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 6	ECI 5	650000	3750	1	14.43	15.60	1.309	-	-	0.09	0.122	0.160
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3500	1	14.22	15.20	1.253	-	-	-0.17	0.780	0.977
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3500	1	14.22	15.20	1.253	-	-	-0.18	0.220	0.276
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3500	1	14.22	15.20	1.253	-	-	0.09	0.255	0.320
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3500	1	14.22	15.20	1.253	-	-	-0.16	0.116	0.145
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3500	1	14.15	15.20	1.274	-	-	-0.12	0.735	0.936
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	633332	3500	1	14.15	15.20	1.274	-	-	0.18	0.234	0.298
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	633332	3500	1	14.15	15.20	1.274	-	-	-0.09	0.230	0.293
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	633332	3500	1	14.15	15.20	1.274	-	-	-0.18	0.109	0.139
	FR1 n78 Part27Q_HPUE	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	633332	3500	1	13.96	15.20	1.330	-	-	-0.18	0.702	0.934
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	650000	3750	1	14.28	15.20	1.236	-	-	0.1	0.658	0.813
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	650000	3750	1	14.28	15.20	1.236	-	-	0.05	0.169	0.209
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	650000	3750	1	14.28	15.20	1.236	-	-	-0.01	0.227	0.281
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	650000	3750	1	14.28	15.20	1.236	-	-	-0.07	0.077	0.095
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	650000	3750	1	14.10	15.20	1.288	-	-	-0.14	0.628	0.809
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Right Tilted	0mm	Ant 0	ECI 5	650000	3750	1	14.10	15.20	1.288	-	-	-0.06	0.161	0.207
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Cheek	0mm	Ant 0	ECI 5	650000	3750	1	14.10	15.20	1.288	-	-	-0.06	0.217	0.280
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Left Tilted	0mm	Ant 0	ECI 5	650000	3750	1	14.10	15.20	1.288	-	-	0.1	0.074	0.095
	FR1 n78 Part27O_HPUE	100M	QPSK	270	0	DFT-30	Right Cheek	0mm	Ant 0	ECI 5	650000	3750	1	14.06	15.20	1.300	-	-	-0.08	0.600	0.780

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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																	
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Standalone/ Simultaneous(2.4G+BT)	39	2441	1	15.50	17.30	1.514	76.88	1.301	-0.08	0.117	0.230
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Standalone/ Simultaneous(2.4G+BT)	39	2441	1	15.50	17.30	1.514	76.88	1.301	0.18	0.060	0.118
32	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Standalone/ Simultaneous(2.4G+BT)	39	2441	1	15.50	17.30	1.514	76.88	1.301	0.16	0.460	**0.906**
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Standalone/ Simultaneous(2.4G+BT)	39	2441	1	15.50	17.30	1.514	76.88	1.301	0.05	0.166	0.327
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Standalone/ Simultaneous(2.4G+BT)	0	2402	1	13.70	15.50	1.514	76.88	1.301	0.17	0.411	0.809
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Standalone/ Simultaneous(2.4G+BT)	78	2480	1	13.20	15.00	1.514	76.88	1.301	0.03	0.432	0.851
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Simultaneous (5G/ WWAN +BT)	39	2441	1	13.40	14.30	1.230	76.88	1.301	0.05	0.075	0.120
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Simultaneous (5G/ WWAN +BT)	39	2441	1	13.40	14.30	1.230	76.88	1.301	0.16	0.039	0.062
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Simultaneous (5G/ WWAN +BT)	39	2441	1	13.40	14.30	1.230	76.88	1.301	0.13	0.276	0.442
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Simultaneous (5G/ WWAN +BT)	39	2441	1	13.40	14.30	1.230	76.88	1.301	-0.05	0.107	0.171
	Bluetooth	DH5 1Mbps	Right Cheek	0mm	Ant 7	Simultaneous(WWAN +2.4G/5G+BT)	39	2441	1	7.60	9.30	1.479	76.88	1.301	0.04	0.022	0.042
	Bluetooth	DH5 1Mbps	Right Tilted	0mm	Ant 7	Simultaneous(WWAN +2.4G/5G+BT)	39	2441	1	7.60	9.30	1.479	76.88	1.301	0.05	0.011	0.021
	Bluetooth	DH5 1Mbps	Left Cheek	0mm	Ant 7	Simultaneous(WWAN +2.4G/5G+BT)	39	2441	1	7.60	9.30	1.479	76.88	1.301	0.08	0.085	0.164
	Bluetooth	DH5 1Mbps	Left Tilted	0mm	Ant 7	Simultaneous(WWAN +2.4G/5G+BT)	39	2441	1	7.60	9.30	1.479	76.88	1.301	0.02	0.031	0.060
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7+12	Standalone	1	2412	1	16.40	16.70	1.071	100	1.000	-0.03	0.212	0.227
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7+12	Standalone	1	2412	1	16.40	16.70	1.071	100	1.000	-0.11	0.276	0.296
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+12	Standalone	1	2412	1	16.40	16.70	1.071	100	1.000	0.19	0.761	0.815
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7+12	Standalone	1	2412	1	16.40	16.70	1.071	100	1.000	0.01	0.449	0.481
33	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+12	Standalone	6	2437	1	15.51	16.70	1.315	100	1.000	0.16	0.772	**1.015**
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+12	Standalone	11	2462	1	16.36	16.70	1.081	100	1.000	0.02	0.777	0.840
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7+12	Simultaneous(2.4G+BT)	1	2412	1	14.38	14.70	1.077	100	1.000	-0.03	0.134	0.144
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7+12	Simultaneous(2.4G+BT)	1	2412	1	14.38	14.70	1.077	100	1.000	-0.11	0.174	0.187
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+12	Simultaneous(2.4G+BT)	1	2412	1	14.38	14.70	1.077	100	1.000	0.19	0.480	0.517
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7+12	Simultaneous(2.4G+BT)	1	2412	1	14.38	14.70	1.077	100	1.000	0.01	0.283	0.305
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7+12	Simultaneous(2.4G+ WWAN)	1	2412	1	12.89	13.20	1.074	100	1.000	-0.03	0.094	0.101
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7+12	Simultaneous(2.4G+ WWAN)	1	2412	1	12.89	13.20	1.074	100	1.000	-0.11	0.123	0.132
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+12	Simultaneous(2.4G+ WWAN)	1	2412	1	12.89	13.20	1.074	100	1.000	0.19	0.340	0.365
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7+12	Simultaneous(2.4G+ WWAN)	1	2412	1	12.89	13.20	1.074	100	1.000	0.01	0.201	0.216
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Simultaneous(2.4G+5G)	1	2412	1	13.23	13.70	1.114	100	1.000	0.04	0.109	0.121
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	Simultaneous(2.4G+5G)	1	2412	1	13.23	13.70	1.114	100	1.000	0.02	0.052	0.058
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Simultaneous(2.4G+5G)	1	2412	1	13.23	13.70	1.114	100	1.000	0.02	0.550	0.613
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	Simultaneous(2.4G+5G)	1	2412	1	13.23	13.70	1.114	100	1.000	0.04	0.153	0.170
	WLAN2.4GHz	802.11b 5.5Mbps	Left Cheek	0mm	Ant 7	Standalone/ Simultaneous(2.4G+5G)	1	2412		13.19	13.70	1.125	100	1.000	0.13	0.488	0.549
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7	Simultaneous (WWAN +2.4G+5G)	1	2412	1	8.71	9.20	1.119	100	1.000	0.13	0.039	0.044
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant 7	Simultaneous (WWAN +2.4G+5G)	1	2412	1	8.71	9.20	1.119	100	1.000	-0.19	0.018	0.020
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7	Simultaneous (WWAN +2.4G+5G)	1	2412	1	8.71	9.20	1.119	100	1.000	0	0.195	0.218
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7	Simultaneous (WWAN +2.4G+5G)	1	2412	1	8.71	9.20	1.119	100	1.000	0.15	0.054	0.060
	WLAN2.4GHz	802.11b 1Mbps	Right Cheek	0mm	Ant 7+12	Simultaneous (WWAN +2.4G+BT)	1	2412	1	10.89	11.20	1.075	100	1.000	0.02	0.062	0.067
	WLAN2.4GHz	802.11b 1Mbps	Right Tilted	0mm	Ant	Simultaneous	1	2412	1	10.89	11.20	1.075	100	1.000	0.02	0.081	0.087

					7+12	(WWAN +2.4G+BT)												
	WLAN2.4GHz	802.11b 1Mbps	Left Cheek	0mm	Ant 7+12	Simultaneous (WWAN +2.4G+BT)	1	2412	1	10.89	11.20	1.075	100	1.000	0.04	0.218	0.234
	WLAN2.4GHz	802.11b 1Mbps	Left Tilted	0mm	Ant 7+12	Simultaneous (WWAN +2.4G+BT)	1	2412	1	10.89	11.20	1.075	100	1.000	-0.18	0.132	0.142
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	Standalone	58	5290	1	16.07	16.70	1.155	86.52	1.156	-0.02	0.381	0.509
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	Standalone	58	5290	1	16.07	16.70	1.155	86.52	1.156	0.02	0.427	0.570
34	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	58	5290	1	16.07	16.70	1.155	86.52	1.156	0.13	0.626	**0.836**
	WLAN5.3GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	Standalone	58	5290	1	16.07	16.70	1.155	86.52	1.156	-0.05	0.596	0.796
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Simultaneous(2.4G+5G)	50	5250	1	12.18	12.70	1.127	100.00	1.000	0.15	0.086	0.097
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Simultaneous(2.4G+5G)	50	5250	1	12.18	12.70	1.127	100.00	1.000	0.13	0.054	0.061
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Simultaneous(2.4G+5G)	50	5250	1	12.18	12.70	1.127	100.00	1.000	0.06	0.417	0.470
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Simultaneous(2.4G+5G)	50	5250	1	12.18	12.70	1.127	100.00	1.000	0.02	0.093	0.105
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9+8	Simultaneous(WWAN +5G)	50	5250	1	12.89	13.20	1.075	100.00	1.000	0.13	0.178	0.191
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9+8	Simultaneous(WWAN +5G)	50	5250	1	12.89	13.20	1.075	100.00	1.000	-0.16	0.200	0.215
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9+8	Simultaneous(WWAN +5G)	50	5250	1	12.89	13.20	1.075	100.00	1.000	-0.05	0.292	0.314
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9+8	Simultaneous(WWAN +5G)	50	5250	1	12.89	13.20	1.075	100.00	1.000	0.07	0.279	0.300
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	50	5250	1	8.68	9.20	1.127	100.00	1.000	-0.17	0.038	0.043
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	50	5250	1	8.68	9.20	1.127	100.00	1.000	0.12	0.024	0.027
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	50	5250	1	8.68	9.20	1.127	100.00	1.000	0.02	0.186	0.210
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	50	5250	1	8.68	9.20	1.127	100.00	1.000	0.02	0.042	0.047
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	50	5250	1	10.92	11.20	1.068	100.00	1.000	0.1	0.112	0.120
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	50	5250	1	10.92	11.20	1.068	100.00	1.000	0.03	0.126	0.135
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	50	5250	1	10.92	11.20	1.068	100.00	1.000	0.06	0.184	0.196
	WLAN5.3GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	50	5250	1	10.92	11.20	1.068	100.00	1.000	-0.03	0.176	0.188
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	Standalone	122	5610	1	15.33	15.70	1.088	86.52	1.156	0.02	0.347	0.436
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	Standalone	122	5610	1	15.33	15.70	1.088	86.52	1.156	-0.08	0.356	0.448
35	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	122	5610	1	15.33	15.70	1.088	86.52	1.156	0.03	0.794	**0.999**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	Standalone	122	5610	1	15.33	15.70	1.088	86.52	1.156	-0.09	0.616	0.775
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	106	5530	1	14.42	14.70	1.067	86.52	1.156	-0.09	0.583	0.719
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Simultaneous(2.4G+5G)	114	5570	1	11.13	11.70	1.140	100.00	1.000	-0.08	0.093	0.106
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Simultaneous(2.4G+5G)	114	5570	1	11.13	11.70	1.140	100.00	1.000	0	0.060	0.068
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Simultaneous(2.4G+5G)	114	5570	1	11.13	11.70	1.140	100.00	1.000	-0.15	0.443	0.505
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Simultaneous(2.4G+5G)	114	5570	1	11.13	11.70	1.140	100.00	1.000	0.02	0.111	0.127
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9+8	Simultaneous(WWAN +5G)	114	5570	1	12.39	12.70	1.075	100.00	1.000	0.08	0.075	0.081
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9+8	Simultaneous(WWAN +5G)	114	5570	1	12.39	12.70	1.075	100.00	1.000	-0.08	0.046	0.049
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9+8	Simultaneous(WWAN +5G)	114	5570	1	12.39	12.70	1.075	100.00	1.000	-0.1	0.352	0.378
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9+8	Simultaneous(WWAN +5G)	114	5570	1	12.39	12.70	1.075	100.00	1.000	0.1	0.087	0.094
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	114	5570	1	8.53	8.70	1.040	100.00	1.000	-0.11	0.047	0.049
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	114	5570	1	8.53	8.70	1.040	100.00	1.000	-0.01	0.030	0.031
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	114	5570	1	8.53	8.70	1.040	100.00	1.000	0.04	0.222	0.231
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	114	5570	1	8.53	8.70	1.040	100.00	1.000	0.05	0.056	0.058

	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Cheek	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	114	5570	1	10.11	10.20	1.022	100.00	1.000	-0.11	0.042	0.043
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Right Tilted	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	114	5570	1	10.11	10.20	1.022	100.00	1.000	-0.01	0.026	0.027
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Cheek	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	114	5570	1	10.11	10.20	1.022	100.00	1.000	0.05	0.198	0.202
	WLAN5.5GHz	802.11ac-VHT160 MCS0	Left Tilted	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	114	5570	1	10.11	10.20	1.022	100.00	1.000	0.05	0.049	0.050
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	Standalone	155	5775	1	14.18	14.70	1.127	86.52	1.156	0.14	0.232	0.302
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	Standalone	155	5775	1	14.18	14.70	1.127	86.52	1.156	0.07	0.215	0.280
36	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	Standalone	155	5775	1	14.18	14.70	1.127	86.52	1.156	0.19	0.544	**0.709**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	Standalone	155	5775	1	14.18	14.70	1.127	86.52	1.156	-0.15	0.444	0.579
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8	Simultaneous(2.4G+5G)	155	5775	1	11.06	11.70	1.159	86.52	1.156	-0.01	0.067	0.090
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Simultaneous(2.4G+5G)	155	5775	1	11.06	11.70	1.159	86.52	1.156	0.19	0.056	0.075
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Simultaneous(2.4G+5G)	155	5775	1	11.06	11.70	1.159	86.52	1.156	0.06	0.386	0.517
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Simultaneous(2.4G+5G)	155	5775	1	11.06	11.70	1.159	86.52	1.156	0	0.063	0.084
	WLAN5.8GHz	802.11a 6Mbps	Left Cheek	0mm	Ant 8	Simultaneous(2.4G+5G)	165	5825	1	11.66	11.70	1.009	96.97	1.031	0.08	0.485	0.505
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	Simultaneous(WWAN +5G)	155	5775	1	10.66	11.20	1.132	86.52	1.156	0.03	0.111	0.145
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	Simultaneous(WWAN +5G)	155	5775	1	10.66	11.20	1.132	86.52	1.156	-0.04	0.103	0.135
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	Simultaneous(WWAN +5G)	155	5775	1	10.66	11.20	1.132	86.52	1.156	0.03	0.260	0.340
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	Simultaneous(WWAN +5G)	155	5775	1	10.66	11.20	1.132	86.52	1.156	0.04	0.212	0.278
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	155	5775	1	7.52	8.20	1.170	86.52	1.156	0.1	0.034	0.046
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	155	5775	1	7.52	8.20	1.170	86.52	1.156	0.06	0.028	0.038
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	155	5775	1	7.52	8.20	1.170	86.52	1.156	-0.01	0.193	0.261
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 8	Simultaneous (WWAN +2.4G+5G)	155	5775	1	7.52	8.20	1.170	86.52	1.156	0.15	0.032	0.043
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Cheek	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	155	5775	1	8.66	9.20	1.134	86.52	1.156	-0.01	0.070	0.092
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Tilted	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	155	5775	1	8.66	9.20	1.134	86.52	1.156	-0.03	0.065	0.085
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Cheek	0mm	Ant 9+8	Simultaneous (WWAN +5G+BT)	155	5775	1	8.66	9.20	1.134	86.52	1.156	0.08	0.164	0.215
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Left Tilted	0mm	Ant 9+8	Simultaneous (WWAN+5G+BT)	155	5775	1	8.66	9.20	1.134	86.52	1.156	-0.19	0.134	0.176

15.2 Hotspot SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
750 MHz																					
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23095	707.5	1	18.62	19.40	1.197	-	-	0	0.074	0.089
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23095	707.5	1	18.62	19.40	1.197	-	-	-0.15	0.080	0.096
	LTE Band 12	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	23095	707.5	1	18.62	19.40	1.197	-	-	0.04	0.118	0.141
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 8	23095	707.5	1	18.59	19.40	1.205	-	-	0	0.073	0.088
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 8	23095	707.5	1	18.59	19.40	1.205	-	-	-0.08	0.081	0.098
	LTE Band 12	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	ECI 8	23095	707.5	1	18.59	19.40	1.205	-	-	0.08	0.115	0.139
	LTE Band 12	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23095	707.5	1	19.58	20.30	1.180	-	-	-0.09	0.103	0.122
	LTE Band 12	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23095	707.5	1	19.58	20.30	1.180	-	-	-0.12	0.112	0.132
37	LTE Band 12	10M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	23095	707.5	1	19.58	20.30	1.180	-	-	0.06	0.135	**0.159**
	LTE Band 12	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	23095	707.5	1	19.58	20.30	1.180	-	-	-0.03	0.038	0.045
	LTE Band 12	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 8	23095	707.5	1	19.48	20.30	1.208	-	-	-0.15	0.100	0.121
	LTE Band 12	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 8	23095	707.5	1	19.48	20.30	1.208	-	-	-0.06	0.113	0.136
	LTE Band 12	10M	QPSK	25	0	-	Right Side	10mm	Ant 1	ECI 8	23095	707.5	1	19.48	20.30	1.208	-	-	0.08	0.125	0.151
	LTE Band 12	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 1	ECI 8	23095	707.5	1	19.48	20.30	1.208	-	-	-0.06	0.038	0.046
	LTE Band 17	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23790	710	1	19.86	20.40	1.132	-	-	0.07	0.155	0.176
	LTE Band 17	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23790	710	1	19.86	20.40	1.132	-	-	-0.04	0.160	0.181
38	LTE Band 17	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	23790	710	1	19.86	20.40	1.132	-	-	0.14	0.250	**0.283**
	LTE Band 17	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 8	23790	710	1	19.84	20.40	1.138	-	-	-0.13	0.146	0.166
	LTE Band 17	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 8	23790	710	1	19.84	20.40	1.138	-	-	0.09	0.151	0.172
	LTE Band 17	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	ECI 8	23790	710	1	19.84	20.40	1.138	-	-	0.15	0.236	0.268
	LTE Band 17	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23790	710	1	20.73	21.30	1.140	-	-	0.1	0.169	0.193
	LTE Band 17	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23790	710	1	20.73	21.30	1.140	-	-	-0.02	0.141	0.161
	LTE Band 17	10M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	23790	710	1	20.73	21.30	1.140	-	-	-0.03	0.203	0.231
	LTE Band 17	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	23790	710	1	20.73	21.30	1.140	-	-	0.08	0.142	0.162
	LTE Band 17	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 8	23790	710	1	20.70	21.30	1.148	-	-	0.08	0.161	0.185
	LTE Band 17	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 8	23790	710	1	20.70	21.30	1.148	-	-	0.02	0.135	0.155
	LTE Band 17	10M	QPSK	25	0	-	Right Side	10mm	Ant 1	ECI 8	23790	710	1	20.70	21.30	1.148	-	-	0.13	0.194	0.223
	LTE Band 17	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 1	ECI 8	23790	710	1	20.70	21.30	1.148	-	-	-0.08	0.136	0.156
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23230	782	1	21.05	21.80	1.189	-	-	0.02	0.106	0.126
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23230	782	1	21.05	21.80	1.189	-	-	0	0.113	0.134
	LTE Band 13	10M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	23230	782	1	21.05	21.80	1.189	-	-	0.19	0.192	0.228
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 0	ECI 8	23230	782	1	21.02	21.80	1.197	-	-	-0.14	0.098	0.117
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 0	ECI 8	23230	782	1	21.02	21.80	1.197	-	-	-0.14	0.103	0.123
	LTE Band 13	10M	QPSK	25	0	-	Left Side	10mm	Ant 0	ECI 8	23230	782	1	21.02	21.80	1.197	-	-	-0.07	0.175	0.209
	LTE Band 13	10M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23230	782	1	23.00	23.80	1.202	-	-	0.03	0.244	0.293
	LTE Band 13	10M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23230	782	1	23.00	23.80	1.202	-	-	0	0.280	0.337
39	LTE Band 13	10M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	23230	782	1	23.00	23.80	1.202	-	-	0.19	0.394	**0.474**
	LTE Band 13	10M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	23230	782	1	23.00	23.80	1.202	-	-	-0.02	0.135	0.162
	LTE Band 13	10M	QPSK	25	0	-	Front	10mm	Ant 1	ECI 8	23230	782	1	22.93	23.80	1.222	-	-	-0.09	0.219	0.268
	LTE Band 13	10M	QPSK	25	0	-	Back	10mm	Ant 1	ECI 8	23230	782	1	22.93	23.80	1.222	-	-	-0.17	0.252	0.308
	LTE Band 13	10M	QPSK	25	0	-	Right Side	10mm	Ant 1	ECI 8	23230	782	1	22.93	23.80	1.222	-	-	-0.14	0.352	0.430
	LTE Band 13	10M	QPSK	25	0	-	Bottom Side	10mm	Ant 1	ECI 8	23230	782	1	22.93	23.80	1.222	-	-	-0.07	0.123	0.150
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	ECI 8	141500	707.5	1	16.64	18.00	1.368	-	-	-0.06	0.034	0.047
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	ECI 8	141500	707.5	1	16.64	18.00	1.368	-	-	0.16	0.044	0.060
	FR1 n12	15M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	ECI 8	141500	707.5	1	16.64	18.00	1.368	-	-	0.19	0.062	0.085
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	10mm	Ant 0	ECI 8	141500	707.5	1	16.58	18.00	1.387	-	-	-0.14	0.032	0.044
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	10mm	Ant 0	ECI 8	141500	707.5	1	16.58	18.00	1.387	-	-	-0.14	0.042	0.058
	FR1 n12	15M	QPSK	36	22	DFT-15	Left Side	10mm	Ant 0	ECI 8	141500	707.5	1	16.58	18.00	1.387	-	-	0.14	0.059	0.082
	FR1 n12	15M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	ECI 8	141500	707.5	1	17.38	18.70	1.355	-	-	0.18	0.087	0.118
	FR1 n12	15M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	ECI 8	141500	707.5	1	17.38	18.70	1.355	-	-	0.06	0.085	0.115

41	FR1 n12	15M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 1	ECI 8	141500	707.5	1	17.38	18.70	1.355	-	-	-0.03	0.090	**0.122**
	FR1 n12	15M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	141500	707.5	1	17.38	18.70	1.355	-	-	-0.16	0.008	0.011
	FR1 n12	15M	QPSK	36	22	DFT-15	Front	10mm	Ant 1	ECI 8	141500	707.5	1	17.35	18.70	1.365	-	-	0	0.083	0.113
	FR1 n12	15M	QPSK	36	22	DFT-15	Back	10mm	Ant 1	ECI 8	141500	707.5	1	17.35	18.70	1.365	-	-	0.05	0.081	0.111
	FR1 n12	15M	QPSK	36	22	DFT-15	Right Side	10mm	Ant 1	ECI 8	141500	707.5	1	17.35	18.70	1.365	-	-	0.09	0.086	0.117
	FR1 n12	15M	QPSK	36	22	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	141500	707.5	1	17.35	18.70	1.365	-	-	0.19	0.007	0.010
835 MHz																					
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	10mm	Ant 0	ECI 8	189	836.4	1	26.40	27.10	1.175	-	-	0.11	0.545	0.640
	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	10mm	Ant 0	ECI 8	189	836.4	1	26.40	27.10	1.175	-	-	-0.03	0.481	0.565
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Side	10mm	Ant 0	ECI 8	189	836.4	1	26.40	27.10	1.175	-	-	-0.08	0.695	0.817
	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Side	10mm	Ant 0	ECI 8	128	824.2	1	26.16	27.10	1.242	-	-	0.03	0.525	0.652
42	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Side	10mm	Ant 0	ECI 8	251	848.8	1	26.31	27.10	1.199	-	-	0.06	0.702	**0.842**
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	10mm	Ant 1	ECI 8	189	836.4	1	27.83	29.00	1.309	-	-	-0.08	0.215	0.281
	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	10mm	Ant 1	ECI 8	189	836.4	1	27.83	29.00	1.309	-	-	-0.11	0.252	0.330
	GSM850	-	-	-	-	GPRS (3Tx slots)	Right Side	10mm	Ant 1	ECI 8	189	836.4	1	27.83	29.00	1.309	-	-	-0.02	0.362	0.474
	GSM850	-	-	-	-	GPRS (3Tx slots)	Bottom Side	10mm	Ant 1	ECI 8	189	836.4	1	27.83	29.00	1.309	-	-	0.05	0.139	0.182
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 0	ECI 8	4182	836.4	1	21.04	21.50	1.112	-	-	0	0.378	0.420
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 0	ECI 8	4182	836.4	1	21.04	21.50	1.112	-	-	-0.11	0.357	0.397
43	WCDMA V	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 0	ECI 8	4182	836.4	1	21.04	21.50	1.112	-	-	0.05	0.569	**0.633**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 1	ECI 8	4182	836.4	1	24.34	24.80	1.112	-	-	0.05	0.267	0.297
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 1	ECI 8	4182	836.4	1	24.34	24.80	1.112	-	-	-0.12	0.332	0.369
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 1	ECI 8	4182	836.4	1	24.34	24.80	1.112	-	-	0.16	0.465	0.517
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 1	ECI 8	4182	836.4	1	24.34	24.80	1.112	-	-	-0.06	0.181	0.201
	LTE Band 18	15M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	23925	822.5	1	20.87	21.10	1.054	-	-	-0.02	0.280	0.295
	LTE Band 18	15M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	23925	822.5	1	20.87	21.10	1.054	-	-	0.03	0.293	0.309
44	LTE Band 18	15M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	23925	822.5	1	20.87	21.10	1.054	-	-	0.13	0.400	**0.422**
	LTE Band 18	15M	QPSK	36	0	-	Front	10mm	Ant 0	ECI 8	23925	822.5	1	20.77	21.10	1.079	-	-	-0.04	0.303	0.327
	LTE Band 18	15M	QPSK	36	0	-	Back	10mm	Ant 0	ECI 8	23925	822.5	1	20.77	21.10	1.079	-	-	0.03	0.313	0.338
	LTE Band 18	15M	QPSK	36	0	-	Left Side	10mm	Ant 0	ECI 8	23925	822.5	1	20.77	21.10	1.079	-	-	0.02	0.381	0.411
	LTE Band 18	15M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	23925	822.5	1	24.19	24.50	1.074	-	-	0.07	0.307	0.330
	LTE Band 18	15M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	23925	822.5	1	24.19	24.50	1.074	-	-	-0.13	0.369	0.396
	LTE Band 18	15M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	23925	822.5	1	24.19	24.50	1.074	-	-	0.17	0.382	0.410
	LTE Band 18	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	23925	822.5	1	24.19	24.50	1.074	-	-	-0.06	0.158	0.170
	LTE Band 18	15M	QPSK	36	0	-	Front	10mm	Ant 1	ECI 8	23925	822.5	1	24.15	24.50	1.084	-	-	0.14	0.293	0.318
	LTE Band 18	15M	QPSK	36	0	-	Back	10mm	Ant 1	ECI 8	23925	822.5	1	24.15	24.50	1.084	-	-	-0.1	0.352	0.382
	LTE Band 18	15M	QPSK	36	0	-	Right Side	10mm	Ant 1	ECI 8	23925	822.5	1	24.15	24.50	1.084	-	-	-0.02	0.365	0.396
	LTE Band 18	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 1	ECI 8	23925	822.5	1	24.15	24.50	1.084	-	-	0.15	0.151	0.164
	LTE Band 19	15M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	24075	837.5	1	18.58	18.80	1.052	-	-	0.06	0.254	0.267
	LTE Band 19	15M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	24075	837.5	1	18.58	18.80	1.052	-	-	0.16	0.263	0.277
45	LTE Band 19	15M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	24075	837.5	1	18.58	18.80	1.052	-	-	-0.04	0.346	**0.364**
	LTE Band 19	15M	QPSK	36	0	-	Front	10mm	Ant 0	ECI 8	24075	837.5	1	18.45	18.80	1.084	-	-	0.16	0.243	0.263
	LTE Band 19	15M	QPSK	36	0	-	Back	10mm	Ant 0	ECI 8	24075	837.5	1	18.45	18.80	1.084	-	-	-0.15	0.251	0.272
	LTE Band 19	15M	QPSK	36	0	-	Left Side	10mm	Ant 0	ECI 8	24075	837.5	1	18.45	18.80	1.084	-	-	-0.03	0.330	0.358
	LTE Band 19	15M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	24075	837.5	1	22.62	23.00	1.091	-	-	-0.16	0.167	0.182
	LTE Band 19	15M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	24075	837.5	1	22.62	23.00	1.091	-	-	-0.02	0.209	0.228
	LTE Band 19	15M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	24075	837.5	1	22.62	23.00	1.091	-	-	0.16	0.226	0.247
	LTE Band 19	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	24075	837.5	1	22.62	23.00	1.091	-	-	-0.01	0.118	0.129
	LTE Band 19	15M	QPSK	36	0	-	Front	10mm	Ant 1	ECI 8	24075	837.5	1	22.57	23.00	1.104	-	-	0.13	0.159	0.176
	LTE Band 19	15M	QPSK	36	0	-	Back	10mm	Ant 1	ECI 8	24075	837.5	1	22.57	23.00	1.104	-	-	-0.07	0.200	0.221
	LTE Band 19	15M	QPSK	36	0	-	Right Side	10mm	Ant 1	ECI 8	24075	837.5	1	22.57	23.00	1.104	-	-	0.15	0.216	0.238
	LTE Band 19	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 1	ECI 8	24075	837.5	1	22.57	23.00	1.104	-	-	0.14	0.113	0.125
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 0	ECI 8	26865	831.5	1	17.38	17.80	1.102	-	-	0.15	0.131	0.144
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 0	ECI 8	26865	831.5	1	17.38	17.80	1.102	-	-	0.1	0.141	0.155
	LTE Band 26	15M	QPSK	1	0	-	Left Side	10mm	Ant 0	ECI 8	26865	831.5	1	17.38	17.80	1.102	-	-	0.03	0.232	0.256
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 0	ECI 8	26865	831.5	1	17.33	17.80	1.114	-	-	-0.05	0.125	0.139
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 0	ECI 8	26865	831.5	1	17.33	17.80	1.114	-	-	-0.18	0.135	0.150

	LTE Band 26	15M	QPSK	36	0	-	Left Side	10mm	Ant 0	ECI 8	26865	831.5	1	17.33	17.80	1.114	-	-	0.12	0.222	0.247
	LTE Band 26	15M	QPSK	1	0	-	Front	10mm	Ant 1	ECI 8	26865	831.5	1	22.14	22.50	1.086	-	-	-0.14	0.179	0.194
	LTE Band 26	15M	QPSK	1	0	-	Back	10mm	Ant 1	ECI 8	26865	831.5	1	22.14	22.50	1.086	-	-	0.06	0.224	0.243
46	LTE Band 26	15M	QPSK	1	0	-	Right Side	10mm	Ant 1	ECI 8	26865	831.5	1	22.14	22.50	1.086	-	-	0.03	0.304	**0.330**
	LTE Band 26	15M	QPSK	1	0	-	Bottom Side	10mm	Ant 1	ECI 8	26865	831.5	1	22.14	22.50	1.086	-	-	-0.01	0.124	0.135
	LTE Band 26	15M	QPSK	36	0	-	Front	10mm	Ant 1	ECI 8	26865	831.5	1	22.06	22.50	1.107	-	-	0.1	0.174	0.193
	LTE Band 26	15M	QPSK	36	0	-	Back	10mm	Ant 1	ECI 8	26865	831.5	1	22.06	22.50	1.107	-	-	-0.12	0.224	0.248
	LTE Band 26	15M	QPSK	36	0	-	Right Side	10mm	Ant 1	ECI 8	26865	831.5	1	22.06	22.50	1.107	-	-	-0.12	0.297	0.329
	LTE Band 26	15M	QPSK	36	0	-	Bottom Side	10mm	Ant 1	ECI 8	26865	831.5	1	22.06	22.50	1.107	-	-	0.18	0.124	0.137
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	ECI 8	167300	836.5	1	19.81	21.20	1.377	-	-	0.14	0.279	0.384
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	ECI 8	167300	836.5	1	19.81	21.20	1.377	-	-	-0.05	0.311	0.428
47	FR1 n5	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	ECI 8	167300	836.5	1	19.81	21.20	1.377	-	-	0.02	0.436	**0.600**
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	ECI 8	167300	836.5	1	19.74	21.20	1.400	-	-	-0.09	0.289	0.404
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	ECI 8	167300	836.5	1	19.74	21.20	1.400	-	-	0.16	0.317	0.444
	FR1 n5	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	ECI 8	167300	836.5	1	19.74	21.20	1.400	-	-	-0.13	0.426	0.596
	FR1 n5	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	ECI 8	167300	836.5	1	23.14	24.20	1.276	-	-	0.01	0.240	0.306
	FR1 n5	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	ECI 8	167300	836.5	1	23.14	24.20	1.276	-	-	-0.07	0.285	0.364
	FR1 n5	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 1	ECI 8	167300	836.5	1	23.14	24.20	1.276	-	-	-0.17	0.334	0.426
	FR1 n5	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	167300	836.5	1	23.14	24.20	1.276	-	-	0.17	0.144	0.184
	FR1 n5	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	ECI 8	167300	836.5	1	23.07	24.20	1.297	-	-	-0.06	0.229	0.297
	FR1 n5	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	ECI 8	167300	836.5	1	23.07	24.20	1.297	-	-	0	0.272	0.353
	FR1 n5	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 1	ECI 8	167300	836.5	1	23.07	24.20	1.297	-	-	0.07	0.319	0.414
	FR1 n5	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	167300	836.5	1	23.07	24.20	1.297	-	-	-0.01	0.138	0.179
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 0	ECI 8	166300	831.5	1	19.92	21.20	1.343	-	-	-0.01	0.306	0.411
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 0	ECI 8	166300	831.5	1	19.92	21.20	1.343	-	-	0.14	0.293	0.393
48	FR1 n26	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 0	ECI 8	166300	831.5	1	19.92	21.20	1.343	-	-	-0.18	0.426	**0.572**
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 0	ECI 8	166300	831.5	1	19.89	21.20	1.352	-	-	-0.13	0.292	0.395
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 0	ECI 8	166300	831.5	1	19.89	21.20	1.352	-	-	-0.12	0.280	0.379
	FR1 n26	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 0	ECI 8	166300	831.5	1	19.89	21.20	1.352	-	-	-0.17	0.407	0.550
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 1	ECI 8	166300	831.5	1	22.22	23.20	1.253	-	-	0	0.155	0.194
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 1	ECI 8	166300	831.5	1	22.22	23.20	1.253	-	-	-0.02	0.194	0.243
	FR1 n26	20M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 1	ECI 8	166300	831.5	1	22.22	23.20	1.253	-	-	0.14	0.220	0.276
	FR1 n26	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	166300	831.5	1	22.22	23.20	1.253	-	-	-0.06	0.096	0.120
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 1	ECI 8	166300	831.5	1	22.14	23.20	1.276	-	-	-0.01	0.148	0.189
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 1	ECI 8	166300	831.5	1	22.14	23.20	1.276	-	-	0.19	0.185	0.236
	FR1 n26	20M	QPSK	50	28	DFT-15	Right Side	10mm	Ant 1	ECI 8	166300	831.5	1	22.14	23.20	1.276	-	-	-0.11	0.210	0.268
	FR1 n26	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 1	ECI 8	166300	831.5	1	22.14	23.20	1.276	-	-	0.14	0.092	0.117
1750 MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	ECI 8	1413	1732.6	1	18.95	19.60	1.161	-	-	0.15	0.194	0.225
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	ECI 8	1413	1732.6	1	18.95	19.60	1.161	-	-	-0.12	0.225	0.261
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 5	ECI 8	1413	1732.6	1	18.95	19.60	1.161	-	-	0.07	0.076	0.088
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	ECI 8	1413	1732.6	1	18.95	19.60	1.161	-	-	0.02	0.384	0.446
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 6	ECI 8	1413	1732.6	1	18.85	19.20	1.084	-	-	-0.07	0.185	0.201
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 6	ECI 8	1413	1732.6	1	18.85	19.20	1.084	-	-	0.01	0.253	0.274
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 6	ECI 8	1413	1732.6	1	18.85	19.20	1.084	-	-	-0.19	0.109	0.118
52	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 6	ECI 8	1413	1732.6	1	18.85	19.20	1.084	-	-	-0.13	0.432	**0.468**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 7	ECI 8	1413	1732.6	1	16.37	16.70	1.079	-	-	0.16	0.063	0.068
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 7	ECI 8	1413	1732.6	1	16.37	16.70	1.079	-	-	-0.11	0.072	0.078
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Right Side	10mm	Ant 7	ECI 8	1413	1732.6	1	16.37	16.70	1.079	-	-	-0.04	0.140	0.151
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 7	ECI 8	1413	1732.6	1	16.37	16.70	1.079	-	-	-0.1	0.005	0.005
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 11	ECI 8	1413	1732.6	1	18.98	19.40	1.102	-	-	0.09	0.063	0.069
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 11	ECI 8	1413	1732.6	1	18.98	19.40	1.102	-	-	0.03	0.182	0.200
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 11	ECI 8	1413	1732.6	1	18.98	19.40	1.102	-	-	-0.1	0.235	0.259
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 11	ECI 8	1413	1732.6	1	18.98	19.40	1.102	-	-	-0.01	0.068	0.075
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	20175	1732.5	1	19.11	20.20	1.285	-	-	-0.01	0.201	0.258
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	20175	1732.5	1	19.11	20.20	1.285	-	-	-0.03	0.226	0.290

	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	20175	1732.5	1	19.11	20.20	1.285	-	-	-0.16	0.083	0.107
	LTE Band 4	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	20175	1732.5	1	19.11	20.20	1.285	-	-	-0.19	0.294	0.378
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	20175	1732.5	1	19.08	20.20	1.294	-	-	-0.16	0.192	0.248
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	20175	1732.5	1	19.08	20.20	1.294	-	-	-0.06	0.216	0.280
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	20175	1732.5	1	19.08	20.20	1.294	-	-	-0.1	0.079	0.102
	LTE Band 4	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	20175	1732.5	1	19.08	20.20	1.294	-	-	-0.11	0.281	0.364
	LTE Band 4	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	20175	1732.5	1	19.26	20.20	1.242	-	-	0.07	0.266	0.330
	LTE Band 4	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	20175	1732.5	1	19.26	20.20	1.242	-	-	-0.18	0.354	0.440
	LTE Band 4	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	20175	1732.5	1	19.26	20.20	1.242	-	-	-0.19	0.122	0.151
53	LTE Band 4	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	20175	1732.5	1	19.26	20.20	1.242	-	-	-0.15	0.484	**0.601**
	LTE Band 4	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	20175	1732.5	1	19.22	20.20	1.253	-	-	-0.06	0.276	0.346
	LTE Band 4	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	20175	1732.5	1	19.22	20.20	1.253	-	-	0.19	0.370	0.464
	LTE Band 4	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	20175	1732.5	1	19.22	20.20	1.253	-	-	-0.13	0.127	0.159
	LTE Band 4	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	20175	1732.5	1	19.22	20.20	1.253	-	-	-0.1	0.468	0.586
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	132322	1745	1	19.20	20.10	1.230	-	-	-0.09	0.209	0.257
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	132322	1745	1	19.20	20.10	1.230	-	-	-0.17	0.246	0.303
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	132322	1745	1	19.20	20.10	1.230	-	-	-0.12	0.079	0.097
	LTE Band 66	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	132322	1745	1	19.20	20.10	1.230	-	-	-0.14	0.411	0.506
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	132322	1745	1	19.19	20.10	1.233	-	-	0.1	0.221	0.273
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	132322	1745	1	19.19	20.10	1.233	-	-	-0.01	0.253	0.312
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	132322	1745	1	19.19	20.10	1.233	-	-	-0.08	0.081	0.100
	LTE Band 66	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	132322	1745	1	19.19	20.10	1.233	-	-	-0.02	0.403	0.497
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	132322	1745	1	18.92	20.00	1.282	-	-	0.14	0.178	0.228
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	132322	1745	1	18.92	20.00	1.282	-	-	0.04	0.239	0.306
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	132322	1745	1	18.92	20.00	1.282	-	-	0.09	0.090	0.115
54	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	132322	1745	1	18.92	20.00	1.282	-	-	0.12	0.488	**0.626**
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	132322	1745	1	18.78	20.00	1.324	-	-	0.03	0.190	0.252
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	132322	1745	1	18.78	20.00	1.324	-	-	0.05	0.256	0.339
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	132322	1745	1	18.78	20.00	1.324	-	-	0.15	0.093	0.123
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	132322	1745	1	18.78	20.00	1.324	-	-	-0.18	0.465	0.616
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	132322	1745	1	19.78	20.30	1.127	-	-	0.08	0.131	0.148
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	132322	1745	1	19.78	20.30	1.127	-	-	-0.09	0.147	0.166
	LTE Band 66	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	132322	1745	1	19.78	20.30	1.127	-	-	-0.03	0.262	0.295
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	132322	1745	1	19.78	20.30	1.127	-	-	-0.12	0.027	0.030
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	132322	1745	1	19.75	20.30	1.135	-	-	-0.05	0.125	0.142
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	132322	1745	1	19.75	20.30	1.135	-	-	-0.13	0.140	0.159
	LTE Band 66	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	132322	1745	1	19.75	20.30	1.135	-	-	-0.07	0.250	0.284
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	132322	1745	1	19.75	20.30	1.135	-	-	0.01	0.026	0.030
	LTE Band 66	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	132322	1745	1	21.77	22.70	1.239	-	-	0.12	0.127	0.157
	LTE Band 66	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	132322	1745	1	21.77	22.70	1.239	-	-	-0.09	0.166	0.206
	LTE Band 66	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	132322	1745	1	21.77	22.70	1.239	-	-	-0.08	0.202	0.250
	LTE Band 66	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	132322	1745	1	21.77	22.70	1.239	-	-	-0.06	0.051	0.063
	LTE Band 66	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	132322	1745	1	21.74	22.70	1.247	-	-	0.16	0.116	0.145
	LTE Band 66	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	132322	1745	1	21.74	22.70	1.247	-	-	-0.07	0.153	0.191
	LTE Band 66	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	132322	1745	1	21.74	22.70	1.247	-	-	0.18	0.192	0.239
	LTE Band 66	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	132322	1745	1	21.74	22.70	1.247	-	-	0.15	0.049	0.061
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	349000	1745	1	19.62	21.10	1.406	-	-	-0.16	0.365	0.513
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	349000	1745	1	19.62	21.10	1.406	-	-	-0.12	0.446	0.627
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	ECI 8	349000	1745	1	19.62	21.10	1.406	-	-	-0.11	0.191	0.269
	FR1 n66	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	349000	1745	1	19.62	21.10	1.406	-	-	0.06	0.459	0.645
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	ECI 8	349000	1745	1	19.54	21.10	1.432	-	-	0.16	0.349	0.500
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	ECI 8	349000	1745	1	19.54	21.10	1.432	-	-	-0.07	0.426	0.610
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 5	ECI 8	349000	1745	1	19.54	21.10	1.432	-	-	-0.08	0.182	0.261
	FR1 n66	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	349000	1745	1	19.54	21.10	1.432	-	-	0.1	0.438	0.627
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	ECI 8	349000	1745	1	19.36	20.70	1.361	-	-	0.03	0.325	0.442
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	ECI 8	349000	1745	1	19.36	20.70	1.361	-	-	-0.06	0.410	0.558

	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	ECI 8	349000	1745	1	19.36	20.70	1.361	-	-	-0.02	0.172	0.234
55	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	ECI 8	349000	1745	1	19.36	20.70	1.361	-	-	0.12	0.502	**0.683**
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 6	ECI 8	349000	1745	1	19.30	20.70	1.380	-	-	0.16	0.310	0.428
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 6	ECI 8	349000	1745	1	19.30	20.70	1.380	-	-	0	0.393	0.542
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 6	ECI 8	349000	1745	1	19.30	20.70	1.380	-	-	-0.08	0.150	0.207
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 6	ECI 8	349000	1745	1	19.30	20.70	1.380	-	-	0.05	0.491	0.678
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 7	ECI 8	349000	1745	1	20.27	21.40	1.297	-	-	0.07	0.180	0.233
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 7	ECI 8	349000	1745	1	20.27	21.40	1.297	-	-	0.06	0.195	0.253
	FR1 n66	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 7	ECI 8	349000	1745	1	20.27	21.40	1.297	-	-	-0.04	0.255	0.331
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 7	ECI 8	349000	1745	1	20.27	21.40	1.297	-	-	-0.04	0.046	0.060
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 7	ECI 8	349000	1745	1	20.22	21.40	1.312	-	-	0.08	0.172	0.226
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 7	ECI 8	349000	1745	1	20.22	21.40	1.312	-	-	-0.13	0.186	0.244
	FR1 n66	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 7	ECI 8	349000	1745	1	20.22	21.40	1.312	-	-	0.08	0.244	0.320
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 7	ECI 8	349000	1745	1	20.22	21.40	1.312	-	-	-0.14	0.044	0.058
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 11	ECI 8	349000	1745	1	22.92	24.20	1.343	-	-	-0.13	0.173	0.232
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 11	ECI 8	349000	1745	1	22.92	24.20	1.343	-	-	0	0.229	0.307
	FR1 n66	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 11	ECI 8	349000	1745	1	22.92	24.20	1.343	-	-	0.06	0.239	0.321
	FR1 n66	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 11	ECI 8	349000	1745	1	22.92	24.20	1.343	-	-	0.06	0.060	0.081
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 11	ECI 8	349000	1745	1	22.88	24.20	1.355	-	-	0.01	0.165	0.224
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 11	ECI 8	349000	1745	1	22.88	24.20	1.355	-	-	0.16	0.219	0.297
	FR1 n66	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 11	ECI 8	349000	1745	1	22.88	24.20	1.355	-	-	-0.12	0.228	0.309
	FR1 n66	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 11	ECI 8	349000	1745	1	22.88	24.20	1.355	-	-	0.07	0.057	0.077
1900 MHz																					
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	10mm	Ant 5	ECI 8	810	1909.8	1	25.71	27.20	1.409	-	-	-0.06	0.358	0.505
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	10mm	Ant 5	ECI 8	810	1909.8	1	25.71	27.20	1.409	-	-	-0.09	0.427	0.602
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Side	10mm	Ant 5	ECI 8	810	1909.8	1	25.71	27.20	1.409	-	-	-0.1	0.154	0.217
56	GSM1900	-	-	-	-	GPRS (2Tx slots)	Bottom Side	10mm	Ant 5	ECI 8	810	1909.8	1	25.71	27.20	1.409	-	-	0.03	0.578	**0.815**
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Bottom Side	10mm	Ant 5	ECI 8	512	1850.2	1	25.70	27.20	1.413	-	-	-0.05	0.531	0.750
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Bottom Side	10mm	Ant 5	ECI 8	661	1880	1	25.60	27.20	1.445	-	-	-0.02	0.561	0.811
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	10mm	Ant 6	ECI 8	810	1909.8	1	23.82	25.30	1.406	-	-	-0.08	0.288	0.405
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	10mm	Ant 6	ECI 8	810	1909.8	1	23.82	25.30	1.406	-	-	0.01	0.390	0.548
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Left Side	10mm	Ant 6	ECI 8	810	1909.8	1	23.82	25.30	1.406	-	-	-0.12	0.111	0.156
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Top Side	10mm	Ant 6	ECI 8	810	1909.8	1	23.82	25.30	1.406	-	-	-0.19	0.554	0.779
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 5	ECI 8	9400	1880	1	19.64	20.00	1.086	-	-	0	0.256	0.278
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 5	ECI 8	9400	1880	1	19.64	20.00	1.086	-	-	0.09	0.303	0.329
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 5	ECI 8	9400	1880	1	19.64	20.00	1.086	-	-	0.18	0.093	0.101
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Bottom Side	10mm	Ant 5	ECI 8	9400	1880	1	19.64	20.00	1.086	-	-	-0.03	0.418	0.454
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	10mm	Ant 6	ECI 8	9400	1880	1	17.60	17.70	1.023	-	-	0.03	0.226	0.231
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	10mm	Ant 6	ECI 8	9400	1880	1	17.60	17.70	1.023	-	-	-0.17	0.299	0.306
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Left Side	10mm	Ant 6	ECI 8	9400	1880	1	17.60	17.70	1.023	-	-	-0.08	0.109	0.112
57	WCDMA II	-	-	-	-	RMC 12.2Kbps	Top Side	10mm	Ant 6	ECI 8	9400	1880	1	17.60	17.70	1.023	-	-	0.01	0.535	**0.547**
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	18900	1880	1	19.98	20.70	1.180	-	-	0.05	0.300	0.354
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	18900	1880	1	19.98	20.70	1.180	-	-	-0.12	0.362	0.427
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	18900	1880	1	19.98	20.70	1.180	-	-	0	0.107	0.126
58	LTE Band 2	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	18900	1880	1	19.98	20.70	1.180	-	-	-0.02	0.598	**0.706**
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	18900	1880	1	19.84	20.70	1.219	-	-	-0.13	0.302	0.368
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	18900	1880	1	19.84	20.70	1.219	-	-	-0.02	0.363	0.442
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	18900	1880	1	19.84	20.70	1.219	-	-	0.18	0.107	0.130
	LTE Band 2	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	18900	1880	1	19.84	20.70	1.219	-	-	0.01	0.455	0.555
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	18900	1880	1	17.56	18.00	1.107	-	-	0.08	0.212	0.235
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	18900	1880	1	17.56	18.00	1.107	-	-	0.02	0.269	0.298
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	18900	1880	1	17.56	18.00	1.107	-	-	-0.01	0.095	0.105
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	18900	1880	1	17.56	18.00	1.107	-	-	-0.09	0.498	0.551
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	18900	1880	1	17.54	18.00	1.112	-	-	-0.06	0.202	0.225
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	18900	1880	1	17.54	18.00	1.112	-	-	-0.14	0.257	0.286
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	18900	1880	1	17.54	18.00	1.112	-	-	-0.01	0.091	0.101

	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	18900	1880	1	17.54	18.00	1.112	-	-	0.16	0.476	0.529
	LTE Band 2	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	18900	1880	1	22.02	23.00	1.253	-	-	-0.08	0.221	0.277
	LTE Band 2	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	18900	1880	1	22.02	23.00	1.253	-	-	0.01	0.287	0.360
	LTE Band 2	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	18900	1880	1	22.02	23.00	1.253	-	-	-0.14	0.314	0.393
	LTE Band 2	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	18900	1880	1	22.02	23.00	1.253	-	-	0.04	0.116	0.145
	LTE Band 2	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	18900	1880	1	21.45	23.00	1.429	-	-	-0.04	0.188	0.269
	LTE Band 2	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	18900	1880	1	21.45	23.00	1.429	-	-	0.08	0.249	0.356
	LTE Band 2	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	18900	1880	1	21.45	23.00	1.429	-	-	0.16	0.274	0.392
	LTE Band 2	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	18900	1880	1	21.45	23.00	1.429	-	-	-0.14	0.090	0.129
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	376000	1880	1	19.96	21.40	1.393	-	-	-0.15	0.485	0.676
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	376000	1880	1	19.96	21.40	1.393	-	-	0.13	0.525	0.731
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	ECI 8	376000	1880	1	19.96	21.40	1.393	-	-	-0.15	0.237	0.330
59	FR1 n2	20M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	376000	1880	1	19.96	21.40	1.393	-	-	-0.17	0.545	**0.759**
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 5	ECI 8	376000	1880	1	19.93	21.40	1.403	-	-	0.09	0.465	0.652
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 5	ECI 8	376000	1880	1	19.93	21.40	1.403	-	-	-0.17	0.502	0.704
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 5	ECI 8	376000	1880	1	19.93	21.40	1.403	-	-	-0.06	0.230	0.323
	FR1 n2	20M	QPSK	50	28	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	376000	1880	1	19.93	21.40	1.403	-	-	-0.08	0.514	0.721
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	ECI 8	376000	1880	1	17.49	18.80	1.352	-	-	-0.19	0.220	0.297
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	ECI 8	376000	1880	1	17.49	18.80	1.352	-	-	0.13	0.233	0.315
	FR1 n2	20M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	ECI 8	376000	1880	1	17.49	18.80	1.352	-	-	-0.11	0.082	0.111
	FR1 n2	20M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	ECI 8	376000	1880	1	17.49	18.80	1.352	-	-	0.05	0.280	0.379
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	10mm	Ant 6	ECI 8	376000	1880	1	17.47	18.80	1.358	-	-	0.08	0.210	0.285
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	10mm	Ant 6	ECI 8	376000	1880	1	17.47	18.80	1.358	-	-	0.13	0.223	0.303
	FR1 n2	20M	QPSK	50	28	DFT-15	Left Side	10mm	Ant 6	ECI 8	376000	1880	1	17.47	18.80	1.358	-	-	0.09	0.078	0.106
	FR1 n2	20M	QPSK	50	28	DFT-15	Top Side	10mm	Ant 6	ECI 8	376000	1880	1	17.47	18.80	1.358	-	-	-0.19	0.267	0.363
2600 MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	21100	2535	1	16.95	17.60	1.161	-	-	-0.03	0.124	0.144
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	21100	2535	1	16.95	17.60	1.161	-	-	-0.1	0.179	0.208
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	21100	2535	1	16.95	17.60	1.161	-	-	-0.18	0.049	0.057
	LTE Band 7	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	21100	2535	1	16.95	17.60	1.161	-	-	-0.19	0.310	0.360
	LTE Band 7C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	21100+ 21298	2535+ 2554.8	1	16.71	17.60	1.227	-	-	-0.19	0.263	0.323
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	21100	2535	1	16.93	17.60	1.167	-	-	-0.18	0.118	0.138
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	21100	2535	1	16.93	17.60	1.167	-	-	0.01	0.171	0.200
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	21100	2535	1	16.93	17.60	1.167	-	-	-0.03	0.047	0.055
	LTE Band 7	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	21100	2535	1	16.93	17.60	1.167	-	-	0.04	0.296	0.345
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	21100	2535	1	16.40	17.00	1.148	-	-	-0.02	0.101	0.116
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	21100	2535	1	16.40	17.00	1.148	-	-	-0.04	0.126	0.145
	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	21100	2535	1	16.40	17.00	1.148	-	-	0.03	0.077	0.088
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	21100	2535	1	16.40	17.00	1.148	-	-	-0.06	0.304	0.349
	LTE Band 7C	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	21100+ 21298	2535+ 2554.8	1	16.26	17.00	1.186	-	-	-0.1	0.290	0.344
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	21100	2535	1	16.34	17.00	1.164	-	-	-0.18	0.096	0.112
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	21100	2535	1	16.34	17.00	1.164	-	-	-0.15	0.120	0.140
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	21100	2535	1	16.34	17.00	1.164	-	-	-0.05	0.074	0.086
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	21100	2535	1	16.34	17.00	1.164	-	-	-0.03	0.290	0.338
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	21100	2535	1	16.85	17.80	1.245	-	-	0.13	0.134	0.167
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	21100	2535	1	16.85	17.80	1.245	-	-	-0.06	0.174	0.217
60	LTE Band 7	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	21100	2535	1	16.85	17.80	1.245	-	-	-0.06	0.299	**0.372**
	LTE Band 7C	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	21100+ 21298	2535+ 2554.8	1	16.63	17.80	1.309	-	-	0.17	0.274	0.359
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	21100	2535	1	16.85	17.80	1.245	-	-	-0.08	0.029	0.036
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	21100	2535	1	16.82	17.80	1.253	-	-	-0.18	0.128	0.160
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	21100	2535	1	16.82	17.80	1.253	-	-	-0.1	0.166	0.208
	LTE Band 7	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	21100	2535	1	16.82	17.80	1.253	-	-	0.09	0.286	0.358
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	21100	2535	1	16.82	17.80	1.253	-	-	-0.1	0.028	0.035
	LTE Band 7	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	21100	2535	1	14.35	15.00	1.161	-	-	0.19	0.100	0.116
	LTE Band 7	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	21100	2535	1	14.35	15.00	1.161	-	-	0.06	0.124	0.144

	LTE Band 7	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	21100	2535	1	14.35	15.00	1.161	-	-	0.01	0.212	0.246
	LTE Band 7C	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	21100+ 21298	2535+ 2554.8	1	14.04	15.00	1.247	-	-	0.18	0.181	0.226
	LTE Band 7	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	21100	2535	1	14.35	15.00	1.161	-	-	-0.14	0.028	0.033
	LTE Band 7	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	21100	2535	1	14.31	15.00	1.172	-	-	-0.15	0.095	0.111
	LTE Band 7	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	21100	2535	1	14.31	15.00	1.172	-	-	-0.13	0.118	0.138
	LTE Band 7	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	21100	2535	1	14.31	15.00	1.172	-	-	0.14	0.202	0.237
	LTE Band 7	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	21100	2535	1	14.31	15.00	1.172	-	-	-0.06	0.027	0.032
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	38000	2595	1	20.42	20.90	1.117	62.9	1.006	0.02	0.195	0.219
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	38000	2595	1	20.42	20.90	1.117	62.9	1.006	-0.19	0.257	0.289
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	38000	2595	1	20.42	20.90	1.117	62.9	1.006	0.01	0.062	0.070
61	LTE Band 38	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	38000	2595	1	20.42	20.90	1.117	62.9	1.006	-0.16	0.465	**0.522**
	LTE Band 38C	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	37901+ 38099	2585.1+ 2604.9	1	19.97	20.90	1.239	62.9	1.006	0.15	0.403	0.502
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	38000	2595	1	20.35	20.90	1.135	62.9	1.006	0.15	0.196	0.224
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	38000	2595	1	20.35	20.90	1.135	62.9	1.006	0.15	0.255	0.291
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	38000	2595	1	20.35	20.90	1.135	62.9	1.006	0.11	0.060	0.069
	LTE Band 38	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	38000	2595	1	20.35	20.90	1.135	62.9	1.006	0.14	0.457	0.522
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	38000	2595	1	19.77	20.20	1.104	62.9	1.006	0.14	0.098	0.109
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	38000	2595	1	19.77	20.20	1.104	62.9	1.006	-0.01	0.118	0.131
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	38000	2595	1	19.77	20.20	1.104	62.9	1.006	-0.19	0.093	0.103
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	38000	2595	1	19.77	20.20	1.104	62.9	1.006	0.12	0.357	0.397
	LTE Band 38C	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	37901+ 38099	2585.1+ 2604.9	1	19.50	20.20	1.175	62.9	1.006	0.19	0.317	0.375
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	38000	2595	1	19.74	20.20	1.112	62.9	1.006	0.09	0.094	0.105
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	38000	2595	1	19.74	20.20	1.112	62.9	1.006	-0.08	0.113	0.126
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	38000	2595	1	19.74	20.20	1.112	62.9	1.006	0.01	0.089	0.100
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	38000	2595	1	19.74	20.20	1.112	62.9	1.006	-0.15	0.341	0.381
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	38000	2595	1	20.37	20.80	1.104	62.9	1.006	-0.09	0.176	0.195
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	38000	2595	1	20.37	20.80	1.104	62.9	1.006	0.07	0.234	0.260
	LTE Band 38	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	38000	2595	1	20.37	20.80	1.104	62.9	1.006	0.02	0.400	0.444
	LTE Band 38C	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	37901+ 38099	2585.1+ 2604.9	1	20.08	20.80	1.180	62.9	1.006	-0.09	0.348	0.413
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	38000	2595	1	20.37	20.80	1.104	62.9	1.006	0.02	0.041	0.046
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	38000	2595	1	20.35	20.80	1.109	62.9	1.006	-0.07	0.162	0.181
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	38000	2595	1	20.35	20.80	1.109	62.9	1.006	0.12	0.219	0.244
	LTE Band 38	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	38000	2595	1	20.35	20.80	1.109	62.9	1.006	0.13	0.372	0.415
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	38000	2595	1	20.35	20.80	1.109	62.9	1.006	0.17	0.035	0.039
	LTE Band 38	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	38000	2595	1	18.16	18.70	1.132	62.9	1.006	0.02	0.147	0.167
	LTE Band 38	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	38000	2595	1	18.16	18.70	1.132	62.9	1.006	-0.07	0.188	0.214
	LTE Band 38	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	38000	2595	1	18.16	18.70	1.132	62.9	1.006	0	0.330	0.376
	LTE Band 38C	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	37901+ 38099	2585.1+ 2604.9	1	17.69	18.70	1.262	62.9	1.006	0.15	0.282	0.358
	LTE Band 38	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	38000	2595	1	18.16	18.70	1.132	62.9	1.006	0.16	0.034	0.039
	LTE Band 38	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	38000	2595	1	18.14	18.70	1.138	62.9	1.006	0.09	0.140	0.160
	LTE Band 38	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	38000	2595	1	18.14	18.70	1.138	62.9	1.006	0.07	0.180	0.206
	LTE Band 38	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	38000	2595	1	18.14	18.70	1.138	62.9	1.006	-0.16	0.315	0.361
	LTE Band 38	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	38000	2595	1	18.14	18.70	1.138	62.9	1.006	-0.02	0.032	0.037
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 5	ECI 8	40620	2593	1	20.34	20.90	1.138	62.9	1.006	-0.17	0.183	0.209
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 5	ECI 8	40620	2593	1	20.34	20.90	1.138	62.9	1.006	0.12	0.254	0.291
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 5	ECI 8	40620	2593	1	20.34	20.90	1.138	62.9	1.006	-0.19	0.074	0.085
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	40620	2593	1	20.34	20.90	1.138	62.9	1.006	-0.02	0.531	0.608
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	39750	2506	1	20.31	20.90	1.146	62.9	1.006	0.05	0.427	0.492
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	40185	2549.5	1	20.28	20.90	1.153	62.9	1.006	0.07	0.476	0.552
	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	41055	2636.5	1	20.26	20.90	1.159	62.9	1.006	0.13	0.515	0.600
62	LTE Band 41	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	41490	2680	1	20.29	20.90	1.151	62.9	1.006	-0.09	0.528	**0.611**
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Bottom Side	10mm	Ant 5	ECI 8	41490	2680	1	21.60	22.50	1.230	42.9	1.009	-0.18	0.476	0.591
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 5	ECI 8	40620	2593	1	20.29	20.90	1.151	62.9	1.006	0.14	0.175	0.203
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 5	ECI 8	40620	2593	1	20.29	20.90	1.151	62.9	1.006	-0.11	0.243	0.281

	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 5	ECI 8	40620	2593	1	20.29	20.90	1.151	62.9	1.006	-0.09	0.071	0.082
	LTE Band 41	20M	QPSK	50	0	-	Bottom Side	10mm	Ant 5	ECI 8	40620	2593	1	20.29	20.90	1.151	62.9	1.006	-0.04	0.507	0.587
	LTE Band 41	20M	QPSK	100	0	-	Bottom Side	10mm	Ant 5	ECI 8	40620	2593	1	20.28	20.90	1.153	62.9	1.006	0.15	0.483	0.560
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 6	ECI 8	40620	2593	1	19.19	19.70	1.125	62.9	1.006	-0.03	0.106	0.120
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 6	ECI 8	40620	2593	1	19.19	19.70	1.125	62.9	1.006	0.19	0.133	0.150
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 6	ECI 8	40620	2593	1	19.19	19.70	1.125	62.9	1.006	-0.07	0.057	0.064
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	40620	2593	1	19.19	19.70	1.125	62.9	1.006	0	0.350	0.396
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Top Side	10mm	Ant 6	ECI 8	40620	2593	1	20.47	21.30	1.211	42.9	1.009	-0.12	0.319	0.390
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 6	ECI 8	40620	2593	1	19.14	19.70	1.138	62.9	1.006	-0.05	0.101	0.116
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 6	ECI 8	40620	2593	1	19.14	19.70	1.138	62.9	1.006	0.15	0.127	0.145
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 6	ECI 8	40620	2593	1	19.14	19.70	1.138	62.9	1.006	-0.09	0.054	0.062
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 6	ECI 8	40620	2593	1	19.14	19.70	1.138	62.9	1.006	-0.17	0.334	0.382
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 7	ECI 8	40620	2593	1	18.76	19.30	1.132	62.9	1.006	0.06	0.153	0.174
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 7	ECI 8	40620	2593	1	18.76	19.30	1.132	62.9	1.006	-0.09	0.198	0.226
	LTE Band 41	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	40620	2593	1	18.76	19.30	1.132	62.9	1.006	-0.1	0.339	0.386
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 7	ECI 8	40620	2593	1	18.76	19.30	1.132	62.9	1.006	0.07	0.041	0.047
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Right Side	10mm	Ant 7	ECI 8	40620	2593	1	20.28	20.90	1.153	42.9	1.009	0.16	0.311	0.362
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 7	ECI 8	40620	2593	1	18.35	19.30	1.245	62.9	1.006	-0.02	0.137	0.172
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 7	ECI 8	40620	2593	1	18.35	19.30	1.245	62.9	1.006	-0.15	0.171	0.214
	LTE Band 41	20M	QPSK	50	0	-	Right Side	10mm	Ant 7	ECI 8	40620	2593	1	18.35	19.30	1.245	62.9	1.006	0	0.301	0.377
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 7	ECI 8	40620	2593	1	18.35	19.30	1.245	62.9	1.006	-0.02	0.035	0.044
	LTE Band 41	20M	QPSK	1	0	-	Front	10mm	Ant 11	ECI 8	40620	2593	1	18.31	18.80	1.119	62.9	1.006	0.17	0.136	0.153
	LTE Band 41	20M	QPSK	1	0	-	Back	10mm	Ant 11	ECI 8	40620	2593	1	18.31	18.80	1.119	62.9	1.006	0.02	0.171	0.193
	LTE Band 41	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	40620	2593	1	18.31	18.80	1.119	62.9	1.006	-0.11	0.335	0.377
	LTE Band 41	20M	QPSK	1	0	-	Top Side	10mm	Ant 11	ECI 8	40620	2593	1	18.31	18.80	1.119	62.9	1.006	-0.18	0.022	0.025
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Left Side	10mm	Ant 11	ECI 8	40620	2593	1	19.72	20.40	1.169	42.9	1.009	-0.19	0.296	0.349
	LTE Band 41	20M	QPSK	50	0	-	Front	10mm	Ant 11	ECI 8	40620	2593	1	18.29	18.80	1.125	62.9	1.006	-0.15	0.130	0.147
	LTE Band 41	20M	QPSK	50	0	-	Back	10mm	Ant 11	ECI 8	40620	2593	1	18.29	18.80	1.125	62.9	1.006	0.12	0.163	0.184
	LTE Band 41	20M	QPSK	50	0	-	Left Side	10mm	Ant 11	ECI 8	40620	2593	1	18.29	18.80	1.125	62.9	1.006	-0.15	0.320	0.362
	LTE Band 41	20M	QPSK	50	0	-	Top Side	10mm	Ant 11	ECI 8	40620	2593	1	18.29	18.80	1.125	62.9	1.006	0.11	0.021	0.024
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 5	ECI 8	507000	2535	1	18.57	19.30	1.183	-	-	-0.05	0.195	0.231
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 5	ECI 8	507000	2535	1	18.57	19.30	1.183	-	-	0.05	0.241	0.285
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 5	ECI 8	507000	2535	1	18.57	19.30	1.183	-	-	0.16	0.090	0.106
	FR1 n7	40M	QPSK	1	1	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	507000	2535	1	18.57	19.30	1.183	-	-	-0.15	0.253	0.299
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 5	ECI 8	507000	2535	1	18.55	19.30	1.189	-	-	0.05	0.186	0.221
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 5	ECI 8	507000	2535	1	18.55	19.30	1.189	-	-	0.11	0.230	0.273
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 5	ECI 8	507000	2535	1	18.55	19.30	1.189	-	-	-0.01	0.086	0.102
	FR1 n7	40M	QPSK	108	54	DFT-15	Bottom Side	10mm	Ant 5	ECI 8	507000	2535	1	18.55	19.30	1.189	-	-	-0.08	0.242	0.288
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 6	ECI 8	507000	2535	1	17.02	17.80	1.197	-	-	-0.04	0.127	0.152
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 6	ECI 8	507000	2535	1	17.02	17.80	1.197	-	-	-0.08	0.153	0.183
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 6	ECI 8	507000	2535	1	17.02	17.80	1.197	-	-	0.11	0.048	0.057
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 6	ECI 8	507000	2535	1	17.02	17.80	1.197	-	-	-0.08	0.238	0.285
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 6	ECI 8	507000	2535	1	16.96	17.80	1.213	-	-	0.14	0.121	0.147
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 6	ECI 8	507000	2535	1	16.96	17.80	1.213	-	-	-0.12	0.146	0.177
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 6	ECI 8	507000	2535	1	16.96	17.80	1.213	-	-	-0.19	0.046	0.056
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 6	ECI 8	507000	2535	1	16.96	17.80	1.213	-	-	0.07	0.227	0.275
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 7	ECI 8	507000	2535	1	17.96	19.30	1.361	-	-	0.15	0.227	0.309
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 7	ECI 8	507000	2535	1	17.96	19.30	1.361	-	-	-0.14	0.301	0.410
63	FR1 n7	40M	QPSK	1	1	DFT-15	Right Side	10mm	Ant 7	ECI 8	507000	2535	1	17.96	19.30	1.361	-	-	0.06	0.493	**0.671**
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 7	ECI 8	507000	2535	1	17.96	19.30	1.361	-	-	-0.04	0.034	0.046
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 7	ECI 8	507000	2535	1	17.90	19.30	1.380	-	-	-0.03	0.217	0.300
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 7	ECI 8	507000	2535	1	17.90	19.30	1.380	-	-	-0.1	0.287	0.396
	FR1 n7	40M	QPSK	108	54	DFT-15	Right Side	10mm	Ant 7	ECI 8	507000	2535	1	17.90	19.30	1.380	-	-	-0.05	0.471	0.650
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 7	ECI 8	507000	2535	1	17.90	19.30	1.380	-	-	-0.14	0.032	0.044
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	10mm	Ant 11	ECI 8	507000	2535	1	15.59	16.70	1.291	-	-	-0.16	0.143	0.185

	FR1 n7	40M	QPSK	1	1	DFT-15	Back	10mm	Ant 11	ECI 8	507000	2535	1	15.59	16.70	1.291	-	-	-0.19	0.181	0.234
	FR1 n7	40M	QPSK	1	1	DFT-15	Left Side	10mm	Ant 11	ECI 8	507000	2535	1	15.59	16.70	1.291	-	-	0.04	0.273	0.353
	FR1 n7	40M	QPSK	1	1	DFT-15	Top Side	10mm	Ant 11	ECI 8	507000	2535	1	15.59	16.70	1.291	-	-	0.13	0.011	0.014
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	10mm	Ant 11	ECI 8	507000	2535	1	15.57	16.70	1.297	-	-	-0.12	0.137	0.178
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	10mm	Ant 11	ECI 8	507000	2535	1	15.57	16.70	1.297	-	-	-0.1	0.173	0.224
	FR1 n7	40M	QPSK	108	54	DFT-15	Left Side	10mm	Ant 11	ECI 8	507000	2535	1	15.57	16.70	1.297	-	-	0.12	0.261	0.339
	FR1 n7	40M	QPSK	108	54	DFT-15	Top Side	10mm	Ant 11	ECI 8	507000	2535	1	15.57	16.70	1.297	-	-	0.05	0.011	0.014
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	519000	2595	1	18.21	19.30	1.285	-	-	-0.13	0.168	0.216
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	519000	2595	1	18.21	19.30	1.285	-	-	0.13	0.236	0.303
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	ECI 8	519000	2595	1	18.21	19.30	1.285	-	-	-0.13	0.078	0.100
	FR1 n38	40M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	519000	2595	1	18.21	19.30	1.285	-	-	-0.15	0.263	0.338
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 5	ECI 8	519000	2595	1	18.20	19.30	1.288	-	-	0.1	0.163	0.210
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 5	ECI 8	519000	2595	1	18.20	19.30	1.288	-	-	0.16	0.254	0.327
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 5	ECI 8	519000	2595	1	18.20	19.30	1.288	-	-	0.16	0.072	0.093
	FR1 n38	40M	QPSK	50	28	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	519000	2595	1	18.20	19.30	1.288	-	-	0.08	0.231	0.298
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	519000	2595	1	17.59	18.90	1.352	-	-	-0.13	0.149	0.201
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	519000	2595	1	17.59	18.90	1.352	-	-	0.09	0.172	0.233
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	519000	2595	1	17.59	18.90	1.352	-	-	0.11	0.133	0.180
	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	519000	2595	1	17.59	18.90	1.352	-	-	0.06	0.304	0.411
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 6	ECI 8	519000	2595	1	17.56	18.90	1.361	-	-	-0.08	0.143	0.195
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 6	ECI 8	519000	2595	1	17.56	18.90	1.361	-	-	-0.13	0.171	0.233
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 6	ECI 8	519000	2595	1	17.56	18.90	1.361	-	-	-0.1	0.142	0.193
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 6	ECI 8	519000	2595	1	17.56	18.90	1.361	-	-	-0.04	0.301	0.410
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	519000	2595	1	17.96	19.20	1.330	-	-	-0.04	0.265	0.353
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	519000	2595	1	17.96	19.20	1.330	-	-	-0.17	0.348	0.463
64	FR1 n38	40M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	519000	2595	1	17.96	19.20	1.330	-	-	-0.13	0.520	**0.692**
	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	519000	2595	1	17.96	19.20	1.330	-	-	0.01	0.031	0.041
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 7	ECI 8	519000	2595	1	17.91	19.20	1.346	-	-	-0.14	0.253	0.341
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 7	ECI 8	519000	2595	1	17.91	19.20	1.346	-	-	0.16	0.332	0.447
	FR1 n38	40M	QPSK	50	28	DFT-30	Right Side	10mm	Ant 7	ECI 8	519000	2595	1	17.91	19.20	1.346	-	-	-0.15	0.497	0.669
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 7	ECI 8	519000	2595	1	17.91	19.20	1.346	-	-	0.02	0.030	0.040
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 8	519000	2595	1	15.64	16.70	1.276	-	-	-0.14	0.133	0.170
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 8	519000	2595	1	15.64	16.70	1.276	-	-	0.17	0.187	0.239
	FR1 n38	40M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 8	519000	2595	1	15.64	16.70	1.276	-	-	0.09	0.250	0.319
	FR1 n38	40M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 8	519000	2595	1	15.64	16.70	1.276	-	-	-0.05	0.012	0.015
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	10mm	Ant 11	ECI 8	519000	2595	1	15.54	16.70	1.306	-	-	-0.08	0.127	0.166
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	10mm	Ant 11	ECI 8	519000	2595	1	15.54	16.70	1.306	-	-	0.14	0.179	0.234
	FR1 n38	40M	QPSK	50	28	DFT-30	Left Side	10mm	Ant 11	ECI 8	519000	2595	1	15.54	16.70	1.306	-	-	0.1	0.239	0.312
	FR1 n38	40M	QPSK	50	28	DFT-30	Top Side	10mm	Ant 11	ECI 8	519000	2595	1	15.54	16.70	1.306	-	-	0.02	0.011	0.014
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 5	ECI 8	518598	2593	1	16.92	18.20	1.343	-	-	0.14	0.147	0.197
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 5	ECI 8	518598	2593	1	16.92	18.20	1.343	-	-	-0.01	0.171	0.230
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 5	ECI 8	518598	2593	1	16.92	18.20	1.343	-	-	-0.11	0.070	0.094
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	518598	2593	1	16.92	18.20	1.343	-	-	-0.17	0.207	0.278
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 5	ECI 8	518598	2593	1	16.85	18.20	1.365	-	-	-0.05	0.140	0.191
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 5	ECI 8	518598	2593	1	16.85	18.20	1.365	-	-	0.1	0.163	0.222
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 5	ECI 8	518598	2593	1	16.85	18.20	1.365	-	-	0.02	0.067	0.091
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Bottom Side	10mm	Ant 5	ECI 8	518598	2593	1	16.85	18.20	1.365	-	-	-0.03	0.198	0.270
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	518598	2593	1	16.62	17.50	1.225	-	-	0.09	0.130	0.159
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	518598	2593	1	16.62	17.50	1.225	-	-	0.08	0.149	0.182
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	518598	2593	1	16.62	17.50	1.225	-	-	0	0.103	0.126
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	518598	2593	1	16.62	17.50	1.225	-	-	0.08	0.192	0.235
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	518598	2593	1	16.60	17.50	1.230	-	-	0.17	0.124	0.153

	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	518598	2593	1	16.60	17.50	1.230	-	-	0.18	0.142	0.175
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	518598	2593	1	16.60	17.50	1.230	-	-	-0.15	0.098	0.121
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	518598	2593	1	16.60	17.50	1.230	-	-	0.04	0.183	0.225
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 7	ECI 8	518598	2593	1	16.67	17.60	1.239	-	-	-0.13	0.144	0.178
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 7	ECI 8	518598	2593	1	16.67	17.60	1.239	-	-	0.12	0.189	0.234
65	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 7	ECI 8	518598	2593	1	16.67	17.60	1.239	-	-	-0.11	0.289	**0.358**
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 7	ECI 8	518598	2593	1	16.67	17.60	1.239	-	-	-0.14	0.022	0.027
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 7	ECI 8	518598	2593	1	16.63	17.60	1.250	-	-	0.04	0.138	0.173
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 7	ECI 8	518598	2593	1	16.63	17.60	1.250	-	-	0.07	0.180	0.225
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 7	ECI 8	518598	2593	1	16.63	17.60	1.250	-	-	-0.08	0.276	0.345
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 7	ECI 8	518598	2593	1	16.63	17.60	1.250	-	-	-0.08	0.021	0.026
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 11	ECI 8	518598	2593	1	14.60	15.80	1.318	-	-	0.13	0.102	0.134
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 11	ECI 8	518598	2593	1	14.60	15.80	1.318	-	-	-0.16	0.148	0.195
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 11	ECI 8	518598	2593	1	14.60	15.80	1.318	-	-	0.06	0.209	0.276
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 11	ECI 8	518598	2593	1	14.60	15.80	1.318	-	-	0.17	0.016	0.021
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 11	ECI 8	518598	2593	1	14.54	15.80	1.337	-	-	-0.05	0.097	0.130
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 11	ECI 8	518598	2593	1	14.54	15.80	1.337	-	-	-0.13	0.141	0.188
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 11	ECI 8	518598	2593	1	14.54	15.80	1.337	-	-	0.11	0.200	0.267
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 11	ECI 8	518598	2593	1	14.54	15.80	1.337	-	-	-0.04	0.015	0.020
3-4GHz																					
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3500	1	13.20	14.50	1.349	-	-	0.07	0.048	0.065
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3500	1	13.20	14.50	1.349	-	-	-0.07	0.069	0.093
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3500	1	13.20	14.50	1.349	-	-	-0.08	0.038	0.051
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3500	1	13.20	14.50	1.349	-	-	-0.15	0.063	0.085
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3500	1	13.13	14.50	1.371	-	-	-0.03	0.046	0.063
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3500	1	13.13	14.50	1.371	-	-	0.19	0.066	0.090
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3500	1	13.13	14.50	1.371	-	-	0.02	0.036	0.049
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3500	1	13.13	14.50	1.371	-	-	-0.14	0.060	0.082
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	656000	3840	1	13.08	14.50	1.387	-	-	-0.17	0.076	0.105
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	656000	3840	1	13.08	14.50	1.387	-	-	0.13	0.092	0.128
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	656000	3840	1	13.08	14.50	1.387	-	-	-0.19	0.059	0.082
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	656000	3840	1	13.08	14.50	1.387	-	-	0.07	0.085	0.118
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	656000	3840	1	13.05	14.50	1.396	-	-	0.13	0.073	0.102
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	656000	3840	1	13.05	14.50	1.396	-	-	0.15	0.088	0.123
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	656000	3840	1	13.05	14.50	1.396	-	-	0.18	0.056	0.078
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	656000	3840	1	13.05	14.50	1.396	-	-	-0.16	0.081	0.113
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3500	1	15.72	16.90	1.312	-	-	0.13	0.106	0.139
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3500	1	15.72	16.90	1.312	-	-	0.13	0.176	0.231
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3500	1	15.72	16.90	1.312	-	-	0	0.225	0.295
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3500	1	15.72	16.90	1.312	-	-	0.14	0.064	0.084
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3500	1	15.70	16.90	1.318	-	-	-0.04	0.101	0.133
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3500	1	15.70	16.90	1.318	-	-	0.19	0.168	0.221
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3500	1	15.70	16.90	1.318	-	-	0.11	0.215	0.283

	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3500	1	15.70	16.90	1.318	-	-	-0.15	0.061	0.080
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	656000	3840	1	15.91	16.90	1.256	-	-	0.18	0.082	0.103
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	656000	3840	1	15.91	16.90	1.256	-	-	0.08	0.091	0.114
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	656000	3840	1	15.91	16.90	1.256	-	-	0.15	0.114	0.143
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	656000	3840	1	15.91	16.90	1.256	-	-	0.08	0.036	0.045
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	656000	3840	1	15.87	16.90	1.268	-	-	0.19	0.078	0.099
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	656000	3840	1	15.87	16.90	1.268	-	-	0.19	0.087	0.110
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	656000	3840	1	15.87	16.90	1.268	-	-	-0.01	0.109	0.138
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	656000	3840	1	15.87	16.90	1.268	-	-	-0.07	0.034	0.043
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3500	1	17.39	19.20	1.517	-	-	0.11	0.127	0.193
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3500	1	17.39	19.20	1.517	-	-	0	0.114	0.173
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3500	1	17.39	19.20	1.517	-	-	0.1	0.079	0.120
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3500	1	17.39	19.20	1.517	-	-	-0.02	0.157	0.238
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3500	1	17.36	19.20	1.528	-	-	0.14	0.121	0.185
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3500	1	17.36	19.20	1.528	-	-	-0.05	0.109	0.167
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3500	1	17.36	19.20	1.528	-	-	0.05	0.075	0.115
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3500	1	17.36	19.20	1.528	-	-	-0.08	0.150	0.229
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	656000	3840	1	17.54	19.20	1.466	-	-	0.13	0.048	0.070
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	656000	3840	1	17.54	19.20	1.466	-	-	0.11	0.063	0.092
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	656000	3840	1	17.54	19.20	1.466	-	-	-0.19	0.044	0.064
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	656000	3840	1	17.54	19.20	1.466	-	-	-0.04	0.082	0.120
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	656000	3840	1	17.46	19.20	1.493	-	-	-0.14	0.046	0.069
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	656000	3840	1	17.46	19.20	1.493	-	-	0.11	0.060	0.090
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	656000	3840	1	17.46	19.20	1.493	-	-	0.11	0.042	0.063
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	656000	3840	1	17.46	19.20	1.493	-	-	0.19	0.078	0.116
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3500	1	16.20	17.70	1.413	-	-	-0.07	0.114	0.161
	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3500	1	16.20	17.70	1.413	-	-	0.18	0.192	0.271
66	FR1 n77 Part 27Q	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3500	1	16.20	17.70	1.413	-	-	0.07	0.529	**0.747**
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3500	1	16.08	17.70	1.452	-	-	0.11	0.109	0.158
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3500	1	16.08	17.70	1.452	-	-	-0.06	0.183	0.266
	FR1 n77 Part 27Q	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3500	1	16.08	17.70	1.452	-	-	0.07	0.505	0.733
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	656000	3840	1	16.38	17.70	1.355	-	-	-0.03	0.132	0.179
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	656000	3840	1	16.38	17.70	1.355	-	-	-0.12	0.142	0.192
	FR1 n77 Part 27O	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	656000	3840	1	16.38	17.70	1.355	-	-	0.14	0.213	0.289
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	656000	3840	1	16.31	17.70	1.377	-	-	0.04	0.126	0.174
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	656000	3840	1	16.31	17.70	1.377	-	-	-0.08	0.136	0.187
	FR1 n77 Part 27O	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	656000	3840	1	16.31	17.70	1.377	-	-	0.02	0.203	0.280
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3500	1	15.62	16.60	1.253	-	-	-0.06	0.094	0.118
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3500	1	15.62	16.60	1.253	-	-	0.08	0.121	0.152
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3500	1	15.62	16.60	1.253	-	-	0.03	0.062	0.078
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3500	1	15.62	16.60	1.253	-	-	0.06	0.109	0.137
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	633332	3500	1	15.56	16.60	1.271	-	-	-0.15	0.090	0.114
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	633332	3500	1	15.56	16.60	1.271	-	-	0	0.116	0.147

	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	633332	3500	1	15.56	16.60	1.271	-	-	0	0.059	0.075
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	633332	3500	1	15.56	16.60	1.271	-	-	-0.17	0.104	0.132
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 9	ECI 8	650000	3750	1	15.45	16.60	1.303	-	-	0.13	0.129	0.168
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 9	ECI 8	650000	3750	1	15.45	16.60	1.303	-	-	0.06	0.169	0.220
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 9	ECI 8	650000	3750	1	15.45	16.60	1.303	-	-	-0.01	0.097	0.126
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 9	ECI 8	650000	3750	1	15.45	16.60	1.303	-	-	0.16	0.159	0.207
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 9	ECI 8	650000	3750	1	15.43	16.60	1.309	-	-	0.18	0.123	0.161
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 9	ECI 8	650000	3750	1	15.43	16.60	1.309	-	-	0.1	0.161	0.211
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 9	ECI 8	650000	3750	1	15.43	16.60	1.309	-	-	-0.18	0.093	0.122
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 9	ECI 8	650000	3750	1	15.43	16.60	1.309	-	-	-0.09	0.152	0.199
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3500	1	16.10	17.80	1.479	-	-	0.01	0.126	0.186
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3500	1	16.10	17.80	1.479	-	-	-0.1	0.184	0.272
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3500	1	16.10	17.80	1.479	-	-	-0.13	0.218	0.322
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3500	1	16.10	17.80	1.479	-	-	-0.14	0.034	0.050
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	633332	3500	1	16.06	17.80	1.493	-	-	0	0.120	0.179
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	633332	3500	1	16.06	17.80	1.493	-	-	-0.13	0.176	0.263
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	633332	3500	1	16.06	17.80	1.493	-	-	0.06	0.208	0.311
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	633332	3500	1	16.06	17.80	1.493	-	-	0.14	0.032	0.048
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 8	ECI 8	650000	3750	1	16.38	17.80	1.387	-	-	0.15	0.093	0.129
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 8	ECI 8	650000	3750	1	16.38	17.80	1.387	-	-	0.11	0.122	0.169
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Right Side	10mm	Ant 8	ECI 8	650000	3750	1	16.38	17.80	1.387	-	-	0.07	0.138	0.191
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 8	ECI 8	650000	3750	1	16.38	17.80	1.387	-	-	-0.11	0.028	0.039
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 8	ECI 8	650000	3750	1	16.29	17.80	1.416	-	-	-0.16	0.089	0.126
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 8	ECI 8	650000	3750	1	16.29	17.80	1.416	-	-	-0.1	0.117	0.166
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Right Side	10mm	Ant 8	ECI 8	650000	3750	1	16.29	17.80	1.416	-	-	-0.18	0.132	0.187
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 8	ECI 8	650000	3750	1	16.29	17.80	1.416	-	-	-0.08	0.027	0.038
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3500	1	19.28	20.80	1.419	-	-	0.06	0.248	0.352
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3500	1	19.28	20.80	1.419	-	-	-0.09	0.219	0.311
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3500	1	19.28	20.80	1.419	-	-	0.12	0.137	0.194
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3500	1	19.28	20.80	1.419	-	-	-0.17	0.266	0.377
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	633332	3500	1	19.25	20.80	1.429	-	-	0.05	0.237	0.339
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	633332	3500	1	19.25	20.80	1.429	-	-	-0.14	0.209	0.299
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	633332	3500	1	19.25	20.80	1.429	-	-	-0.04	0.131	0.187
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	633332	3500	1	19.25	20.80	1.429	-	-	-0.11	0.254	0.363
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 6	ECI 8	650000	3750	1	19.36	20.80	1.393	-	-	0.15	0.108	0.150
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 6	ECI 8	650000	3750	1	19.36	20.80	1.393	-	-	0.03	0.124	0.173
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 6	ECI 8	650000	3750	1	19.36	20.80	1.393	-	-	0.14	0.093	0.130
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Top Side	10mm	Ant 6	ECI 8	650000	3750	1	19.36	20.80	1.393	-	-	-0.17	0.147	0.205
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 6	ECI 8	650000	3750	1	19.29	20.80	1.416	-	-	0.07	0.103	0.146
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 6	ECI 8	650000	3750	1	19.29	20.80	1.416	-	-	0.11	0.118	0.167
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 6	ECI 8	650000	3750	1	19.29	20.80	1.416	-	-	0.04	0.089	0.126
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Top Side	10mm	Ant 6	ECI 8	650000	3750	1	19.29	20.80	1.416	-	-	-0.16	0.140	0.198
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3500	1	18.49	19.60	1.291	-	-	0.14	0.224	0.289

	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3500	1	18.49	19.60	1.291	-	-	-0.03	0.301	0.389
67	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3500	1	18.49	19.60	1.291	-	-	0.03	0.664	**0.857**
	FR1 n78 Part 27Q_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3500	2	18.49	19.60	1.291	-	-	0.04	0.611	0.789
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	633332	3500	1	18.37	19.60	1.327	-	-	0.19	0.214	0.284
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	633332	3500	1	18.37	19.60	1.327	-	-	-0.02	0.287	0.381
	FR1 n78 Part 27Q_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3500	1	18.37	19.60	1.327	-	-	-0.12	0.634	0.842
	FR1 n78 Part 27Q_HPUE	100M	QPSK	270	0	DFT-30	Left Side	10mm	Ant 0	ECI 8	633332	3500	1	18.26	19.60	1.361	-	-	0.06	0.605	0.824
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Front	10mm	Ant 0	ECI 8	650000	3750	1	18.73	19.60	1.222	-	-	-0.02	0.196	0.239
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Back	10mm	Ant 0	ECI 8	650000	3750	1	18.73	19.60	1.222	-	-	0.04	0.264	0.323
	FR1 n78 Part 27O_HPUE	100M	QPSK	1	1	DFT-30	Left Side	10mm	Ant 0	ECI 8	650000	3750	1	18.73	19.60	1.222	-	-	-0.05	0.414	0.506
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Front	10mm	Ant 0	ECI 8	650000	3750	1	18.69	19.60	1.233	-	-	-0.18	0.187	0.231
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Back	10mm	Ant 0	ECI 8	650000	3750	1	18.69	19.60	1.233	-	-	0.16	0.252	0.311
	FR1 n78 Part 27O_HPUE	100M	QPSK	135	69	DFT-30	Left Side	10mm	Ant 0	ECI 8	650000	3750	1	18.69	19.60	1.233	-	-	-0.13	0.395	0.487

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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											
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 7	Standalone	39	2441	1	18.60	20.50	1.549	76.88	1.301	-0.04	0.157	0.316
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 7	Standalone	39	2441	1	18.60	20.50	1.549	76.88	1.301	0.05	0.213	0.429
68	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Standalone	39	2441	1	18.60	20.50	1.549	76.88	1.301	0.08	0.346	**0.697**
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 7	Standalone	39	2441	1	18.60	20.50	1.549	76.88	1.301	0.15	0.022	0.044
	Bluetooth	DH5 1Mbps	Front	10mm	Ant 7	Simultaneous(WWAN+BT+2.4G/5G)	39	2441	1	12.30	13.30	1.259	76.88	1.301	-0.11	0.034	0.056
	Bluetooth	DH5 1Mbps	Back	10mm	Ant 7	Simultaneous(WWAN +BT+2.4G/5G)	39	2441	1	12.30	13.30	1.259	76.88	1.301	-0.12	0.046	0.075
	Bluetooth	DH5 1Mbps	Right Side	10mm	Ant 7	Simultaneous(WWAN +BT+2.4G/5G)	39	2441	1	12.30	13.30	1.259	76.88	1.301	-0.15	0.075	0.123
	Bluetooth	DH5 1Mbps	Top Side	10mm	Ant 7	Simultaneous(WWAN +BT+2.4G/5G)	39	2441	1	12.30	13.30	1.259	76.88	1.301	0.16	0.005	0.008
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 7+12	Standalone	1	2412	1	20.40	20.70	1.072	100	1.000	-0.02	0.266	0.285
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 7+12	Standalone	1	2412	1	20.40	20.70	1.072	100	1.000	-0.04	0.378	0.405
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7+12	Standalone	1	2412	1	20.40	20.70	1.072	100	1.000	-0.02	0.332	0.356
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7+12	Standalone	1	2412	1	20.40	20.70	1.072	100	1.000	-0.02	0.752	0.806
69	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7+12	Standalone	6	2437	1	19.79	20.70	1.234	100	1.000	-0.09	0.685	**0.845**
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7+12	Standalone	11	2462	1	20.31	20.70	1.093	100	1.000	0.07	0.721	0.788
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 7+12	Simultaneous(WWAN +2.4G)	1	2412	1	18.39	18.70	1.073	100	1.000	-0.02	0.190	0.204
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 7+12	Simultaneous(WWAN +2.4G)	1	2412	1	18.39	18.70	1.073	100	1.000	-0.04	0.271	0.291
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7+12	Simultaneous(WWAN +2.4G)	1	2412	1	18.39	18.70	1.073	100	1.000	-0.02	0.238	0.255
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7+12	Simultaneous(WWAN +2.4G)	1	2412	1	18.39	18.70	1.073	100	1.000	0.09	0.491	0.527
	WLAN2.4GHz	802.11b 1Mbps	Front	10mm	Ant 7+12	Simultaneous(WWAN +2.4G+BT)	1	2412	1	17.39	17.70	1.075	100	1.000	-0.02	0.151	0.162
	WLAN2.4GHz	802.11b 1Mbps	Back	10mm	Ant 7+12	Simultaneous(WWAN +2.4G+BT)	1	2412	1	17.39	17.70	1.075	100	1.000	-0.04	0.215	0.231
	WLAN2.4GHz	802.11b 1Mbps	Right Side	10mm	Ant 7+12	Simultaneous(WWAN +2.4G+BT)	1	2412	1	17.39	17.70	1.075	100	1.000	-0.02	0.189	0.203
	WLAN2.4GHz	802.11b 1Mbps	Top Side	10mm	Ant 7+12	Simultaneous(WWAN +2.4G+BT)	1	2412	1	17.39	17.70	1.075	100	1.000	0.09	0.380	0.408
	WLAN5.2GHz	802.11a 6Mbps	Front	10mm	Ant 9+8	Standalone	44	5220	1	18.90	19.00	1.022	96.97	1.031	0.08	0.187	0.197
	WLAN5.2GHz	802.11a 6Mbps	Back	10mm	Ant 9+8	Standalone	44	5220	1	18.90	19.00	1.022	96.97	1.031	-0.18	0.335	0.353
70	WLAN5.2GHz	802.11a 6Mbps	Right Side	10mm	Ant 9+8	Standalone	44	5220	1	18.90	19.00	1.022	96.97	1.031	0.06	0.543	**0.572**
	WLAN5.2GHz	802.11a 6Mbps	Top Side	10mm	Ant 9+8	Standalone	44	5220	1	18.90	19.00	1.022	96.97	1.031	0.03	0.374	0.394
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+8	Simultaneous(WWAN +2.4G+5G)	42	5210	1	15.91	16.20	1.070	86.52	1.156	-0.08	0.111	0.137
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+8	Simultaneous(WWAN +2.4G+5G)	42	5210	1	15.91	16.20	1.070	86.52	1.156	-0.02	0.200	0.247
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+8	Simultaneous(WWAN +2.4G+5G)	42	5210	1	15.91	16.20	1.070	86.52	1.156	0.01	0.264	0.327
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+8	Simultaneous(WWAN +2.4G+5G)	42	5210	1	15.91	16.20	1.070	86.52	1.156	0.1	0.223	0.276
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	42	5210	1	15.40	15.70	1.072	86.52	1.156	-0.06	0.099	0.123
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	42	5210	1	15.40	15.70	1.072	86.52	1.156	0.07	0.178	0.221
	WLAN5.2GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	42	5210	1	15.40	15.70	1.072	86.52	1.156	0.18	0.235	0.291

	WLAN5.2GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	42	5210	1	15.40	15.70	1.072	86.52	1.156	-0.09	0.199	0.247
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+8	Standalone	155	5775	1	16.13	16.70	1.140	86.52	1.156	0.06	0.162	0.214
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+8	Standalone	155	5775	1	16.13	16.70	1.140	86.52	1.156	0.12	0.173	0.228
71	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+8	Standalone	155	5775	1	16.13	16.70	1.140	86.52	1.156	0.1	0.351	**0.463**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+8	Standalone	155	5775	1	16.13	16.70	1.140	86.52	1.156	0.04	0.252	0.332
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	155	5775	1	15.65	16.20	1.136	86.52	1.156	-0.16	0.144	0.189
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	155	5775	1	15.65	16.20	1.136	86.52	1.156	0.09	0.154	0.202
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	155	5775	1	15.65	16.20	1.136	86.52	1.156	-0.05	0.313	0.411
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+8	Simultaneous(WWAN +5G+BT)	155	5775	1	15.65	16.20	1.136	86.52	1.156	-0.19	0.225	0.296
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	10mm	Ant 9+8	Simultaneous(WWAN +2.4G+5G)	155	5775	1	15.16	15.70	1.132	86.52	1.156	-0.16	0.129	0.169
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	10mm	Ant 9+8	Simultaneous(WWAN +2.4G+5G)	155	5775	1	15.16	15.70	1.132	86.52	1.156	0.06	0.137	0.179
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Right Side	10mm	Ant 9+8	Simultaneous(WWAN +2.4G+5G)	155	5775	1	15.16	15.70	1.132	86.52	1.156	0.03	0.279	0.365
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Top Side	10mm	Ant 9+8	Simultaneous(WWAN+2.4G+5G)	155	5775	1	15.16	15.70	1.132	86.52	1.156	0.11	0.200	0.262

15.3 Body Worn Accessory SAR

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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)
750 MHz																					
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	23095	707.5	1	20.39	21.10	1.178	-	-	0.04	0.058	0.068
	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	23095	707.5	1	20.39	21.10	1.178	-	-	0.03	0.066	0.078
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 0	ECI 3	23095	707.5	1	20.35	21.10	1.189	-	-	0.11	0.055	0.065
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 0	ECI 3	23095	707.5	1	20.35	21.10	1.189	-	-	0.17	0.064	0.076
	LTE Band 12	10M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	23095	707.5	1	21.36	22.10	1.186	-	-	-0.13	0.127	0.151
72	LTE Band 12	10M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	23095	707.5	1	21.36	22.10	1.186	-	-	-0.04	0.136	**0.161**
	LTE Band 12	10M	QPSK	25	0	-	Front	15mm	Ant 1	ECI 3	23095	707.5	1	21.29	22.10	1.205	-	-	-0.05	0.121	0.146
	LTE Band 12	10M	QPSK	25	0	-	Back	15mm	Ant 1	ECI 3	23095	707.5	1	21.29	22.10	1.205	-	-	-0.02	0.130	0.157
	LTE Band 17	10M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	23790	710	1	21.55	22.10	1.135	-	-	0.16	0.118	0.134
	LTE Band 17	10M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	23790	710	1	21.55	22.10	1.135	-	-	0.14	0.127	0.144
	LTE Band 17	10M	QPSK	25	0	-	Front	15mm	Ant 0	ECI 3	23790	710	1	21.52	22.10	1.143	-	-	-0.05	0.111	0.127
	LTE Band 17	10M	QPSK	25	0	-	Back	15mm	Ant 0	ECI 3	23790	710	1	21.52	22.10	1.143	-	-	-0.15	0.119	0.136
	LTE Band 17	10M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	23790	710	1	22.48	23.10	1.153	-	-	-0.01	0.227	0.262
73	LTE Band 17	10M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	23790	710	1	22.48	23.10	1.153	-	-	0.02	0.278	**0.321**
	LTE Band 17	10M	QPSK	25	0	-	Front	15mm	Ant 1	ECI 3	23790	710	1	22.47	23.10	1.156	-	-	0.09	0.217	0.251
	LTE Band 17	10M	QPSK	25	0	-	Back	15mm	Ant 1	ECI 3	23790	710	1	22.47	23.10	1.156	-	-	0.12	0.265	0.306
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	23230	782	1	22.73	23.40	1.167	-	-	-0.16	0.097	0.113
	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	23230	782	1	22.73	23.40	1.167	-	-	0.14	0.108	0.126
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 0	ECI 3	23230	782	1	22.32	23.40	1.282	-	-	-0.19	0.086	0.110
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 0	ECI 3	23230	782	1	22.32	23.40	1.282	-	-	0.07	0.095	0.122
	LTE Band 13	10M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	23230	782	1	23.00	23.80	1.202	-	-	-0.19	0.228	0.274
74	LTE Band 13	10M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	23230	782	1	23.00	23.80	1.202	-	-	0.03	0.245	**0.295**
	LTE Band 13	10M	QPSK	25	0	-	Front	15mm	Ant 1	ECI 3	23230	782	1	22.93	23.80	1.222	-	-	-0.15	0.203	0.248
	LTE Band 13	10M	QPSK	25	0	-	Back	15mm	Ant 1	ECI 3	23230	782	1	22.93	23.80	1.222	-	-	0.13	0.207	0.253
	FR1 n12	15M	QPSK	1	1	-	Front	15mm	Ant 0	ECI 3	141500	707.5	1	18.57	19.70	1.297	-	-	0.08	0.046	0.060
	FR1 n12	15M	QPSK	1	1	-	Back	15mm	Ant 0	ECI 3	141500	707.5	1	18.57	19.70	1.297	-	-	0.04	0.050	0.065
	FR1 n12	15M	QPSK	36	22	-	Front	15mm	Ant 0	ECI 3	141500	707.5	1	18.44	19.70	1.337	-	-	-0.08	0.044	0.059
	FR1 n12	15M	QPSK	36	22	-	Back	15mm	Ant 0	ECI 3	141500	707.5	1	18.44	19.70	1.337	-	-	-0.14	0.048	0.064
	FR1 n12	15M	QPSK	1	1	-	Front	15mm	Ant 1	ECI 3	141500	707.5	1	19.35	20.60	1.334	-	-	0.09	0.049	0.065
76	FR1 n12	15M	QPSK	1	1	-	Back	15mm	Ant 1	ECI 3	141500	707.5	1	19.35	20.60	1.334	-	-	0.04	0.100	**0.133**
	FR1 n12	15M	QPSK	36	22	-	Front	15mm	Ant 1	ECI 3	141500	707.5	1	19.23	20.60	1.371	-	-	-0.09	0.047	0.064
	FR1 n12	15M	QPSK	36	22	-	Back	15mm	Ant 1	ECI 3	141500	707.5	1	19.23	20.60	1.371	-	-	0.1	0.095	0.130
835 MHz																					
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	15mm	Ant 0	ECI 3	189	836.4	1	28.07	28.60	1.130	-	-	-0.14	0.416	0.470
77	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	15mm	Ant 0	ECI 3	189	836.4	1	28.07	28.60	1.130	-	-	-0.17	0.461	**0.521**
	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	15mm	Ant 0	ECI 3	189	836.4	2	28.07	28.60	1.130	-	-	-0.08	0.406	0.459
	GSM850	-	-	-	-	GPRS (3Tx slots)	Front	15mm	Ant 1	ECI 3	189	836.4	1	28.63	29.50	1.222	-	-	0.12	0.182	0.222
	GSM850	-	-	-	-	GPRS (3Tx slots)	Back	15mm	Ant 1	ECI 3	189	836.4	1	28.63	29.50	1.222	-	-	0.02	0.196	0.239
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 0	ECI 3	4182	836.4	1	22.75	23.20	1.109	-	-	0.09	0.265	0.294
78	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 0	ECI 3	4182	836.4	1	22.75	23.20	1.109	-	-	-0.1	0.305	**0.338**
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 1	ECI 3	4182	836.4	1	24.34	24.80	1.112	-	-	0.03	0.199	0.221
	WCDMA V	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 1	ECI 3	4182	836.4	1	24.34	24.80	1.112	-	-	-0.11	0.224	0.249
	LTE Band 18	15M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	23925	822.5	1	22.51	22.90	1.094	-	-	-0.11	0.216	0.236
	LTE Band 18	15M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	23925	822.5	1	22.51	22.90	1.094	-	-	0	0.235	0.257
	LTE Band 18	15M	QPSK	36	0	-	Front	15mm	Ant 0	ECI 3	23925	822.5	1	22.44	22.90	1.112	-	-	0.08	0.206	0.229
	LTE Band 18	15M	QPSK	36	0	-	Back	15mm	Ant 0	ECI 3	23925	822.5	1	22.44	22.90	1.112	-	-	0.17	0.224	0.249
	LTE Band 18	15M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	23925	822.5	1	24.78	25.00	1.052	-	-	-0.16	0.227	0.239
79	LTE Band 18	15M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	23925	822.5	1	24.78	25.00	1.052	-	-	-0.03	0.266	**0.280**
	LTE Band 18	15M	QPSK	36	0	-	Front	15mm	Ant 1	ECI 3	23925	822.5	1	24.57	25.00	1.104	-	-	-0.15	0.217	0.240

	LTE Band 18	15M	QPSK	36	0	-	Back	15mm	Ant 1	ECI 3	23925	822.5	1	24.57	25.00	1.104	-	-	0.09	0.254	0.280
	LTE Band 19	15M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	24075	837.5	1	20.20	20.60	1.096	-	-	0.08	0.172	0.189
80	LTE Band 19	15M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	24075	837.5	1	20.20	20.60	1.096	-	-	0.01	0.203	**0.223**
	LTE Band 19	15M	QPSK	36	0	-	Front	15mm	Ant 0	ECI 3	24075	837.5	1	20.18	20.60	1.102	-	-	0.15	0.164	0.181
	LTE Band 19	15M	QPSK	36	0	-	Back	15mm	Ant 0	ECI 3	24075	837.5	1	20.18	20.60	1.102	-	-	-0.06	0.194	0.214
	LTE Band 19	15M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	24075	837.5	1	24.09	24.50	1.099	-	-	0	0.171	0.188
	LTE Band 19	15M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	24075	837.5	1	24.09	24.50	1.099	-	-	-0.12	0.197	0.217
	LTE Band 19	15M	QPSK	36	0	-	Front	15mm	Ant 1	ECI 3	24075	837.5	1	24.02	24.50	1.117	-	-	-0.14	0.163	0.182
	LTE Band 19	15M	QPSK	36	0	-	Back	15mm	Ant 1	ECI 3	24075	837.5	1	24.02	24.50	1.117	-	-	-0.01	0.188	0.210
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 0	ECI 3	26865	831.5	1	19.26	19.60	1.081	-	-	-0.17	0.120	0.130
	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 0	ECI 3	26865	831.5	1	19.26	19.60	1.081	-	-	-0.06	0.126	0.136
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 0	ECI 3	26865	831.5	1	19.22	19.60	1.091	-	-	0.01	0.115	0.126
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 0	ECI 3	26865	831.5	1	19.22	19.60	1.091	-	-	-0.18	0.120	0.131
	LTE Band 26	15M	QPSK	1	0	-	Front	15mm	Ant 1	ECI 3	26865	831.5	1	23.87	24.20	1.079	-	-	0.16	0.191	0.206
81	LTE Band 26	15M	QPSK	1	0	-	Back	15mm	Ant 1	ECI 3	26865	831.5	1	23.87	24.20	1.079	-	-	0.11	0.218	**0.235**
	LTE Band 26	15M	QPSK	36	0	-	Front	15mm	Ant 1	ECI 3	26865	831.5	1	23.84	24.20	1.086	-	-	-0.16	0.182	0.198
	LTE Band 26	15M	QPSK	36	0	-	Back	15mm	Ant 1	ECI 3	26865	831.5	1	23.84	24.20	1.086	-	-	-0.15	0.208	0.226
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 0	ECI 3	166300	831.5	1	21.86	23.10	1.330	-	-	-0.05	0.167	0.222
82	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 0	ECI 3	166300	831.5	1	21.86	23.10	1.330	-	-	-0.01	0.210	**0.279**
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 0	ECI 3	166300	831.5	1	21.79	23.10	1.352	-	-	0.06	0.159	0.215
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 0	ECI 3	166300	831.5	1	21.79	23.10	1.352	-	-	0.05	0.201	0.272
	FR1 n26	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 1	ECI 3	166300	831.5	1	23.66	25.10	1.393	-	-	0.09	0.135	0.188
	FR1 n26	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 1	ECI 3	166300	831.5	1	23.66	25.10	1.393	-	-	0.08	0.146	0.203
	FR1 n26	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 1	ECI 3	166300	831.5	1	23.62	25.10	1.406	-	-	0.01	0.129	0.181
	FR1 n26	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 1	ECI 3	166300	831.5	1	23.62	25.10	1.406	-	-	-0.1	0.139	0.195
1750 MHz																					
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	ECI 3	1413	1732.6	1	21.06	21.50	1.107	-	-	-0.19	0.160	0.177
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	ECI 3	1413	1732.6	1	21.06	21.50	1.107	-	-	0.05	0.184	0.204
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 6	ECI 3	1413	1732.6	1	20.74	21.10	1.086	-	-	-0.01	0.147	0.160
86	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 6	ECI 3	1413	1732.6	1	20.74	21.10	1.086	-	-	0.07	0.194	**0.211**
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 7	ECI 3	1413	1732.6	1	18.34	18.60	1.062	-	-	0	0.050	0.053
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 7	ECI 3	1413	1732.6	1	18.34	18.60	1.062	-	-	-0.17	0.059	0.063
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 11	ECI 3	1413	1732.6	1	20.82	21.30	1.117	-	-	-0.03	0.100	0.112
	WCDMA IV	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 11	ECI 3	1413	1732.6	1	20.82	21.30	1.117	-	-	0.12	0.129	0.144
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	20175	1732.5	1	21.08	22.10	1.265	-	-	0.12	0.163	0.206
	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	20175	1732.5	1	21.08	22.10	1.265	-	-	-0.15	0.182	0.230
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	20175	1732.5	1	21.02	22.10	1.282	-	-	0.15	0.156	0.200
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	20175	1732.5	1	21.02	22.10	1.282	-	-	-0.15	0.174	0.223
	LTE Band 4	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	20175	1732.5	1	21.15	22.10	1.245	-	-	-0.01	0.187	0.233
87	LTE Band 4	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	20175	1732.5	1	21.15	22.10	1.245	-	-	0.19	0.259	**0.322**
	LTE Band 4	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	20175	1732.5	1	21.12	22.10	1.253	-	-	-0.19	0.189	0.237
	LTE Band 4	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	20175	1732.5	1	21.12	22.10	1.253	-	-	0.01	0.247	0.310
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	132322	1745	1	21.08	22.00	1.236	-	-	0.19	0.167	0.206
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	132322	1745	1	21.08	22.00	1.236	-	-	-0.09	0.214	0.264
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	132322	1745	1	20.99	22.00	1.262	-	-	0.06	0.174	0.220
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	132322	1745	1	20.99	22.00	1.262	-	-	0.04	0.202	0.255
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	132322	1745	1	20.70	21.90	1.318	-	-	-0.02	0.134	0.177
88	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	132322	1745	1	20.70	21.90	1.318	-	-	0.18	0.225	**0.297**
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	132322	1745	1	20.64	21.90	1.337	-	-	0.1	0.147	0.196
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	132322	1745	1	20.64	21.90	1.337	-	-	-0.03	0.180	0.241
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	132322	1745	1	21.41	22.10	1.172	-	-	0.16	0.090	0.105
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	132322	1745	1	21.41	22.10	1.172	-	-	-0.01	0.111	0.130
	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	132322	1745	1	21.11	22.10	1.256	-	-	0.19	0.081	0.102
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	132322	1745	1	21.11	22.10	1.256	-	-	0.14	0.094	0.118
	LTE Band 66	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	132322	1745	1	23.43	24.40	1.250	-	-	0.07	0.088	0.110
	LTE Band 66	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	132322	1745	1	23.43	24.40	1.250	-	-	-0.11	0.105	0.131

	LTE Band 66	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	132322	1745	1	22.90	24.40	1.413	-	-	-0.12	0.073	0.103
	LTE Band 66	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	132322	1745	1	22.90	24.40	1.413	-	-	0.1	0.091	0.129
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	ECI 3	349000	1745	1	21.58	23.00	1.387	-	-	0.16	0.222	0.308
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	ECI 3	349000	1745	1	21.58	23.00	1.387	-	-	0.12	0.233	0.323
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	ECI 3	349000	1745	1	21.55	23.00	1.396	-	-	0.13	0.212	0.296
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	ECI 3	349000	1745	1	21.55	23.00	1.396	-	-	-0.11	0.223	0.311
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	ECI 3	349000	1745	1	21.39	22.50	1.291	-	-	-0.09	0.175	0.226
89	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	ECI 3	349000	1745	1	21.39	22.50	1.291	-	-	-0.06	0.260	**0.336**
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 6	ECI 3	349000	1745	1	21.36	22.50	1.300	-	-	0.1	0.167	0.217
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 6	ECI 3	349000	1745	1	21.36	22.50	1.300	-	-	-0.05	0.248	0.322
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 7	ECI 3	349000	1745	1	21.80	23.00	1.318	-	-	-0.19	0.119	0.157
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 7	ECI 3	349000	1745	1	21.80	23.00	1.318	-	-	-0.19	0.135	0.178
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 7	ECI 3	349000	1745	1	21.74	23.00	1.337	-	-	-0.04	0.106	0.142
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 7	ECI 3	349000	1745	1	21.74	23.00	1.337	-	-	-0.05	0.124	0.166
	FR1 n66	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 3	349000	1745	1	23.96	25.30	1.361	-	-	0.06	0.104	0.142
	FR1 n66	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 3	349000	1745	1	23.96	25.30	1.361	-	-	-0.01	0.133	0.181
	FR1 n66	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 11	ECI 3	349000	1745	1	23.88	25.30	1.387	-	-	-0.18	0.100	0.139
	FR1 n66	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 11	ECI 3	349000	1745	1	23.88	25.30	1.387	-	-	0.08	0.129	0.179
1900 MHz																					
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	15mm	Ant 5	ECI 3	810	1909.8	1	27.40	28.50	1.288	-	-	-0.06	0.206	0.265
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	15mm	Ant 5	ECI 3	810	1909.8	1	27.40	28.50	1.288	-	-	0.16	0.254	0.327
	GSM1900	-	-	-	-	GPRS (2Tx slots)	Front	15mm	Ant 6	ECI 3	810	1909.8	1	25.55	27.00	1.396	-	-	-0.14	0.236	0.330
90	GSM1900	-	-	-	-	GPRS (2Tx slots)	Back	15mm	Ant 6	ECI 3	810	1909.8	1	25.55	27.00	1.396	-	-	0.09	0.264	**0.369**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 5	ECI 3	9400	1880	1	21.65	21.90	1.059	-	-	-0.01	0.197	0.209
91	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 5	ECI 3	9400	1880	1	21.65	21.90	1.059	-	-	0.1	0.240	**0.254**
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Front	15mm	Ant 6	ECI 3	9400	1880	1	19.28	19.40	1.028	-	-	0.07	0.182	0.187
	WCDMA II	-	-	-	-	RMC 12.2Kbps	Back	15mm	Ant 6	ECI 3	9400	1880	1	19.28	19.40	1.028	-	-	0.05	0.245	0.252
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	18900	1880	1	21.96	22.60	1.159	-	-	0.13	0.221	0.256
92	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	18900	1880	1	21.96	22.60	1.159	-	-	0.02	0.351	**0.407**
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	18900	1880	1	21.90	22.60	1.175	-	-	0	0.211	0.248
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	18900	1880	1	21.90	22.60	1.175	-	-	-0.02	0.335	0.394
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	18900	1880	1	19.48	19.80	1.076	-	-	0.08	0.184	0.198
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	18900	1880	1	19.48	19.80	1.076	-	-	0.1	0.230	0.248
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	18900	1880	1	19.48	19.80	1.076	-	-	0.18	0.176	0.189
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	18900	1880	1	19.48	19.80	1.076	-	-	0.19	0.220	0.237
	LTE Band 2	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	18900	1880	1	22.02	23.00	1.253	-	-	0.08	0.097	0.122
	LTE Band 2	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	18900	1880	1	22.02	23.00	1.253	-	-	-0.05	0.112	0.140
	LTE Band 2	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	18900	1880	1	21.45	23.00	1.429	-	-	0.03	0.081	0.116
	LTE Band 2	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	18900	1880	1	21.45	23.00	1.429	-	-	0.04	0.095	0.136
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	ECI 3	376000	1880	1	21.89	23.30	1.384	-	-	0.03	0.212	0.293
93	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	ECI 3	376000	1880	1	21.89	23.30	1.384	-	-	0.04	0.270	**0.374**
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 5	ECI 3	376000	1880	1	21.85	23.30	1.396	-	-	-0.08	0.208	0.290
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 5	ECI 3	376000	1880	1	21.85	23.30	1.396	-	-	-0.12	0.266	0.371
	FR1 n2	20M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	ECI 3	376000	1880	1	19.37	20.50	1.297	-	-	0.05	0.202	0.262
	FR1 n2	20M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	ECI 3	376000	1880	1	19.37	20.50	1.297	-	-	-0.13	0.256	0.332
	FR1 n2	20M	QPSK	50	28	DFT-15	Front	15mm	Ant 6	ECI 3	376000	1880	1	19.29	20.50	1.321	-	-	-0.07	0.198	0.262
	FR1 n2	20M	QPSK	50	28	DFT-15	Back	15mm	Ant 6	ECI 3	376000	1880	1	19.29	20.50	1.321	-	-	0.19	0.247	0.326
2600 MHz																					
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	21100	2535	1	18.95	19.50	1.135	-	-	0.11	0.119	0.135
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	21100	2535	1	18.95	19.50	1.135	-	-	0	0.135	0.153
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	21100+ 21298	2535+ 2554.8	1	18.62	19.50	1.225	-	-	-0.01	0.116	0.142
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	21100	2535	1	18.87	19.50	1.156	-	-	0.11	0.116	0.134
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	21100	2535	1	18.87	19.50	1.156	-	-	0.06	0.128	0.148
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	21100	2535	1	18.30	18.90	1.148	-	-	-0.13	0.079	0.091
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	21100	2535	1	18.30	18.90	1.148	-	-	0.02	0.104	0.119

	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	21100+ 21298	2535+ 2554.8	1	18.12	18.90	1.197	-	-	0.03	0.085	0.102
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	21100	2535	1	18.26	18.90	1.159	-	-	0.04	0.085	0.098
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	21100	2535	1	18.26	18.90	1.159	-	-	-0.18	0.100	0.116
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	21100	2535	1	18.46	19.50	1.271	-	-	-0.12	0.104	0.132
94	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	21100	2535	1	18.46	19.50	1.271	-	-	0.07	0.144	**0.183**
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	21100+ 21298	2535+ 2554.8	1	18.41	19.50	1.285	-	-	0.14	0.126	0.162
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	21100	2535	1	18.39	19.50	1.291	-	-	0.01	0.102	0.132
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	21100	2535	1	18.39	19.50	1.291	-	-	-0.19	0.131	0.169
	LTE Band 7	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	21100	2535	1	16.34	16.90	1.138	-	-	-0.15	0.078	0.089
	LTE Band 7	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	21100	2535	1	16.34	16.90	1.138	-	-	-0.19	0.091	0.104
	LTE Band 7C	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	21100+ 21298	2535+ 2554.8	1	15.92	16.90	1.253	-	-	0.04	0.080	0.100
	LTE Band 7	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	21100	2535	1	16.32	16.90	1.143	-	-	-0.1	0.070	0.080
	LTE Band 7	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	21100	2535	1	16.32	16.90	1.143	-	-	0.06	0.082	0.094
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	38000	2595	1	22.18	22.70	1.127	62.9	1.006	0.14	0.163	0.185
95	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	38000	2595	1	22.18	22.70	1.127	62.9	1.006	-0.13	0.218	**0.247**
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	37901+ 38099	2585.1+ 2604.9	1	21.77	22.70	1.239	62.9	1.006	0.02	0.181	0.226
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	38000	2595	1	22.10	22.70	1.148	62.9	1.006	-0.18	0.156	0.180
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	38000	2595	1	22.10	22.70	1.148	62.9	1.006	-0.18	0.208	0.240
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	38000	2595	1	21.56	22.00	1.107	62.9	1.006	-0.17	0.094	0.105
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	38000	2595	1	21.56	22.00	1.107	62.9	1.006	-0.05	0.121	0.135
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	37901+ 38099	2585.1+ 2604.9	1	21.31	22.00	1.172	62.9	1.006	-0.03	0.111	0.131
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	38000	2595	1	21.53	22.00	1.114	62.9	1.006	0.09	0.098	0.110
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	38000	2595	1	21.53	22.00	1.114	62.9	1.006	-0.11	0.112	0.126
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	38000	2595	1	20.93	21.30	1.089	62.9	1.006	-0.12	0.101	0.111
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	38000	2595	1	20.93	21.30	1.089	62.9	1.006	-0.15	0.143	0.157
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	37901+ 38099	2585.1+ 2604.9	1	20.61	21.30	1.172	62.9	1.006	-0.14	0.128	0.151
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	38000	2595	1	20.56	21.30	1.186	62.9	1.006	0.16	0.096	0.115
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	38000	2595	1	20.56	21.30	1.186	62.9	1.006	0.07	0.137	0.163
	LTE Band 38	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	38000	2595	1	20.03	20.60	1.140	62.9	1.006	0.09	0.096	0.110
	LTE Band 38	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	38000	2595	1	20.03	20.60	1.140	62.9	1.006	-0.05	0.127	0.146
	LTE Band 38C	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	37901+ 38099	2585.1+ 2604.9	1	19.58	20.60	1.265	62.9	1.006	0.05	0.105	0.134
	LTE Band 38	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	38000	2595	1	20.00	20.60	1.148	62.9	1.006	-0.17	0.096	0.111
	LTE Band 38	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	38000	2595	1	20.00	20.60	1.148	62.9	1.006	0.12	0.122	0.141
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 5	ECI 3	40620	2593	1	22.18	22.70	1.127	62.9	1.006	-0.13	0.154	0.175
96	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	40620	2593	1	22.18	22.70	1.127	62.9	1.006	0.05	0.179	**0.203**
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 5	ECI 3	40620	2593	1	23.19	24.30	1.291	42.9	1.009	-0.14	0.153	0.199
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 5	ECI 3	40620	2593	1	22.13	22.70	1.140	62.9	1.006	-0.09	0.139	0.159
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 5	ECI 3	40620	2593	1	22.13	22.70	1.140	62.9	1.006	-0.15	0.168	0.193
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 6	ECI 3	40620	2593	1	21.01	21.60	1.146	62.9	1.006	-0.15	0.109	0.126
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	40620	2593	1	21.01	21.60	1.146	62.9	1.006	0.15	0.124	0.143
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 6	ECI 3	40620	2593	1	22.22	23.20	1.253	42.9	1.009	0.07	0.114	0.144
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 6	ECI 3	40620	2593	1	20.99	21.60	1.151	62.9	1.006	-0.13	0.104	0.120
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 6	ECI 3	40620	2593	1	20.99	21.60	1.151	62.9	1.006	0.18	0.120	0.139
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 7	ECI 3	40620	2593	1	18.76	19.30	1.132	62.9	1.006	-0.01	0.068	0.077
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	40620	2593	1	18.76	19.30	1.132	62.9	1.006	-0.1	0.086	0.098
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 7	ECI 3	40620	2593	1	21.80	22.30	1.122	42.9	1.009	-0.02	0.113	0.128
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 7	ECI 3	40620	2593	1	18.35	19.30	1.245	62.9	1.006	-0.19	0.064	0.080
	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 7	ECI 3	40620	2593	1	18.35	19.30	1.245	62.9	1.006	0.04	0.076	0.095
	LTE Band 41	20M	QPSK	1	0	-	Front	15mm	Ant 11	ECI 3	40620	2593	1	19.95	20.60	1.161	62.9	1.006	0.09	0.092	0.107
	LTE Band 41	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	40620	2593	1	19.95	20.60	1.161	62.9	1.006	0.06	0.111	0.130
	LTE Band 41 HPUE	20M	QPSK	1	0	-	Back	15mm	Ant 11	ECI 3	40620	2593	1	21.37	22.20	1.211	42.9	1.009	0.12	0.101	0.123
	LTE Band 41	20M	QPSK	50	0	-	Front	15mm	Ant 11	ECI 3	40620	2593	1	19.90	20.60	1.175	62.9	1.006	-0.09	0.091	0.108

	LTE Band 41	20M	QPSK	50	0	-	Back	15mm	Ant 11	ECI 3	40620	2593	1	19.90	20.60	1.175	62.9	1.006	0.11	0.109	0.129
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 5	ECI 3	507000	2535	1	20.13	21.20	1.279	-	-	0.15	0.146	0.187
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 5	ECI 3	507000	2535	1	20.13	21.20	1.279	-	-	0.06	0.199	0.255
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 5	ECI 3	507000	2535	1	20.08	21.20	1.294	-	-	-0.12	0.139	0.180
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 5	ECI 3	507000	2535	1	20.08	21.20	1.294	-	-	0.16	0.190	0.246
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 6	ECI 3	507000	2535	1	19.10	19.60	1.122	-	-	-0.1	0.111	0.125
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 6	ECI 3	507000	2535	1	19.10	19.60	1.122	-	-	0.16	0.132	0.148
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 6	ECI 3	507000	2535	1	19.02	19.60	1.143	-	-	-0.04	0.106	0.121
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 6	ECI 3	507000	2535	1	19.02	19.60	1.143	-	-	0.11	0.126	0.144
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 7	ECI 3	507000	2535	1	19.85	21.20	1.365	-	-	0.04	0.154	0.210
97	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 7	ECI 3	507000	2535	1	19.85	21.20	1.365	-	-	0.19	0.223	**0.304**
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 7	ECI 3	507000	2535	1	19.79	21.20	1.384	-	-	-0.13	0.147	0.203
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 7	ECI 3	507000	2535	1	19.79	21.20	1.384	-	-	0.19	0.213	0.295
	FR1 n7	40M	QPSK	1	1	DFT-15	Front	15mm	Ant 11	ECI 3	507000	2535	1	17.22	18.60	1.374	-	-	-0.08	0.088	0.121
	FR1 n7	40M	QPSK	1	1	DFT-15	Back	15mm	Ant 11	ECI 3	507000	2535	1	17.22	18.60	1.374	-	-	-0.03	0.113	0.155
	FR1 n7	40M	QPSK	108	54	DFT-15	Front	15mm	Ant 11	ECI 3	507000	2535	1	17.19	18.60	1.384	-	-	0.15	0.084	0.116
	FR1 n7	40M	QPSK	108	54	DFT-15	Back	15mm	Ant 11	ECI 3	507000	2535	1	17.19	18.60	1.384	-	-	-0.18	0.108	0.149
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	ECI 3	519000	2595	1	19.67	21.10	1.390	-	-	-0.07	0.134	0.186
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	ECI 3	519000	2595	1	19.67	21.10	1.390	-	-	-0.19	0.139	0.193
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 5	ECI 3	519000	2595	1	19.60	21.10	1.413	-	-	0.12	0.128	0.181
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 5	ECI 3	519000	2595	1	19.60	21.10	1.413	-	-	0.1	0.133	0.188
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	519000	2595	1	19.60	20.80	1.318	-	-	-0.12	0.123	0.162
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	519000	2595	1	19.60	20.80	1.318	-	-	-0.03	0.144	0.190
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 6	ECI 3	519000	2595	1	19.52	20.80	1.343	-	-	-0.05	0.117	0.157
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 6	ECI 3	519000	2595	1	19.52	20.80	1.343	-	-	-0.1	0.138	0.185
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	ECI 3	519000	2595	1	19.57	20.90	1.358	-	-	-0.13	0.131	0.178
98	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	ECI 3	519000	2595	1	19.57	20.90	1.358	-	-	-0.02	0.145	**0.197**
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 7	ECI 3	519000	2595	1	19.56	20.90	1.361	-	-	0.13	0.124	0.169
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 7	ECI 3	519000	2595	1	19.56	20.90	1.361	-	-	0.12	0.139	0.189
	FR1 n38	40M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 3	519000	2595	1	17.17	18.50	1.358	-	-	0.05	0.083	0.113
	FR1 n38	40M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 3	519000	2595	1	17.17	18.50	1.358	-	-	-0.1	0.112	0.152
	FR1 n38	40M	QPSK	50	28	DFT-30	Front	15mm	Ant 11	ECI 3	519000	2595	1	17.09	18.50	1.384	-	-	0.04	0.083	0.115
	FR1 n38	40M	QPSK	50	28	DFT-30	Back	15mm	Ant 11	ECI 3	519000	2595	1	17.09	18.50	1.384	-	-	0.04	0.103	0.143
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 5	ECI 3	518598	2592.99	1	18.93	20.00	1.279	-	-	-0.04	0.118	0.151
99	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 5	ECI 3	518598	2592.99	1	18.93	20.00	1.279	-	-	-0.17	0.205	**0.262**
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 5	ECI 3	518598	2592.99	1	18.88	20.00	1.294	-	-	-0.12	0.113	0.146
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 5	ECI 3	518598	2592.99	1	18.88	20.00	1.294	-	-	-0.18	0.196	0.254
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	518598	2592.99	1	18.59	19.40	1.205	-	-	-0.01	0.108	0.130
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	518598	2592.99	1	18.59	19.40	1.205	-	-	-0.02	0.117	0.141
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	518598	2592.99	1	18.48	19.40	1.236	-	-	-0.09	0.103	0.127
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	518598	2592.99	1	18.48	19.40	1.236	-	-	0.04	0.112	0.138
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 7	ECI 3	518598	2592.99	1	18.49	19.50	1.262	-	-	0.08	0.063	0.079
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 7	ECI 3	518598	2592.99	1	18.49	19.50	1.262	-	-	-0.08	0.119	0.150
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 7	ECI 3	518598	2592.99	1	18.37	19.50	1.297	-	-	-0.17	0.060	0.078
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 7	ECI 3	518598	2592.99	1	18.37	19.50	1.297	-	-	0.11	0.114	0.148
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 11	ECI 3	518598	2592.99	1	16.58	17.70	1.294	-	-	0.14	0.074	0.096
	FR1 n41 HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 11	ECI 3	518598	2592.99	1	16.58	17.70	1.294	-	-	-0.12	0.104	0.135
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 11	ECI 3	518598	2592.99	1	16.56	17.70	1.300	-	-	0.19	0.071	0.092
	FR1 n41 HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 11	ECI 3	518598	2592.99	1	16.56	17.70	1.300	-	-	-0.02	0.099	0.129
3-4GHz																					
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	1	14.69	16.40	1.483	-	-	-0.1	0.011	0.016
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	1	14.69	16.40	1.483	-	-	-0.13	0.045	0.067
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	1	14.67	16.40	1.489	-	-	-0.11	0.010	0.015
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	1	14.67	16.40	1.489	-	-	-0.16	0.043	0.064
	FR1 n77	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	656000	3840	1	14.67	16.40	1.489	-	-	-0.06	0.062	0.092

	Part27O																				
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	656000	3840	1	14.67	16.40	1.489	-	-	0.13	0.093	0.139
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	656000	3840	1	14.59	16.40	1.517	-	-	0.15	0.059	0.090
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	656000	3840	1	14.59	16.40	1.517	-	-	-0.04	0.089	0.135
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	1	17.31	18.70	1.377	-	-	0	0.096	0.132
100	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	1	17.31	18.70	1.377	-	-	0.16	0.198	**0.273**
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	1	17.28	18.70	1.387	-	-	-0.08	0.092	0.128
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	1	17.28	18.70	1.387	-	-	-0.05	0.189	0.262
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	656000	3840	1	17.71	18.70	1.256	-	-	0.16	0.064	0.080
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	656000	3840	1	17.71	18.70	1.256	-	-	0.13	0.073	0.092
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	656000	3840	1	17.65	18.70	1.274	-	-	-0.16	0.061	0.078
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	656000	3840	1	17.65	18.70	1.274	-	-	-0.01	0.070	0.089
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	1	19.31	21.10	1.510	-	-	0.06	0.091	0.137
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	1	19.31	21.10	1.510	-	-	-0.1	0.074	0.112
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	1	19.26	21.10	1.528	-	-	0.11	0.087	0.133
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	1	19.26	21.10	1.528	-	-	-0.14	0.071	0.108
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 6	ECI 3	656000	3840	1	19.36	21.10	1.493	-	-	-0.09	0.072	0.107
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 6	ECI 3	656000	3840	1	19.36	21.10	1.493	-	-	-0.09	0.059	0.088
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	656000	3840	1	19.34	21.10	1.500	-	-	0.08	0.069	0.103
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	656000	3840	1	19.34	21.10	1.500	-	-	0.03	0.056	0.084
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	1	17.95	19.50	1.429	-	-	-0.05	0.100	0.143
	FR1 n77 Part27Q	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	1	17.95	19.50	1.429	-	-	0.12	0.190	0.271
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	1	17.93	19.50	1.435	-	-	-0.02	0.095	0.136
	FR1 n77 Part27Q	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	1	17.93	19.50	1.435	-	-	0.03	0.181	0.260
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	656000	3840	1	18.17	19.50	1.358	-	-	-0.08	0.088	0.120
	FR1 n77 Part27O	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	656000	3840	1	18.17	19.50	1.358	-	-	0.04	0.097	0.132
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	656000	3840	1	18.15	19.50	1.365	-	-	0.19	0.084	0.115
	FR1 n77 Part27O	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	656000	3840	1	18.15	19.50	1.365	-	-	0.16	0.093	0.127
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	1	17.41	18.50	1.285	-	-	-0.19	0.066	0.085
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	1	17.41	18.50	1.285	-	-	-0.13	0.081	0.104
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	633332	3499.98	1	17.36	18.50	1.300	-	-	-0.08	0.063	0.082
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	633332	3499.98	1	17.36	18.50	1.300	-	-	0.06	0.077	0.100
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 9	ECI 3	650000	3750	1	17.29	18.50	1.321	-	-	0.04	0.104	0.137
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 9	ECI 3	650000	3750	1	17.29	18.50	1.321	-	-	-0.15	0.210	0.277
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 9	ECI 3	650000	3750	1	17.27	18.50	1.327	-	-	-0.18	0.099	0.131
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 9	ECI 3	650000	3750	1	17.27	18.50	1.327	-	-	0.17	0.201	0.267
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	1	18.04	19.70	1.466	-	-	0.17	0.104	0.152
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	1	18.04	19.70	1.466	-	-	0.02	0.153	0.224
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	633332	3499.98	1	18.01	19.70	1.476	-	-	-0.17	0.099	0.146
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	633332	3499.98	1	18.01	19.70	1.476	-	-	-0.11	0.146	0.215
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 8	ECI 3	650000	3750	1	18.25	19.70	1.396	-	-	-0.02	0.075	0.105
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 8	ECI 3	650000	3750	1	18.25	19.70	1.396	-	-	-0.13	0.141	0.197
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 8	ECI 3	650000	3750	1	18.21	19.70	1.409	-	-	0.16	0.072	0.101

	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 8	ECI 3	650000	3750	1	18.21	19.70	1.409	-	-	-0.11	0.135	0.190
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	137	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	1	21.82	22.70	1.225	-	-	-0.11	0.206	0.252
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	137	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	1	21.82	22.70	1.225	-	-	0.09	0.193	0.236
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	633332	3499.98	1	21.72	22.70	1.253	-	-	0.1	0.197	0.247
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	633332	3499.98	1	21.72	22.70	1.253	-	-	-0.09	0.184	0.231
	FR1 n78 Part27O_HPUE	100M	QPSK	1	137	DFT-30	Front	15mm	Ant 6	ECI 3	650000	3750	1	22.01	22.70	1.172	-	-	-0.13	0.093	0.109
	FR1 n78 Part27O_HPUE	100M	QPSK	1	137	DFT-30	Back	15mm	Ant 6	ECI 3	650000	3750	1	22.01	22.70	1.172	-	-	0.1	0.091	0.107
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 6	ECI 3	650000	3750	1	21.87	22.70	1.211	-	-	0.02	0.089	0.108
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 6	ECI 3	650000	3750	1	21.87	22.70	1.211	-	-	0.05	0.087	0.105
	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	1	20.44	21.50	1.276	-	-	0.13	0.189	0.241
101	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	1	20.44	21.50	1.276	-	-	-0.17	0.294	**0.375**
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	633332	3499.98	1	20.37	21.50	1.297	-	-	-0.07	0.180	0.233
	FR1 n78 Part27Q_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	633332	3499.98	1	20.37	21.50	1.297	-	-	-0.17	0.281	0.365
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Front	15mm	Ant 0	ECI 3	650000	3750	1	20.74	21.50	1.191	-	-	0.03	0.129	0.154
	FR1 n78 Part27O_HPUE	100M	QPSK	1	1	DFT-30	Back	15mm	Ant 0	ECI 3	650000	3750	1	20.74	21.50	1.191	-	-	-0.12	0.206	0.245
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Front	15mm	Ant 0	ECI 3	650000	3750	1	20.64	21.50	1.219	-	-	0.14	0.123	0.150
	FR1 n78 Part27O_HPUE	100M	QPSK	135	69	DFT-30	Back	15mm	Ant 0	ECI 3	650000	3750	1	20.64	21.50	1.219	-	-	0.1	0.197	0.240

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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																	
	Bluetooth	DH5 1Mbps	Front	15mm	Ant 7	Standalone	39	2441	1	18.60	20.50	1.549	76.88	1.301	0.07	0.052	0.105
102	Bluetooth	DH5 1Mbps	Back	15mm	Ant 7	Standalone	39	2441	1	18.60	20.50	1.549	76.88	1.301	0.06	0.135	**0.272**
	WLAN2.4GHz	802.11b 1Mbps	Front	15mm	Ant 7+12	Standalone	1	2412	1	20.40	20.70	1.072	100	1.000	0.08	0.128	0.137
103	WLAN2.4GHz	802.11b 1Mbps	Back	15mm	Ant 7+12	Standalone	1	2412	1	20.40	20.70	1.072	100	1.000	-0.13	0.195	**0.209**
	WLAN5.2GHz	802.11a 6Mbps	Front	15mm	Ant 9+8	Standalone	44	5220	1	18.90	19.00	1.022	96.97	1.031	-0.02	0.101	0.106
104	WLAN5.2GHz	802.11a 6Mbps	Back	15mm	Ant 9+8	Standalone	44	5220	1	18.90	19.00	1.022	96.97	1.031	0.04	0.246	**0.259**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 9+8	Standalone	122	5610	1	15.82	16.20	1.090	86.52	1.156	-0.14	0.082	0.103
105	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9+8	Standalone	122	5610	1	15.82	16.20	1.090	86.52	1.156	0.02	0.215	**0.271**
	WLAN5.8GHz	802.11ac-VHT80 MCS0	Front	15mm	Ant 9+8	Standalone	155	5775	1	16.13	16.70	1.140	86.52	1.156	-0.03	0.092	0.121
106	WLAN5.8GHz	802.11ac-VHT80 MCS0	Back	15mm	Ant 9+8	Standalone	155	5775	1	16.13	16.70	1.140	86.52	1.156	0.01	0.188	**0.248**

15.4 Product specific 10g SAR

Plot No.	Band	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Sample	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																	
	WLAN5.3GHz	802.11a 6Mbps	Front	0mm	Ant 9+8	Standalone	52	5260	1	17.97	18.70	1.182	96.97	1.031	-0.04	0.799	0.974
	WLAN5.3GHz	802.11a 6Mbps	Back	0mm	Ant 9+8	Standalone	52	5260	1	17.97	18.70	1.182	96.97	1.031	-0.06	0.471	0.574
107	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 9+8	Standalone	52	5260	1	17.97	18.70	1.182	96.97	1.031	0.18	1.940	**2.365**
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 9+8	Standalone	52	5260	2	17.97	18.70	1.182	96.97	1.031	0.07	1.440	1.756
	WLAN5.3GHz	802.11a 6Mbps	Top Side	0mm	Ant 9+8	Standalone	52	5260	1	17.97	18.70	1.182	96.97	1.031	0.03	1.590	1.938
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 9+8	Standalone	56	5280	1	17.92	18.70	1.195	96.97	1.031	-0.1	1.880	2.317
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 9+8	Standalone	60	5300	1	17.86	18.70	1.215	96.97	1.031	0.03	1.810	2.266
	WLAN5.3GHz	802.11a 6Mbps	Right Side	0mm	Ant 9+8	Standalone	64	5320	1	17.85	18.70	1.216	96.97	1.031	-0.05	1.760	2.206
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Front	0mm	Ant 9+8	Standalone	122	5610	1	15.82	16.20	1.090	86.52	1.156	-0.19	0.823	1.037
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Back	0mm	Ant 9+8	Standalone	122	5610	1	15.82	16.20	1.090	86.52	1.156	-0.07	0.495	0.624
108	WLAN5.5GHz	802.11ac-VHT80 MCS0	Right Side	0mm	Ant 9+8	Standalone	122	5610	1	15.82	16.20	1.090	86.52	1.156	0.06	1.080	**1.361**
	WLAN5.5GHz	802.11ac-VHT80 MCS0	Top Side	0mm	Ant 9+8	Standalone	122	5610	1	15.82	16.20	1.090	86.52	1.156	0.02	0.905	1.141

15.5 Repeated SAR Measurement

<1g>

Plot No.	Band	BW (MHz)	Modulation	RB Size	RB offset	Mode	Test Position	Gap (mm)	Antenna	Power State	Ch.	Freq. (MHz)	Average Power (dBm)	Tune-Up Limit (dBm)	Tune-up Scaling Factor	Duty Cycle %	Duty Cycle Scaling Factor	Power Drift (dB)	Measured 1g SAR (W/kg)	Ratio	Reported 1g SAR (W/kg)
1st	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	189	836.4	24.99	25.60	1.151	-	-	-0.02	0.921	1	1.060
2nd	GSM850	-	-	-	-	GPRS (3Tx slots)	Left Cheek	0mm	Ant 0	ECI 5	189	836.4	24.99	25.60	1.151	-	-	-0.08	0.889	1.036	1.023
1st	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	132072	1720	17.57	18.70	1.297	-	-	-0.14	0.883	1	1.145
2nd	LTE Band 66	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 6	ECI 5	132072	1720	17.57	18.70	1.297	-	-	0.06	0.862	1.024	1.118
1st	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	18900	1880	20.49	21.50	1.262	-	-	0.16	0.882	1	1.113
2nd	LTE Band 2	20M	QPSK	1	0	-	Right Cheek	0mm	Ant 11	ECI 5	18900	1880	20.49	21.50	1.262	-	-	0.08	0.841	1.049	1.061
1st	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	16.58	17.50	1.236	-	-	-0.01	0.918	1	1.135
2nd	FR1 n38	40M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	519000	2595	16.58	17.50	1.236	-	-	-0.03	0.898	1.022	1.110
1st	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	14.35	15.60	1.334	-	-	-0.18	0.804	1	1.072
2nd	FR1 n78 Part27Q_HPUE	100M	QPSK	1	1	DFT-30	Right Cheek	0mm	Ant 6	ECI 5	633332	3499.98	14.35	15.60	1.334	-	-	0.02	0.758	1.061	1.011

General Note:

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

15.6 TDD LTE Linearity Data Analysis

General Note:

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

LTE Band 41(HPUE)-Linearity Data for ECI5-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.80	25.80
Reported 10g SAR (W/kg)	0.080	0.100
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	120.62	164.62
Linearity SAR (W/kg)	0.109	
% deviation from expected linearity		-8.41%

LTE Band 41(HPUE)-Linearity Data for ECI8-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.90	22.50
Reported 1g SAR (W/kg)	0.611	0.591
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	77.88	77.00
Linearity SAR (W/kg)	0.604	
% deviation from expected linearity		-2.17%

LTE Band 41(HPUE)-Linearity Data for ECI5-ANT6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.70	20.30
Reported 10g SAR (W/kg)	1.032	0.997
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	46.92	46.40
Linearity SAR (W/kg)	1.020	
% deviation from expected linearity		-2.29%

LTE Band 41(HPUE)-Linearity Data for ECI8-ANT6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.70	21.30
Reported 1g SAR (W/kg)	0.396	0.390
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	59.07	58.41
Linearity SAR (W/kg)	0.392	
% deviation from expected linearity		-0.39%

LTE Band 41(HPUE)-Linearity Data for ECI5-ANT7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.20	19.80
Reported 10g SAR (W/kg)	0.642	0.628
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	41.82	41.35
Linearity SAR (W/kg)	0.635	
% deviation from expected linearity		-1.07%

LTE Band 41(HPUE)-Linearity Data for ECI8-ANT7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.30	20.90
Reported 1g SAR (W/kg)	0.386	0.362
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	53.88	53.27
Linearity SAR (W/kg)	0.382	
% deviation from expected linearity		-5.15%

LTE Band 41(HPUE)-Linearity Data for ECI5-ANT11		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	14.80	16.40
Reported 10g SAR (W/kg)	0.370	0.344
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	19.12	18.90
Linearity SAR (W/kg)	0.366	
% deviation from expected linearity		-5.97%

LTE Band 41(HPUE)-Linearity Data for ECI8-ANT11		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	18.80	20.40
Reported 1g SAR (W/kg)	0.377	0.349
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	48.02	47.48
Linearity SAR (W/kg)	0.373	
% deviation from expected linearity		-6.37%

LTE Band 41(HPUE)-Linearity Data for ECI3-ANT5		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	22.70	24.30
Reported 1g SAR (W/kg)	0.201	0.199
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	117.87	116.54
Linearity SAR (W/kg)	0.199	
% deviation from expected linearity		0.13%

LTE Band 41(HPUE)-Linearity Data for ECI3-ANT6		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	21.60	23.20
Reported 1g SAR (W/kg)	0.143	0.144
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	91.50	90.47
Linearity SAR (W/kg)	0.141	
% deviation from expected linearity		1.85%
LTE Band 41(HPUE)-Linearity Data for ECI3-ANT7		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	19.30	22.30
Reported 1g SAR (W/kg)	0.098	0.128
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	53.88	73.53
Linearity SAR (W/kg)	0.134	
% deviation from expected linearity		-4.30%
LTE Band 41(HPUE)-Linearity Data for ECI3-ANT11		
	LTE Band 41 (Power Class 3)	LTE Band 41 (Power Class 2)
Maximum Tune up Power (dBm)	20.60	22.20
Reported 1g SAR (W/kg)	0.130	0.123
Duty Cycle	63.30%	43.30%
Frame Averaged (mW)	72.68	71.86
Linearity SAR (W/kg)	0.129	
% deviation from expected linearity		-4.31%

16. Simultaneous Transmission Analysis

No.	Simultaneous Transmission Configurations	Portable Handset			
		Head	Body-worn	Hotspot	Product specific 10g SAR
1.	WWAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
2.	WWAN + 5GHz WLAN	Yes	Yes	Yes	Yes
3.	WWAN + Bluetooth	Yes	Yes	Yes	Yes
4.	5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
5.	2.4GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
6.	5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
7.	WWAN +5GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
8.	WWAN +2.4GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
9.	WWAN +5GHz WLAN + 2.4GHz WLAN	Yes	Yes	Yes	Yes
10.	WWAN +5GHz WLAN + 2.4GHz WLAN + Bluetooth	Yes	Yes	Yes	Yes
11.	WWAN + 2.4GHz WLAN+NFC				Yes
12.	WWAN + 5GHz WLAN+NFC				Yes
13.	WWAN + Bluetooth+NFC				Yes
14.	5GHz WLAN + Bluetooth+NFC				Yes
15.	2.4GHz WLAN + Bluetooth+NFC				Yes
16.	5GHz WLAN + 2.4GHz WLAN+NFC				Yes
17.	WWAN +5GHz WLAN + Bluetooth+NFC				Yes
18.	WWAN +2.4GHz WLAN + Bluetooth+NFC				Yes
19.	WWAN +5GHz WLAN + 2.4GHz WLAN+NFC				Yes
20.	WWAN +5GHz WLAN + 2.4GHz WLAN + Bluetooth+NFC				Yes

General Note:

1. This device supports VoIP in GPRS, EGPRS, WCDMA, LTE and 5GNR (e.g. for 3rd-party VoIP), LTE supports VoLTE operation.
2. WWAN above includes 5G NR bands and EN-DC combination.
3. EUT will choose each GSM, WCDMA, LTE and 5GNR according to the network signal condition; therefore, they will not operate simultaneously at any moment.
4. This device 2.4GHz WLAN support hotspot operation and Bluetooth support tethering applications.
5. 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.
6. According to the EUT characteristic, WLAN 5GHz and Bluetooth can transmit simultaneously.
7. According to the EUT characteristic, WLAN 5GHz and WLAN 2.4GHz can transmit simultaneously.
8. According to the EUT characteristic, WLAN and Bluetooth share the same antenna, and they cannot transmit simultaneously, WLAN2.4GHz chain 1 and Bluetooth chain 0 can transmit simultaneously
9. NFC can transmit simultaneously with other Radios in extremity exposure condition.
10. The maximum SAR summation is calculated based on the same configuration and test position.
11. All licensed modes share the same antenna part and cannot transmit simultaneously.
12. MediaTek TA-SAR algorithm support to WWAN and WIFI/BT except NFC. And this device supports inter-band ULCA and EN-DC combination operations with component carriers from same antenna groups. TA-SAR algorithm controls the total RF exposure from both 4G and 5G NR and during inter-band ULCA active conditions to not exceed FCC limit. Therefore, simultaneous transmission compliance between 4G+5G NR operation is demonstrated in the Part 2 Report during algorithm validation. In this Report, simultaneous transmission compliance was evaluated with other Radios (WLAN or BT) using using one of 4G or 5G NR.
13. For standalone WWAN, always choose the highest SAR among all the selected WWAN bands within the selected antenna for each exposure position to perform simultaneous transmission analysis with WLAN/BT. This is the worst co-located analysis and can represent each band.
14. Per KDB 447498 D01v06, simultaneous transmission SAR is compliant if,
    i) 1g Scalar SAR summation < 1.6W/kg and 10g Scalar SAR summation < 4.0W/kg.
    ii) SPLSR = (SAR1 + SAR2)^1.5 / (min. separation distance, mm), and the peak separation distance is determined from the square root of [(x1-x2)2 + (y1-y2)2 + (z1-z2)2], where (x1, y1, z1) and (x2, y2, z2) are the coordinates of the extrapolated peak SAR locations in the zoom scan.
    iii) If SPLSR ≤ 0.04 for 1g SAR and SPLSR≤ 0.10 for 10g SAR, simultaneously transmission SAR measurement is

not necessary.

iv) Simultaneously transmission SAR measurement, and the reported multi-band 1g SAR < 1.6W/kg and 10g SAR < 4.0W/kg.

16.1 5G NR + LTE + External radio (e.g: NFC) Sim-Tx analysis

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

Since external radio (e.g: NFC) do not employ time-averaging, 1gSAR and 10gSAR measurement for external radio (e.g: NFC) 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

$$x*A + y*B + m \le 1$$
$$x + y = g \le 1$$
$$g + m \le 1$$

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

Let m = normalized reported SAR exposure ratio from external radio (e.g: NFC), then for compliance,

$$x * A + y * B + m \le 1.0 \quad (1)$$

$$x * A + y * B \le x * \max(A, B) + (g-x) * \max(A, B) \le \max(A, B)$$

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

If A + m ≤ 1.0 and B + m ≤ 1.0 can be proven, then “x * A + y * B + m ≤ 1.0”. Therefore, simultaneous transmission analysis for 5G NR + LTE + external radio (e.g: NFC) can be performed in two steps

Step 1: Prove total exposure ratio (TER) of LTE + external radio (e.g: NFC) < 1
Step 2: Prove total exposure ratio (TER) of 5G NR + external radio (e.g: NFC) < 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 * B + m ≤ 1.0, and
iii. x% * A + y * B ≤ 1.0

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

Above analysis is also apply to LTE/NR inter-band uplink, LTE(NR)1 + LTE(NR)2 + external radio (e.g: NFC) 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 + external radio (e.g: NFC) < 1.

16.2 Head Exposure Conditions

Exposure Position	3 WLAN2.4GHz Ant 7 1g SAR (W/kg)	4 WLAN5GHz Ant 8 1g SAR (W/kg)	3+4 Summed 1g SAR (W/kg)
Right Cheek	0.121	0.106	0.23
Right Tilted	0.058	0.075	0.13
Left Cheek	0.613	0.517	1.13
Left Tilted	0.170	0.127	0.30

Exposure Position	3 WLAN2.4GHz Ant 7+12 1g SAR (W/kg)	5 Bluetooth Ant 7 1g SAR (W/kg)	3+5 Summed 1g SAR (W/kg)
Right Cheek	0.144	0.230	0.37
Right Tilted	0.187	0.118	0.31
Left Cheek	0.517	0.906	1.42
Left Tilted	0.305	0.327	0.63

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	4 WLAN5GHz Ant 9+8 1g SAR (W/kg)	5 Bluetooth Ant 7 1g SAR (W/kg)	1+5 Summed 1g SAR (W/kg)	4+5 Summed 1g SAR (W/kg)
All Band	Right Cheek	1.160	0.509	0.120	1.28	0.63
	Right Tilted	0.963	0.570	0.062	1.03	0.63
	Left Cheek	1.005	0.999	0.442	1.45	1.44
	Left Tilted	0.854	0.796	0.171	1.03	0.97

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	3 WLAN2.4GHz Ant 7+12 1g SAR (W/kg)	4 WLAN5GHz Ant 9+8 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)
All Band	Right Cheek	1.160	0.101	0.191	1.26	1.35
	Right Tilted	0.963	0.132	0.215	1.10	1.18
	Left Cheek	1.005	0.365	0.378	1.37	1.38
	Left Tilted	0.854	0.216	0.300	1.07	1.15

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	3 WLAN2.4GHz Ant 7+12 1g SAR (W/kg)	4 WLAN5GHz Ant 9+8 1g SAR (W/kg)	5 Bluetooth Ant 7 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
All Band	Right Cheek	1.160	0.067	0.120	0.042	1.27	1.32
	Right Tilted	0.963	0.087	0.135	0.021	1.07	1.12
	Left Cheek	1.005	0.234	0.215	0.164	1.40	1.38
	Left Tilted	0.854	0.142	0.188	0.060	1.06	1.10

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	3 WLAN2.4GHz Ant 7 1g SAR (W/kg)	4 WLAN5GHz Ant 8 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
All Band	Right Cheek	1.160	0.044	0.049	1.25
	Right Tilted	0.963	0.020	0.038	1.02
	Left Cheek	1.005	0.218	0.261	**1.48**
	Left Tilted	0.854	0.060	0.058	0.97

16.3 Hotspot Exposure Conditions

WWAN Band	Exposure Position	3 WLAN2.4GHz Ant 7+12 1g SAR (W/kg)	4 WLAN5GHz Ant 9+8 1g SAR (W/kg)	5 Bluetooth Ant 7 1g SAR (W/kg)	3+4 Summed 1g SAR (W/kg)	3+5 Summed 1g SAR (W/kg)	4+5 Summed 1g SAR (W/kg)
All Band	Front	0.285	0.214	0.316	0.50	0.60	0.53
	Back	0.405	0.353	0.429	0.76	0.83	0.78
	Left side				0.00	0.00	0.00
	Right side	0.356	0.572	0.697	0.93	1.05	1.27
	Top side	0.845	0.394	0.044	1.24	0.89	0.44
	Bottom side				0.00	0.00	0.00

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	3 WLAN2.4GHz Ant 7+12 1g SAR (W/kg)	4 WLAN5GHz Ant 9+8 1g SAR (W/kg)	1+3 Summed 1g SAR (W/kg)	1+4 Summed 1g SAR (W/kg)
All Band	Front	0.676	0.204	0.214	0.88	0.89
	Back	0.731	0.291	0.353	1.02	1.08
	Left side	0.857			0.86	0.86
	Right side	0.713	0.255	0.572	0.97	1.29
	Top side	0.779	0.527	0.394	1.31	1.17
	Bottom side	0.815			0.82	0.82

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	3 WLAN2.4GHz Ant 7+12 1g SAR (W/kg)	4 WLAN5GHz Ant 9+8 1g SAR (W/kg)	5 Bluetooth Ant 7 1g SAR (W/kg)	1+3+5 Summed 1g SAR (W/kg)	1+4+5 Summed 1g SAR (W/kg)
All Band	Front	0.676	0.162	0.189	0.056	0.89	0.92
	Back	0.731	0.231	0.221	0.075	1.04	1.03
	Left side	0.857				0.86	0.86
	Right side	0.713	0.203	0.411	0.123	1.04	1.25
	Top side	0.779	0.408	0.296	0.008	1.20	1.08
	Bottom side	0.815				0.82	0.82

WWAN Band	Exposure Position	1 WWAN 1g SAR (W/kg)	3 WLAN2.4GHz Ant 7+12 1g SAR (W/kg)	4 WLAN5GHz Ant 9+8 1g SAR (W/kg)	1+3+4 Summed 1g SAR (W/kg)
All Band	Front	0.676	0.162	0.169	1.01
	Back	0.731	0.231	0.247	1.21
	Left side	0.857			0.86
	Right side	0.713	0.203	0.365	1.28
	Top side	0.779	0.408	0.276	1.46
	Bottom side	0.815			0.82

16.4 Body-Worn Accessory Exposure Conditions

WWAN Band	Exposure Position	1	3	4	5	1+3+4	1+3+5	1+4+5
		WWAN	WLAN2.4GHz Ant 7+12	WLAN5GHz Ant 9+8	Bluetooth Ant 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	0.470	0.137	0.121	0.105	0.73	0.71	0.70
	Back	0.521	0.209	0.271	0.272	1.00	1.00	1.06

16.5 Product specific 10g SAR Exposure Conditions

Remark:

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

Exposure Position	3	4	3+4
	WLAN5GHz Ant 9+8	NFC	Summed
	10g SAR (W/kg)	10g SAR (W/kg)	10g SAR (W/kg)
Front	1.037		1.04
Back	0.624	0.016	0.64
Left side			0.00
Right side	2.365		2.37
Top side	1.938		1.94
Bottom side			0.00

Test Engineer： Hank Huang, Kevin Xu, David Dai, Bin He

17. Uncertainty Assessment

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

18. References

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

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

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

[4] SPEAG DASY System Handbook

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

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

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

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

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

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

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

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

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

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